

DANCING METAL / DANCING FLESH: ALTERNATE  
OPPORTUNITIES FOR EMBODIMENT THROUGH  
CYBERNATED ADDENDA

by

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## ABSTRACT

The cyborg has been traditionally defined as a being that incorporates both biological and artificial parts. I am interested in expanding this definition, describing the cyborg as a person who is human+, a human being who has been added to, melding their reality with technological innovation for reasons that are aesthetic, functional and social. Integral to this new understanding is the concept of addenda, that which is added to the basic elements denoting ‘human.’

Cyborgs have been a source of cultural anxiety, presenting our greatest aspirations within the same physical body as our darkest fears. The materialization of the cyborg in performance art and popular culture has often been read as a potential doomsday for free will, consciousness, and humanity itself. This reading of the cyborg body favors duality, carving battle lines between the ‘natural’ human and the ‘artificial’ cyborg. I propose an alternate view of the cyborg as a living metaphor for choices of existence; a being that offers alternate discourses and experiences beyond the limit of our duality-laden world. The cyborg body can serve as a seductive invitation to experience the world in a new way opening digital eyes to freshly awakened wonder.

As humans we are infinitely complex creatures, slipping between categories while simultaneously occupying multiple classifications. Reclaiming our complexity, uniqueness, and abilities is one way that cyborg discourses allow us to delve more deeply into our humanity. A vast array of beautiful and enticing opportunities arises when we consider that the cyborg has the potential to inhabit a broad realm of identities, a kaleidoscopic personality and body, which reflect his/her unique experience of being in the world.

Throughout this thesis I will explore how new cyborg discourse can open up artistic, social and personal possibilities for human beings. By examining my own creative work with alternately-abled dancers, super-abled human beings, and personal experiences of embodiment I will engage with the cyborg body as something both functional and metaphoric. The cyborg body can serve as a new form of poetics, empowering individuals to make creative choices in their lives and delve deeper into their experienced humanity.

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## INTRODUCTION

Bones spiraling in metal, muscles propelling wires, blood trickling curiously over fizzing circuit boards, we are becoming. Human beings are presently engaged with a most beautiful form of becoming. As polar opposites mingle and fuse in thoughts and bodies, we are fashioning new ways to know and new ways to live. The process for creating knowledge, as the friction of once divergent ideas collide in interpretation and embodiment, is also a process for birthing new metaphors. As the bounds between fleshy body and technology blur, the cyborg emerges.

However the materialization of the cyborg in performance art has often been read as a potential doomsday for free will, consciousness, and humanity itself. William Haney concerns himself with the loss of humanity due to the rise of cyborg technologies. He declares:

The first person experience of pure consciousness may soon be under threat from posthuman biotechnology. The posthuman condition may undermine human nature, defined as the effortless capacity for transcending the mind's conceptual content, by forcibly overextending and thus jeopardizing the neurophysiology of consciousness. (Haney, 2006, p. vii).

Haney argues that with the rise of cyborg technology and continual incorporation of more and more technology into the body, something essentially human will be lost. He is not alone. As we look at popular culture and the depiction of cybernetic technology in film, literature, and other media we see continual anxiety surrounding the cyborg body.

In fictional works cyborgs embody our dreams and fears, the possibility of limitless potential melded with the terror of existential threat by cold and automatic machines. The cyborg more often than not becomes our villain, our monster, as if when we graft metal and circuitry into the body we simultaneously extract something that is “essentially” human. This reading of the cyborg body favors duality and dichotomy, ie: you are a robot, or you are a human being. Lost in this limiting binary is the seductive and wondrous possibility of being both/and. A vast array of beautiful and enticing opportunities arise when we consider that the cyborg has the potential to inhabit a broad realm of identities, a kaleidoscopic personality and body, which reflect his/her unique experience of being in the world.

I propose an alternate view of the cyborg as a living metaphor for choices of existence; a being that offers alternate discourses and experiences beyond the limit of our duality-laden world. The cyborg body, where technology kisses skin, can serve as a seductive invitation to experience the world in a new way, opening digital eyes to freshly awakened wonder.

This new understanding of the fluidity and possibility available in the cybernated body is supported by a more encompassing definition of the cyborg in my research. Traditionally, the cyborg has been defined as a being that incorporates both biological and artificial parts, a body that is mechanical and organic. To take this definition to its most gruesome extreme, as the technological artist Stelarc has done, the cyborg body is nothing but “meat and metal”, an evolutionary step up from the “obsolete”ness of the human body. His definition (and all its progeny in science fiction and horror) see the body as “full of physiological limitations, unable to compete with the comparative power

and speed of technology” (Dixon, 2007, p. 316). No wonder the cyborg is viewed with deep concern or disturbed fascination. This popular view replaces sinews with circuits and watches the mechanical monsters trudge away from possibility and deeper into duality.

I favor a more fluid classification, which offers the opportunity for bleeding discourses together to create new realities. “The cyborg is a person with addenda – something strange, foreign, other is added to the basic ingredients, which denote human” (Kuppers, 2006, p. 169). The cyborg body “enhanced and supplemented by technology” (p. 169), is not becoming less human, but practicing alternate ways to embody the human form and experience. The cyborg in Kupper’s understanding guides us toward a different form of embodiment, broadening our understanding of what is human in form, function, and identity. This definition is contingent upon understanding the term addenda as well. Throughout this thesis I will refer to technology, any form of foreign physicality or knowledge added to a basic human being, as “addenda.” The addenda we acquire are those things which make us human+. Far from an apocalyptic being, this cyborg body as it acquires addenda, enhances our humanity, and offers us new ways to embody the world.

Instead of a site for concern, I propose the cyborg body as a uniquely seductive invitation into alternate forms of embodiment. Kuppers argues that addenda serve as invitations into new possibility. “They not only act as semiotic marker of difference, but also as seductive performance invitations into a different form of embodiment” (Kuppers, 2006, p.169). By inhabiting cybernated bodies we are given permission to inhabit alternate worlds and permission to be seduced by the lure of the different. When we

relinquish the need for clear divisions and let go of that constructed barrier between ourselves and the other, we can enter the expanses in metaphor opened by cybernated existence.

According to this definition, we are already cyborgs. Consider the unique hybrid bodies we inhabit. We see with plastic eyes, we move with wheels and gears, we communicate with a speech of pixels and code. This technology appears as the simplicity and impermanence of a pair of glasses or the metal laid to bone of surgical implantation. It is the smart phone serving as a hub of social interaction, and the hydraulics and suspension of wheelchairs bringing the otherwise bedridden into a world of social reality. What a vast array of opportunities for being in the world! None of us negotiate the world completely apart from technology. In ancient times our addenda may have been perceived as magical, and some of that wonder still remains.

This research is particularly significant for me personally, because it has been enacted within my own body and in the bodies of my family members. Without the technology of cogs, hydraulics, and suspension, which make up her wheelchair, my sister, Elizabeth, would be bed-ridden. She can sit up in her chair or on our mother's lap because of metal plates and prongs in her hips and because of the rods in her spine. She can bear pressure on her feet because of the forks and pins in her ankles. Nothing gives her delight, reveals the deep beauty and goodness of her spirit like going outside, being with people, and moving in the world. She laughs, communicates, and ambulates with lively grace. These actions are made possible by embedded technology. I claim that this is not disability, but merely another way of being in the world. She has gained something very human by the implementation of technology.

Due to scoliosis surgery I had at the age of seventeen, my own body is held in line with two metal rods and a series of latches down my vertebrae. It is different being in this body. Not worse, just different. The addenda I carry, the technologies I've acquired, give me an individual way to experience my humanity in the world and to make creative choices in my life. This research is important to me as a dancer, an artist, and a human being. It offers me the opportunity to experience my own body as something both mechanical and beautiful. This metal is now a part of my true self and offers me alternate opportunities from which to choreograph, dance, and experience the world.

By inhabiting multiple worlds, cyborgs are able to open up the spaces between dichotomies and potentially offer new categories for living. Because cyborg bodies like mine exist as human+ they offer the possibility of transgressing boundaries and dualities. The cyborg has an opportunity to experience unique complexity, living in many worlds with ease. In the cyborg body “the boundary between human and animal is transgressed... and the leaky distinction... between animal-human (organism) and machine” (Haraway, 2000, p. 52). Haraway continues that cybernation “suggests a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves” (p. 57). Our society is based on dualities, translated to us so our self-definition becomes a collection of what we are not. “I am not this, so I am that.” Often we are trained in a society that loves simplicity to be either/or, neglecting the seductive and wondrous beauty of both/and. We are seen through lenses built on binaries, so we learn to construct identities formed from parts, only being one thing at a time. If we live cybernated lives we can potentially break through this segmented form of existence to find ourselves multilayered, complex, and whole beings.

This view removes difference from the position of a divider, and offers the opportunity for “sensual engagement with otherness” (Kuppers, 2006, p.170). A new view of disability is allowed by this seduction. I propose that cyborg research renders useless ideas of “disability” and replaces this archaic understanding with the hope of “alternate ability.” Instead of looking at bodies in wheelchairs, with crutches, or using other assistive devices with a sense of pathos or marked otherness, different bodies are viewed as gifted, able to negotiate the world in unique and fascinating ways.

In the following chapters I will explore the possibilities available when we view the cyborg body as uniquely human, capable, and empathetic. In the first chapter I will discuss my own cybernated body, how I had to remake my understanding of myself in order to experience my body as something mechanical and beautiful. This chapter will reference my creative work “Embodied Engineering,” a solo, dance for camera presented in the Fall 2011 student concert at the Marriott Center for Dance. This work is a very personal exploration of limits and range, struggling toward acceptance of and empowerment in my own cyborg self.

The second chapter will further explore bodies of marked, visible difference, and the re-understanding of these bodies as “alternately-abled.” I will use the process and product of my creative work “Metal Souls,” a piece in the Fall 2011 graduate concert, to aid this discussion. “Metal Souls” presents my sister, Elizabeth Yearsley, onstage as a complex individual with a unique perception of reality and an ability to experience the world in ways that could even generate envy in an audience. Looking beyond one marker of difference, a wheelchair, we attempted to present the range of possibilities she encounters and engages with daily.

In the third and final chapter I will discuss broader implications of cybernetic dance research, and the possibilities opened up when more traditional bodies become available to cyborg options. This chapter will reference “Human Reassembled”, a group work I choreographed for traditionally “able-bodied” dancers, presented in the Fall 2011 graduate concert. I will discuss the continued reluctance of some individuals to view themselves as cyborgs, and reexamine the opportunities available if we do render ourselves to this classification.

## CHAPTER 1

### EXPERIENCING THE EMPOWERED CYBORG SELF

Reenvisioning myself as a cyborg allowed me to see my own body as capable, eloquent, an empowered body, filled with hope for new possibilities. The redefining of cyborg technology as addenda in this sense taught me how to be human. At the age of seventeen I underwent surgery on my spine to correct three lateral deviations (curves) and one frontal deviation in my rib cage (rotation). Up until the day of my surgery I lived at the ballet barre, systematically training anomalies out of my body in favor of classical ideals of beauty and virtuosity. I spent my dance training eliminating alternate possibilities in favor of copied behavior. This form of replication mirrors the fear in McGee's and Maguire's work, studying the use of robotic technology to replicate human body parts. About the human body, they fear that researchers have "copied its behavior, rather than waiting to understand its intricacies" (McGee & Maguire, 2007, p. 292). I followed this system of robotics, copying human creation in artistry, but not having the patience to understand the intricacies of my own creativity or of my own body and self. To a certain degree I was not becoming an artist, I was making myself a machine. My body was operational before empathetic. Only when I was implanted with metal did dancing begin to make me human.

The surgical process of my spinal operation was a mystery to me. I laid in the recovery bed first shifting from one side of my body to the other, seeking a place where the strange sensations of simultaneous weight and frailty, of impenetrable steel and tissue paper skin didn't seem such a twisted and nauseating paradox. The only information I had to process was the internal snaps and slices of latches and rods warring with blood, bone, and skin. I felt like a host to invaders, metal fingers curling around my spine. The therapist and doctor assumed it would be easier for me to cope, if I didn't know exactly what had occurred in the mysterious spaces behind my ribs. The lived distance between my physical experience and intellectual understanding promoted a distancing of myself from my own body.

During this time I heard from many sympathetic visitors and even began trying to convince myself that technology was in a way an "answer" to my particular disability or disease. Quinlan and Bates note that this is a common able-ist view of cyborg technology. In their research able-bodied viewers of the 2007 television show *Bionic Woman* offered "the assumption that individuals with disabilities should be grateful to technology for restoring them to 'normal'" (Quinlan, 2009, p. 53). This view presents technology in a way as a "cure" for disability or failures to achieve normalcy. Attempting to hold this view created a paradox of feelings toward my surgery and the implantations it left against my bones. I felt I ought to be thankful for somehow being remade 'normal', however, the body I had was a far cry from the 'normal' I remembered. The result of this view was a sense of disempowerment and guilt over the resentful and negative feelings I harbored concerning this traumatic event. Within my research I am not interested in perpetuating this view of technology as a "cure" or "therapy" for what we see as abnormal.

Technology is an opportunity, it allows us new, potentially more aware and embodied, ways to be in the world. It should not limit the number of choices available to us.

It was three years later as a dance student studying kinesiology that I realized I did not know this new body I had fashioned. The only therapy I received after having scoliosis surgery was to retreat to the ballet barre, almost paralyzed, ignoring the newness in my skin and the guilt in my psyche. I became a master of muscle. I replaced eloquence with strength, teaching my back to work, to lift, to hold me up. Lashed together with tendons and force I became a collection of parts, some loved, some enslaved. For a kinesiology assignment I determined to understand what had taken place during the scoliosis surgery, what was now occurring or capable of occurring in my spine and how to best reassemble my body into a whole, lived in, loved entity.

Often humans imagine themselves to be a fixed thing; as if there is some state of normalcy to be discovered and maintained. People live as if there is an ideal state, moment, and function for their bodies to be found out, acquired and perpetuated. This worldview orients the track of an individual's existence toward a single "goal of self" and once past the point of the ideal to fixate all thought on a return to this purposeful moment. While desire and reminiscence should not be voided from our human experience, these two states cannot solely compound into a life of meaning or purpose. My research on cybernation within my own body suggests that this view of self is not the best understanding of reality available to me.

A better understanding is this: our bodies are malleable. Our identity is open to change. The more we understand and make ourselves available to this reality, the more dynamic and present our experience of reality can be. The addenda we acquire leave

marks on us, on our skin and in our bones. Addenda work in human beings like clay, shaping individuals with thick fingers. The aim of acquiring addenda no longer needs to be a struggle toward equilibrium, a desperate snag at normalcy. Addenda can serve to transport us past banality into poetry. In reflecting on what discussions are available to us with modern advances in art and science Aimee Mullins, model, athlete and double amputee, says that through our addenda we work in designing our bodies and fashioning our own identity. She comments:

It is no longer a conversation about overcoming deficiency. It is a conversation about augmentation. It is a conversation about potential. A prosthetic limb doesn't represent the need to replace loss anymore. It can stand as a symbol that the wearer has the power to create whatever it is that they want to create in that space. So people that society once considered to be disabled, can now become the architects of their own identities, and indeed continue to change those identities by designing their bodies from a place of empowerment. (Mullins, 2009)

After having scoliosis surgery, I considered myself to have experienced loss. On the surface I did not have the virtuosic arabesque that I thought made me something unique and thereby valuable. Internally, I had lost the experience of my own body as something powerful, beautiful, and intelligent. This fresh discourse replaces loss with strength, and function with aesthetic. As the experience of creating “Embodied Engineering” revealed to me, I can write new stories in my spine; my scars can serve as markers of beauty. More than any other location, the body we have is our own space in which we can enact new discourses and add to the collisions of knowledge occurring around and through us.

As a part of the project I interviewed the surgeon who worked on my spine and he showed me using a model of a spine with metal and latches affixed to it the process of the operation. In order to lay the rods directly against bone, the deepest spinal muscles, the

interspinales and intertransversarii were cut away from the bone. The latches used to affix metal to bone also required the muscles to be cut away. A graft was laid over the top of the work, encasing the metal in bone. The “heaviness” I experienced in my spine was a result of several layers of material added to the vertebral column.

This knowledge changed the entire way I understood my body. While working so hard to build muscle, I was targeting the larger more superficial muscles that remained intact during the process. The smaller muscles, closer to the bone, did not have sufficient time to recover from the trauma and resume fine movement articulation. This new understanding revolutionized the way I train for and practice dance. Dance is a mental game, a continual challenge to find deeper muscles, to let go on the surface and breathe life into the core. My dancing is now a journey from muscular disability to malleable, embodied intelligence and subtle grace. “Embodied Engineering” a dance film I created as a solo for myself is a part of this unique development from locked down power grounded in fear to immense wonder at the subtle articulation possible in a spine (and body) returning to life.

“Embodied Engineering” was constructed out of a solo developed from concepts of articulation and strength in my spine and a movement improvisation focused on what possibilities are available in my back. Due to a lack of understanding, I have often felt disassociated from the back of my body, at times unable to feel warmth, touch and other sensations, or to envision how my body looks moving in three-dimensional space. The camera served to bring visual information to my creative research and reveal the actual range of movement available in my spine as opposed to what I have imagined to occur in the strange void behind me. The camera served as an addendum to my body in the

process. Kuppers speaks of this cyborg performance experience using body and technology, when he says, “Cameras, which today are conveniently small and easy to deal with, become normalized extensions of our vision apparatuses and our moving bodies” (Kuppers, 2004, p. 105). The camera not only extended the possibilities of my limited vision, but also enabled me to construct movement and poetry within my body. The initial goal of this project was to bring light, understanding, and acceptance to an area of my body that I have ignored, rejected, and despised. The work began enveloped in ideas of limits and range, an exploration of what this, my new body, is capable of and honoring those capacities.

The form of the dance for camera actually served as an aid in my exploration of the content of the piece. The repetition required by the filming process allowed me to offer more concentrated focus to moments that in live performance may have slipped by. The exhaustion I experienced in having to repeat single movements again and again, taught me not only genuinely what those movements are, but how I authentically perform them, when I am not fulfilling someone else’s paradigm. The time needed for filming, was time I was allowed to spend with my spine, to become better acquainted with my body, with myself.

A structured improvisation for the work serves as a wonderful example of this required attention and discovery through repetition. In terms of structure, the improvisation was quite simple. My feet remained planted in a wide second position, all displacement in space had to find its origin and completion somehow in my back. After two minutes of moving I assumed I had exhausted every possibility. Lateral flexion, rotation, frontal flexion and extension, I had attempted each. The metal had done what it

could. However, the camera still played behind me, blinking as if expectantly at my spine. I had no choice but to continue moving, to keep myself interested, to keep my back breathing, exploring, speaking.

I started moving again, using the same movement. With each repetition I sent my mind through a layer of skin, dodging a pushing muscle, slicing through bone. In minute seven I began to inhabit myself. I began to know what my body could do, what it was. I crawled my imaginative, internal eyes up my vertebrae as they stacked and tumbled. I watched the metal dive and spin. This became the most interesting and empowering section of the work for me. I saw a cyborg body become articulate, and I began to live in that body again. In the 15 minutes I spent within myself I realized some of the limits there are to my physicality. However, I also learned to honor the capabilities, the uniqueness and the potential in my spine. I was able to entertain the possibility that the addenda I carry of hooks and rods could in ways make me more eloquent. I honored by merely observing without judgment. Sometimes just watching, just being seen, is a gift.

At a TED Talks conference in 2009 Aimee Mullins speaks to this need for witnessing, this need for cyborg bodies to be seen as beautiful and capable.

Poetry matters. Poetry is what elevates the banal and neglected object to a realm of art. It can transform the thing that might have made people fearful into something that invites them to look and to look a little longer and maybe even to understand. (Mullins, 2009)

As I began work on this thesis, I realized that I have lived in fear of my spine. Seemingly hybrid and monstrous, I feared to look at my own body to consider that it may have power and beauty unimaginable in my former self. Witnessing my spine move, feeling my body spiral, arc, and flex has been a process of allowing myself to physicalize poetry and to embody metaphor. Cyborg bodies are poetic bodies, full of meaning; they

are not meat and metal crudely assembled to serve functionality as the supreme value. Form and aesthetics deeply matter. When we consider what our bodies might be in terms of aesthetics, when we consider that for simple reasons of beauty we can add to our skin, alter our core, remold our being, we come to our humanity. We don't just serve purposes. We live lives, haunted, loved and empowered. Mullins expressed this sentiment as she continued in her presentation: "By combining cutting edge technology, bionics, robotics with the age old poetry we are moving closer to understanding our collective humanity" (Mullins, 2009). We create because we are human. We have a need to engage with art.

Cyborg bodies are enticing because they at once enact difference and familiarity.

The edges of the known and the unknown bleed in cybernation.

The cyborg and its many manifestations in cultural expression demonstrate models of identity that do not adhere to static nation-state, gender, race, or class. [They] speak to those unauthorized aberrations and unlikely cross-pollinations that straddle clear categories, especially within rigid systems of definition. (Murray, 2009, p. 39)

Defying the categories that outside perceptions would attempt to append to the cyborg; he/she offers a way to live in the space between these labels. The addenda acquired by cybernated bodies carry enough of the exotic, strange, or other to be a source of interest and allure. Simultaneously, the cyborg lives out humanity in a way that is strangely familiar and recognizable. While my back is unique, the technology in it a marvel, my experience is quite similar to that of many other dancers. All movers have limitations or disabilities with which they engage. The response to and incorporation of perceived weaknesses into an ever fluid sense of self is the passage each human takes. It is the hero's journey we each undertake, filled with shifts, loss, and enlightenment that

we recognize in different bodies. We desire to see ourselves in poetry. We are enticed by the mysterious and the known.

In the final product of “Embodied Engineering” I overlaid a close up of my face watching the movement unfold. It didn’t serve the work in the way I expected. I intended to draw closer to myself through editing, but there was a distance between the gaze of my external eyes watching my face, watching the moving body below it. There were too many layers between my watching eyes, seeing my eyes watch my moving body. All these frames of eyes disconnected me as a viewer from the moving body.

The film became about the divisions, the cut up, and the moments before I became reassembled. The film was more about the aberrations and the uncanny than the familiar and enticing. Often products take paths the theory never intended. However, even edited down to fragments, irrational and alarming, there was something very embodied in the movement. I’ve learned to move over the years, and that can’t be cut out of aesthetic images of my body. Even in the brief seconds that flashed randomly in time; I saw the dancing cyborg I had embodied. Even just in this little observation, this little hint of the filming experience, a body that is somehow put together by technology, despite technology cutting it up, I think the research was revealed. I have learned more often than not to be whole and alive, and this humanity reads from the very smallest shifting of my core to the grandest flight and fall.

In this chapter I have explored my personal journey as a cyborg, and how this process served in the creation of a solo film “Embodied Engineering.” The process of filming and editing this piece together brought me to a place where I could encounter myself as a fluid, dynamic, and articulate being. Reenvisioning my body through cyborg

discourse as a creature of addenda, a being human+, gave me the opportunity to experience my body as articulate and beautiful while imagining greater possibilities for myself in the world. I believe this same empowerment can be found in cyborg narratives similar to mine as we learn to live beyond the categories assigned to us by outsiders.

When embraced and valued, the personal, embodied experience of humans with addenda can allow them to create unique and pliable identities and act from a place of strength and opportunity. While marked by difference, cyborg bodies also have the potential to be enticing, drawing others into a sensual engagement with alternate forms of embodiment. Cyborgs can have the ability to invite other human beings into their lived experience, potentially opening up the possibility for looking, seeing and the capacity for generating understanding.

## CHAPTER 2

### REDEFINING DISABILITY THROUGH CYBERNATED ADDENDA

Waiting in the black, my fingers raveled up in her fist, Elizabeth and I listened to the squeaks and groans of her wheelchair. We've heard them often; they accompany us as we walk. The creaks of metal and murmurs of hydraulics are a third voice in our every conversation. As the lights began to fade up on stage, the three of us exhale, a hopeful sigh, and dancer, sister and machine begin our dance. "Metal Souls," the multimedia duet between my younger sister Elizabeth and I, feels simply like a continuation of the dances we've been negotiating for our entire lives. The stage is not built for wheelchairs, just like our world is not constructed for the alternately-abled. However, the construction of the world does not need to dictate how we choose to create our own bodies. By participating in "Metal Souls," Elizabeth and I were able to insert visibly cybernated bodies into unexpected spaces, calling into question the very construction of those spaces and the assumptions they hold.

Elizabeth is more than a handicapped child. She is not defined by her disability. She is more than an aberration from expected human function.

The construction of one marker of difference – be it sex, race or sexual orientation – creates a form of political essentialism in which only one difference is held to make a difference at any time... The difficulty with this perspective of one binary that overrides all others is that, even as it assigns political capital to the binary it emphasizes, it detracts from the

meaningful differences that may arise from other binaries that become deemphasized in this construction. (Quinlan, 2009, p. 53)

I have witnessed this played out as able-bodied humans interact with my alternately-abled sister. As Quinlan and Bates put it “all other personal characteristics are effaced in favor of a nearly exclusive focus on the individual’s disability” (p. 49). People unfamiliar with Elizabeth are often unable to conceive of the fact that she has a unique personality, temperament, and allure. She sits in a wheelchair, but this is not the single defining characteristic of her reality. Elizabeth is not a conglomeration of binaries. She is a person, capable of being a woman, a sister, an alternately-abled dancer, and a hero in a way totally unique from other combinations of these dualities. The very nature of a cyborg is to resist these binaries, to slip from category to category with chameleon ease. Elizabeth has a startling range of possibilities and opportunities when she is encountered beyond this one marker, when she is allowed to be a human being. I see my sister in terms of Carrie Sandahl’s statement: “To think of disability not as a physical condition, but as a way of interacting with a world that is frequently inhospitable is to think of disability in performative terms-as something one does rather than something one is” (Sandahl, 2008, p. 10). Elizabeth is not defined only by her disability. She is human and practices her reality uniquely, performing aspects of disability.

Only when we start engaging with multiple signs of difference in unique individuals can we be seduced by the dynamics of alternate experiences of embodiment and humanity. Elizabeth has a draw on people that I will never know or understand. She brings people to her and causes them to be enamored. This is in part because she exists in so many unique possibilities. She is capable of being both a child and an adult, at once

innocently naïve and all too knowing. She is at times both kind and crucifying, taking apart people's pretensions but reassembling them into new human beings.

I've told Elizabeth's story many times, constructing eloquent frames around her haunting face to mirror the metal casing enwrapping her feet, legs, and spine. I've retold her story as a functional summary because you can't explain in a brief meeting what it is like to be held hostage in her gaze, to know the rhythm of her breathing and understand that she is speaking with exhales, to hear pure delight in her laughter at your presence in her field of view. You can't explain the lifetime of complexity you've come to read in her expressions to a human being who has already drawn their borders: disabled, sweet, ineloquent.

I want to know how Elizabeth tells her story.

My work with Elizabeth began as a dance for camera. Since I could not plan or program her actions and reactions, the piece was built on a series of improvisational structures. We improvised with each structure for fifteen minutes or so, giving me a wealth of material to select from when editing together a final product. The temporal, tangible experience of dancing and interacting with Elizabeth was captivating as a performer and a director. Her subtle grace, wit and personality were highly emotionally compelling. A few of these moments translated to film, but the rest of her eloquence seemed lost in the unsteadiness of the camera, the distance in time and space between performers and audience, even just in the absence of her very visceral, immediate presence.

I re-shot the work, believing I could perhaps go right to the moments that were powerful, to really capture these flashes the way I saw them standing next to her.

Elizabeth had a bad day. She was miserable. Try as I might, I couldn't make the moments happen as they had and as I wanted. I couldn't make Elizabeth tell the story she had told before; the one I was now trying to tell. I attempted to make the footage work, I edited (though perhaps bludgeoned would be a more accurate description), cut, recut, and realized I could not with any integrity use the new footage. The frames I was nailing down over Elizabeth were both dishonest and ineloquent. From the ashes of that shoot rose "Metal Souls", a live work; it was the work that needed to be made.

Much of the editing process was spent struggling with how to show the captivating presence of Elizabeth in person, when she was removed in time and space. Her ephemeral presence on stage was the answer. The idea was breath taking and so loaded with questions I wondered if it would ever be feasible. What did it mean to have this body on stage, a performer just as curious about the audience as they are about her? What would it be like to give Elizabeth a chance to really be seen with a gaze that is not pitying or sideways, but curious and perhaps even envious. Does this technology mean the stage is off limits? Although it is just one larger frame, would the stage be empty enough, barren of enough of my own effort for her to speak, to tell her own story? Would the simplicity be boring? Would we even be dancing anymore?

The journey to a final piece on stage was as complicated and full of edits as the filming process had been. I had to encounter each question, I had to consider it in the structure of the work, and I had to change either the question or the construct. The final work utilized some of the same improvised structures from the filming process as well as a few moments of footage projected onto a screen behind us.

The first conception of “Metal Souls” was actually a trio involving Elizabeth and me, and a moving, live-feed camera orbiting around us. The purpose of the live feed was to bring intimate moments closer to the audience, and to allow them a glimpse at the subtle grace with which Elizabeth moves. From the beginning there was something very uncomfortable about the camera’s presence. Not only was it impractical with cords and the unsteadiness of a handheld camera, but also it seemed intrusive and perhaps even inhumane. I didn’t want to put Elizabeth on display, nor have a camera stalking us in personal moments. Rather than succumb to functionality, I desired to bring poetics and aesthetics into our hybrid performance. I also wanted the projection to serve a more transcendent purpose than mere capture and display.

After several failed attempts with live feed, we scrapped it. If cybernation is really about choices and metaphor, then I needed to use metaphoric footage: the beautiful moments from our filming process that had so captivated me. Using pre-recorded footage allowed the work to have spaces in it, space for breath, reflection, and choice making. It also offered the audience a stage with depth, allowing the eye to transport from past to present, bodies to film, and live laughter to haunting sounds from the recording. The footage we used went through several modifications as well, but from the moment it was projected on screen it felt right. Elizabeth and I were able to be totally in the moment, free from cords and lenses, while also having space to be still and quiet. Space was opened for metaphor.

I had initially wanted to create a dance for camera in part because it offered an opportunity for intermingling form and content. Technology used in the form would mirror the technological components of Elizabeth’s reality. I wanted the work to be

cybernetic, a hybrid. This occurred only after the piece found its way to the stage. By incorporating film with our live bodies we achieved a truer sense of cyborg performance: available, fleshy bodies meeting technology in new performance opportunities. Within “Metal Souls” I found form and content bleeding in the exhilarating and enchanting way I desired, apart from heavy hands and scalpels dictating what the work ought to be. Soraya Murray refers to this hybrid form as “cybernated aesthetics” and says that it is “suggestive of multiple flows between art object/experience and artist/agent, while also evoking technology’s interpenetration into human experience” (Murray, 2008, p. 40). In our “cybernated aesthetics” the art object was also a visceral live experience wherein the creators and creation bled roles. Our duet was not only an interaction between people, but also a dance across time as prerecorded film met live moments. The work was made to encounter binaries and find play between them.

To my perception the final work we created did not present Elizabeth as a human being to be pitied. She lives a rich, capable, and unique existence not despite, but in part because of the addenda she carries. “The wheels of chairs, which put some of us into space in interesting ways, need to become unstuck from narratives and images of tragedy and loss. It is up to us to reinvent the visceral meanings of all addenda, and make them tools in the reinvention of our social spaces” (Kuppers, 2006, p. 179). One way to start unsticking the wheels is to allow them liberty to roll on stage. I am growing increasingly fascinated in why we make bodies for the stage instead of the stage for bodies. In an architecture of ramps, curves, cables and textures, we have the opportunity to experience a magnificent reversal. Traditional dancers could find themselves feeling disabled in an environment built for crutches, wheels, and skis, while alternately-abled dancers have the

opportunity to perform with new eloquence, grace and humanity. Bringing alternately-abled cyborg bodies onto the stage is a first step in creating new dances of empowerment and in re-opening the discussion about how spaces and bodies should look.

The cyborg body, herein, has the opportunity to offer alternate opportunities to others and engage in resistance against traditional constructs.

The performance of the cyborg metaphor... enables us to expose, examine, and critique the ways in which the body is implicated and bound up in our understandings of art, technology, and identity. The performance of this metaphor within the context of art creates a conceptual space within which we can imagine and perform an embodied pedagogy of resistance. (Garofan & Gaudelius, 2001, p.333)

In resistance reside possibilities for change. There is not one normal body, one ideal human form that can accurately represent the vastness of our experiences in life and on the stage. Having alternate bodies on stage makes visible the arbitrary nature of the classical body construct. As a cyborg body with unique addenda, Elizabeth represents alternate possible bodies and realities in theatrical constructs. Due to cerebral palsy, she does not have refined, articulate skills of performance, nor does she “act” on stage. She simply is who she is within her body in the given time of the work. The stage does not serve as a canvas for presenting a version of herself, a picture of what has been asked of her. Her actions and reactions are genuine, in the moment, and unplanned. This authenticity also means that she is not engaged in a process of hiding or masking what may be seen as physical or performance deficiencies. From my experience working with her as well as discussing audience reactions to the piece, this lack of concealment did not eliminate the “magic” from the work. Elizabeth’s subtle and immediate way of being in the world carries its own allure. Based on my understanding of “Metal Souls,” interjecting unexpected bodies onto the stage space does not somehow diminish the

“artistic” or “enchanted” nature of the theatrical experience. It may serve the exact opposite purpose: offering a certain authenticity and personal allure as the means of captivation.

As a more traditionally embodied dancer with an understanding of classical theatrical expectations, I was painfully aware of my need to perform when sharing the space with Elizabeth. Letting go of my performance habit and trying to be as authentic and spontaneous as Elizabeth on stage was an awesome challenge. I found myself envying her. Such honesty is a rare gift particularly on stage. As we sat alone together, listening to the fading strings of a cello, Elizabeth kept gazing up at the lights. With eyes filled with wonder her mouth fell open as she craned her neck to see the reds, whites, and golds dancing above us. I wanted her to look out at the audience. That’s what performers do. The lights were far more astounding to her than the black opening up before us.

It is this wonder that I keep returning to as one of the unique benefits of having a cyborg body. If we experience our body as something uniquely different each day, as a form continually acquiring addenda, we have the opportunity to experience the world with freshly awakened wonder. As addenda change the human body, they also alter the environment that body inhabits and the relationships in which it engages. While the imbedding of technology into her body has changed the landscape of her physical frame, Elizabeth’s emotional and social landscapes were also altered by the new addenda under her skin. Her cyborg body allows her to experience the world as something fresh and filled with potential. Marveling is a lost art. Addenda allow us to reclaim our wonder and in this act to reclaim our questioning (Kuppers, 2004, p. 121).

In multiple, complex differences we find organizations similar enough to our own to be enticing. Though Elizabeth has a cyborg body of marked difference, I believe her unique way of being in the world draws others to empathize with her and to build unique relationships. When human beings begin to perceive others as constructed of multiple differences rather than one defining feature, they are able to recognize the complex humanity being negotiated and reorganized within each person. As categories lose their meaning, individual creation and possibility become powerful. The complexities of other humans woo us toward an opportunity for understanding.

In this chapter I have explored how my sister, Elizabeth, negotiates the world in a unique cyborg body and particularly how outsiders perceive and relate to her. By discussing the creative process, struggles, and final product of the multimedia work we created “Metal Souls” I have brought to light how problematic the cyborg body can be on stage, but also how cyborgs can create beautiful and unique artistic experiences for themselves and audiences. By making traditional constructions visible, cyborgs offer alternatives to those constructions and open up new potential for works of empowerment. I believe as a term “disability” limits the potential within human beings and perpetuates the idea that we can be categorized by a single marker of difference or a single binary. Only when we engage with other human beings as complex, multifaceted creatures capable of alternate experiences outside our realm of understanding, can we begin to look without pity and see others as capable of both beauty and possibility. This shifting perspective leaves us available to be seduced by other ways of being in the world. My work with Elizabeth allowed me to relinquish traditional ideas and assumptions I have been holding about her capabilities and the potential in our relationship as well as

revealing my own proclivity toward performing as opposed to her authentic presence. We have acquired different addenda and embody diverse cyborg realities. I continually find myself envious of the wonder she experiences on a daily basis, and the captivating quality with which she draws others into her experience and invites them to consider a new perspective.

## CHAPTER 3

### THE CYBORG AS HUMAN AND RELATIONAL

Thus far I have examined the possibilities available for bodies marked by difference, with very visible or surgically implanted addenda. In this chapter I will further discuss the possibility that we are all already cyborgs, that we are all marked in some way by technology. I will examine the reluctance some people have toward viewing themselves in this fashion, and consider what cyborg technology as viewed through the definition of human+ might mean for humanity. By discussing my stage work “Human Reassembled,” I will explore how “normal” or “able” bodies can benefit from embracing the theory of addenda and potentially have new opportunities and new ways of being in the world.

The creation of “Human Reassembled” was a process far different from the other two works in my creative research. In previous choreography I had bodies visibly marked by difference, baring their addenda to the audience. The five dancers cast in “Human Reassembled” were all able-bodied, and as highly trained movers, perhaps even extra-able-bodied. None of them have particular visible markers of difference. I wasn’t interested in having humans impersonate the imagined actions and reactions of a fictional cyborg character. I wanted to see real people living in their own skins and experiencing their bodies with freshly awakened wonder. Somehow I had to convince healthy,

“normal,” metal-less dancers that they were cyborgs, and that this could be an amazing gift for them.

I asked my dancers to improvise with the idea of addenda. Curious as to how they would interpret this task, I had them create short solos from their study. In watching them move their technological additions and in watching them reembody their “disabilities,” I felt myself drawn to their stories. I saw my journey reawakened in their narratives.

Slithering across the floor, one dancer stalked her own right fist. Fangs heavy in her open mouth she ingested the coil of fingers. The image was not so finite however. There was a sense that in as much as she was consuming, the fist was just as much willing itself into her mouth. I empathized with the sense of being caught between: was she taking something in or was something forcing its way down her throat? Do we take on technologies or are they forced on us? Should this alter our response to them? During my surgery I had wrestled with this question, and I saw it replayed several times in the dancers’ improvisations.

In each solo there was displayed a sense of loss, weakness, or passivity to the technology they were remembering and exploring. Fists knocked their bodies to the floor. Dancers slithered across the space like wounded animals, dragging lifeless body parts behind, or staring at heavy limbs hanging in space, a cross-eyed marionette played on someone else’s strings. Fingers curled into claws, caging hollow and haunted faces. These were not the empowering structures I had investigated in my solo or in Elizabeth’s and my duet. The able-bodied dancers saw addenda as something they were forced into in order to “fix” or “cure” some injury or ailment. The addenda they had to take on were more cage-like and confining than the physical bars around my spine. Cyborg addenda

were taken on only to return a deficient body to a “normal” state. There was no exploration of how one could “live with” their addenda or actually experience fresh opportunities in a new, unique body. Herein I discovered the first reluctance of human beings to classify themselves as cyborgs: technology is designed to fix deficiencies, and humans do not want to be perceived as sick or in need.

A significant component in the increasing fear concerning cyborg technology and hybrid humans is located in the therapy/enhancement debate over technological augmentation. Michael Sandel presents the nature of this debate, but fails to offer sufficient definitions of “health,” “normal” and “enhancement.” He says “The moral quandary arises when people use therapy not to cure a disease but to reach beyond health, to enhance their physical or cognitive capacities, to lift themselves above the norm” (Sandel, 2004, p. 51). I am curious as to how Sandel defines the “norm.” Also using phrases such as “the natural” and “giftedness,” Sandel places the natural, what we are born with, as the supreme good. I will broach this moral issue of technology later. The idea of what is normal is an eminently slippery concept, sliding between ranges within societal periods as well as individual lives. If I use only my natural abilities and ignore technological enhancements, I would walk everywhere I go. Cars would be out of the question. They weren’t normal one hundred years ago, and I wasn’t born with a set of keys. Technology serves one purpose in this model: to “cure” “disease.” However, I have seen that there is a vast range of possibilities for technology and its use in and for the body beyond this disempowering, confining medical model.

Beyond questions of defining normality, which make any debate over health/enhancement one of personal preference instead of fact, this view also falters by

privileging function as the only meaningful value in the discussion. The fear is that humans receiving enhancement would be super-functional beyond societal norms. McGee and Maguire even argue that technology “promises to change the capacities of humans to such a degree that they become fundamentally different” (McGee & Maguire, 2007, p. 293). This argument totally neglects the myriad of augmentation possibilities in the realm of the aesthetic. Perhaps technology has the potential to change humanity: to make it more beautiful, empathetic, and creative. If creativity and empathy are markers of humanity, as I argue they are, then we cannot solely consider the function of addenda. We make choices with the purpose of enhancing beauty, of being seen, looked at and admired. As long as the conversation focuses entirely on the utility of enhancements and the dangers this utility presents, it will never shift to empowerment, to bodies making creative, artistic choices in their own spaces for the sake of more deeply embodied experience.

I broached this discussion with my dancers as they shared with me their individual addenda. One dancer had considered pointe shoes as her addenda, something foreign added to her body. This form of enhancement is far from functional in daily life, and serves only as an aesthetic augmentation. We considered that most every addendum we discussed had an aesthetic component. The dancers moved these addenda and re-embodied their experience of being human+ with the idea of aesthetic potential in their addenda and experience. There was some change in their movement, but the medical model of enhancement is deeply embedded in popular consciousness. Our self-esteem is enwrapped in an idea of autonomy and individual health. If we incorporate technology

into our bodies, there is an accompanying fear that we as individuals are somehow lacking and need to make up ground with enhancement.

Further unwillingness to accept a new cybernetic definition of existence stems from the fear that incorporating machinery into our selves will somehow erase or nullify our humanity. This concern is built on the same kind of disempowering categorization that relegates persons in wheelchairs to a single binary of disability. This hypothesis emphasizes that we are either human or machine. In Quinlan and Bates research this binary is portrayed as functioning on a scale: “As [the cyborg] becomes a more ‘normal’ woman, she becomes less a cyborg... as she becomes more a cyborg, she becomes less of a woman” (Quinlan & Bates, 2009, p. 55). The two cannot exist in the same space. When the balance is upset or a finite line is crossed the once “good” human being becomes a machine, crossing a moral line into resistance, corruption and blasphemy. Human characteristics are lost in machine identity. The connection between morality and machinery in the body is a narrative retold countless times in popular culture. It is as if when metal is inserted into the body, something essentially human is simultaneously extracted.

The moral tie between embodied technology and an ethical, human sense of self may simply be tied to a human fear of the other and the unknown. Cyborg bodies, which cross boundaries and bleed binaries, do not fit in one quantifiable schema. Cyborg bodies are foreign, other, unknown; bodies enmeshed in the uncanny. However, if we can reorient our minds to conceive of ourselves as cyborgs, we stand a chance of developing new ranges of understanding and building new lines of communication between individuals. The more we become aware of the complexities and idiosyncrasies in our

own lived experience, the more we can begin to recognize similar levels of complexity in others. As we learn to acknowledge our personal dependence upon technology for a rich and socially meaningful life, perhaps this will encourage broader understanding and acceptance of our unique cyborg existences in their many manifestations.

In an attempt to move away from a view of addenda as disempowering, solely medically functional, or even morally suspect with my dancers, I next broached the idea of all humans already being cyborgs because our lives are enmeshed with technology. There are many individuals who feel their smart phone is intrinsically linked to their daily practice of living in the world. The smart phone in a sense becomes an addendum, altering the user's bodily experience of reality. A primary purpose of bodily addenda is to alter our manner of being in the world and with other human beings. These smart phone, tablet, laptop cyborg beings build multilayered, complex relationships through physical and cyber realities, transgressing the dividing line between cyberspace and physical/social reality. We are not viewed as less human for inhabiting these many social spheres, but rather "plugged in" humans seem to be more fully able to accomplish multiple discourses of the self in relationships.

In this way human beings as cyborgs again have the opportunity to have profound encounters with their humanity, instead of being limited by the technological addenda incorporated into their physicality. One primary goal of these types of enhancements is increased communication. In choreography this manifested in a series of duets in the final piece, wherein the dancers intermeshed their solos built from exploring their addenda. The matching of lines, limbs and bodies came from, and became a symbol for, the similarities we encounter in our experiences of addenda. These relationships are not

without complexity, discord and misunderstanding. However, as we encountered in movement practice, discord reassembled can offer new opportunities for mutual support, deeper understanding and new pathways for communication. Redirecting difference into support was most visibly and humanly embodied in a duet, which unfolded in the middle of the work.

The reassembled human turns her head to hear the lulling drone of circuitry firing below her ears, listens for the reconstructed limbs' and neural pathways' gentle hum and surge. She watches her own life crack and fly around her in wonder. Her palms she examines closely with unevenly blinking eyes until her hand flutters and the hydraulics take over. Succumbing to exhaustion her body rights itself, breathless for wonder, and she walks a slow journey upstage. The air fizzles, as a palm she has not before encountered hovers at her shoulder, finds her skin, and teaches her to fly. The human reassembled, reenvisioned with cyborg potential and hopeful addenda, is a relational creature.

This duet explored how cyborgs touch, feel, and listen to one another despite very different bodily constructions. A hand pushing distance between the two movers merely rotates a few degrees to become a ledge of support for buckling legs. A lonely slice into space is caught in an open palm, allowing the two bodies to counter balance, giving each a point of grounding in the black. I became a dancer because sometimes movement can speak with eloquence before our minds wrap language around knowledge. Sometimes the work knows before we do. The body thinks quickly. In this strange duet I saw the kind of relationship and humanity truly embodying our addenda can generate. Taking technology

into ourselves is not dehumanizing. It can build empathy and paths to understanding unimagined except by the cyborg body.

Great opportunities are available to us as individuals when we render ourselves to the possibility that we might already be cyborgs. This is not a discourse or a construction of self to be feared. In declaring ourselves to be cyborgs we claim the complexity of our humanity, the wonder we experience, and the hope that we might be able to communicate eloquently and beyond banal categorization with similarly unique and fascinating beings. Envisioning ourselves as cyborgs does not make us less human; it makes us more. My experience, my sister's story, and the work I saw created in and through my dancers' bodies has further revealed to me the empowerment that can come from the opportunity to create ourselves and our realities with addenda. The medical model of addenda, does not serve the reality of many cyborg's lived experience. Cyborgs do not lose some part of their humanity, they do not lose their personal consciousness, artistic voice, or ethical understanding merely because they are being made or have been made new in some way. As we learn to recognize the technologies at play within ourselves, we have the potential to see beyond markers of difference, to see individuals in their complexity. In this understanding we might have the potential for new avenues of communication, new definitions of ability, and new more subtle ways of living in the world with other beings.

## CONCLUSION

The previous comments relating to cyborg technology are all dependant on re-envisioning the cyborg body as a person who is human+. The cyborg is a being that melds a human existence with technological innovation for reasons that are simultaneously functional, aesthetic, and social. The cyborg is a creature of addenda, a creature taking on technology, adding the foreign and the other into the self.

We are infinitely complex creatures. Outsiders often try to squeeze individuals into preconstructed binaries and dualities, reducing unique human beings to single markers of difference. The cyborg body allows individuals to resist categorization and slip between binaries, bleeding the boundaries of labels to open up fresh possibilities. Reclaiming our complexity, uniqueness, and abilities is one way that cyborg discourses allow us to delve more deeply into our humanity.

Reenvisioning myself in terms of cyborg addenda enabled me to experience my body as something capable and beautiful. In the creative process of my film work “Embodied Engineering” I explored the possibilities for subtlety and expressive articulation in my spine after undergoing scoliosis surgery. While attempting to release the years of fear and locked down force I had constructed into my body, I found new opportunities for creativity, empathy, and personal choice. I believe that similar cyborg narratives can occur in other bodies marked by surgery, prosthesis, or other visible

differences. Our bodies exist as the spaces in which we can reconstruct our identities and our opportunities.

The redefinition of a cyborg as a creature of addenda encourages a new definition of “disability” as well. Alternate-ability more accurately portrays the reality of my younger sister, who cannot walk or talk, but ambulates and articulates herself with dynamic grace. Elizabeth is unique and complex beyond the basic markers of difference with which society tries to categorize her. By engaging in a multimedia work “Metal Souls” we attempted to make visible the inadequate binaries framing her as well as the construct of the stage as a place for “normally-abled” movers. By interjecting themselves into the world of performance and re-making the proscenium, cyborg dancers can call into question not only theatrical structures, which do not serve dancers’ vastly unique and complex experiences, but also the perceptions and expectations which have allowed only certain bodies on stage.

Though I began my discussion of cybernetics and addenda looking at visibly cyborg bodies, I believe that we are all already cyborgs. From our reliance on smart phones to contact lenses, to the wheels that propel us into and around life, we breathe lives that are enmeshed in technology. This melding of technology and our bodies does not speak to a potential doomsday for our humanity or our morality. By increasing communication, breaking down borders, and revealing our deep complexities, technology serves to draw us deeper into our humanity. In intricate duets and improvised personal narratives, “Human Reassembled” explored the possibility that we as cyborgs can become increasingly empathetic and relational beings.

My cursory purpose in initiating this research was to find healing for myself and new possibilities for my sister in a world built on binaries. However, the process has taken me much beyond myself, to reveal how “normal,” able bodies can likewise find hope, humanity, and soulful connections in the potential of cyborg understandings. As we take on addenda we remake ourselves into empowered creatures full of promise. These new possibilities and the wonder they bring to existence can serve as an invitation drawing others into unique forms of embodiment. Far from the gruesome “meat and metal” view of the cyborg, this definition encompasses bodies and technology into poetry, generating powerful metaphors for existence and a metaphor for the ultimate mystery of being human.

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