Fashion, Technology and the Sonic Wander: The
Echo Coat Series

Thesis Statement

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THE ECHO COAT SERIES

The Echo Coat Series isan exploration of the contemporary relationship of
sound, women and public spaces. Inspired by the tradition of music, modernistic
movements within sound, and the current ubiquity of individualized soundtracks,
this series of historically aesthetic, technological, sound-driven garments creates
a female-centered narrative of embodied wandering. The current environments
of retail, architecture, and transit are transformed by deflections of consumerist
language, real time echoes of boot heels, and the rapture of durative tones,
impacting the nature of public sonic space in new ways.

My project includes three coats that are designed in modernistic styles. They
celebrate the point in history that sound began to open up conceptually and noise
was incorporated into the classical music tradition. The coats are entitled
Andante Coat, *Staccato Coat* and *Largo Coat.* Each coat has a character
associated with them that have been further developed in a video work
accompanying their display. The technology includes using RJDJ[1], a platform for
reactive music for the iPod Touch and iPhone[2], using re-configurable 'scenes' to
create real-time sounds. Speakers embedded on the outside of the coats project
the sounds to claim sonic space, celebrating sound embodiment through the

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[1] http://rjdj.me/
[2] http://www.apple.com/ipodtouch/

body carrier. The names are based in the classical tradition of music; Andante and Largo connoting tempo in beats per minute (Andante: at walking pace, 76 to 108 bpm; Largo: the slowest tempo, 40 to 60 bpm), and Staccato describing a stiff attack of a note. The coats celebrate noise, experiments with randomized language, and minimal composition, in an attempt to celebrate public movement.

Staccato Coat:

Thesis Exhibition

Staccato Coat, Andante Coat, Largo Coat: Thesis Exhibition

Andante Coat, Largo Coat: Thesis Exhibition

SOUND AND RJDJ

Within RJDJ, specific 'scenes' use the open-source PD Gem programming environment to act as a framework into the RJDJ platform. The essence of the functionality uses a headset equipped with a microphone. Once the scene is executed, real-time sound from the immediate environment goes into the microphone and subsequently into the iPod. The sound is then modulated and shifted per the specific programming instructions of the 'scene.' For instance, one of the standard scenes called 'Echelon' , in essence, takes the sound of the wearer's voice through the microphone and adjusts the duration and the frequency of the pitch. It can also sense more percussive beats and samples those sounds into a beat per minute structure.

This application has sparked a bit of a revolution in the music world. The term 'Reactive Music' has been applied to its congregation of user groups. Major techno artists like Kids on DSP[3] are using the platform and its algorithmic environment, to integrate their sounds with the flow of user movement. One of the RJDJ creators, Gunther Geitner, suggests that in some ways it is following in the tradition of improvisation, but leaving the score more open.

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[3] http://more.rjdj.me/kidsondsp/

4

> It's really a very open world, and the good thing about using Pd in there
> is that basically you can do everything. It's really so open that we don't
> know what's coming out of it.[4]

He also discusses the freedom that it is lending to the iPod object itself.

> [Then] people started to realize they make music with objects.
> An instrument, it's an object. But with digital music, music in a
> way became totally objectless. Look at the iPhone – in the end,
> it's so miniaturized. RjDj is really bringing it back to the object.
> You know how this glass sounds [if you strike it], but with RjDj it sounds
> different. People begin to experience objects in a different way.[5]

Much like the break of RJDJ from the controlled iPod experience, the Modernist
and avant-garde sound movements broke with the classic traditions of music.
Most famously, Luigi Russolo wrote a treatise in relation to the Italian Futurist
movement entitled the *Art of Noises*. The progress of the new industrial 20th
century granted us an extensive and remarkable opportunity to expand the
timbre of music. His ideas were the instigator of the musique concrete
movement that pushed to include all prevalent 'noise' credibly into history.
Noises like typewriters or percussion on steel were also celebrated by the
Dadaists like Richard Heulsenback. Douglas Kahn describes these ideas of
revolt in his book, *Noise, Water, Meat.*

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[4] http://createdigitalmusic.com/2008/10/10/exclusive-rjdj-interview-interactive-music-listening-everywhere-you-go/#more-4244
[5] http://createdigitalmusic.com/2008/10/10/exclusive-rjdj-interview-interactive-music-listening-everywhere-you-go/#more-4244

> True noise has performed admirably. Where better to set the ear loose to
> hear and fell unexpected licks the on the complexity and unpredictability
> call noise? What better way to test authoritarian tolerance than with
> raucous rage or arresting ridicule, and how better to bring attention to
> things without bringing things to attention? Where better to lose wayward
> thoughts, attempt to lose thought altogether (if only to give it a rest), and
> find thoughts where none many have existed?[6]

As the twentieth century has moved on, John Cage incorporates subtleties of
outdoor music, toy pianos and even taped music. His legendary work, the1952
composition, *4'33"*, contained three movements of only silence.

In the book *Audio Culture*, Iain Chambers moves towards the ideas of the iPod
and RJDJ in his chapter the *Aural Walk.*'[7] The technological development of the
'Walkman' excites him. Though initially criticized as a developing isolationistic
activity, he argues that private, portable stereos provide the listening subject with
a tool for mediating his or her public experience, transforming it from a passive
one into an active one. The Walkman has now logically evolved into the
ubiquitous iPod. It is an entirely new way of receiving music that addresses
public mobility, technological trends in audio and even 'controlled noise.'

> The iPod…offers the user unfettered auditory freedom of movement from
> home to street to automobile to office. Time is woven into a seamless
> web of controlled sound and space…[8].

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[6] Kahn 2001, 45
[7] Chambers 2004, 98
[8] Jones 2005, 156

6

The *Echo Coats* develop these ideas in the context of wearable audio garments. The use the real-time elements activate an experience public spaces. By embedding the speakers on the coats themselves, the project suggests a new balance of the aforementionedconcepts. Externalizing sounds but keeping it close to the user further embodies the sound experiences and further activates it. The user and coat itself become carriers of the sound and subsequently objects worth expansion.

FASHION AND WEARABLE TECHNOLOGIES

The notion of the garment itself has its own history as carrier of physical, cultural

representation. Fashion has conventionally been known as a guider of aesthetic

but also a visual control of the body.

> Through the artifice of apparel, the less than perfect can camouflage
> perceived deficiencies and in some instances project an appeal beyond
> those gifted with characteristics accepted as idea in their culture and
> time. [9]

From 19th Century Corsets to the Chinese binding of feet, fashion shields and

celebrates and its direct relation to the body.

The most exciting movements in recent history have broken with the tradition of

fashion. A good example of this is Coco Chanel and her legendary creation of

more utilitarian, masculinized garments, impacting the fashion world significantly.

> Coco Chanel dismissed the elaborate constructions proposed for women
> by her fellow male designers with the quip, "A garment must be
> logical…Men were not meant to dress women." [10]

Designer Elisa Schiaparelli worked with artist like Salvador Dali to Jean Cocteau

between 1937 and 1940. She created a style that transcended conventional

notions of presentation and even reality. "In a pulsatingly exciting and inventive

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[9] Koda 2001, 9
[10] Koda 2001, 12

8

career, Schiap, as she was called, did not so much revolutionize fashion as shatter its very foundations."[11]. Her *Lobster Dress* and *Tears Dress* were characterizations of concepts Dali had been exploring in his own work, were part of the main inspiration that informed *The Echo Coats Series*.

The Lobster Dress: Elsa Schiaparelli

The Skeleton Dress: Elsa Schiaparelli

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[11] Baudot 1999, 88

As the tradition of personal expression within fashion continues to grow, it is

likely to converge with another influential contemporary element of

personalization: consumer and digital technologies. Fashion has begun to

approach a notion of 'Wearable Technologies', as it combines wearable garments

and technologies that can react to any 'senseable' environmental or physical

factors, including temperature, humidity, noise levels, and light. In her book

outlining the direction of this oeuvre, *Fashionable Technology* , Sabine Seymour

states that:

> "Our design philosophy is based on the notion that garments are the
> immediate interface to the environment and thus are a constant
> transmitter and receiver of emotions, experiences and meaning."[12]

Examples can include anything from iPod earphones embedded within Burton

snowboarding coats to textile video game controllers that also function as back

massagers. So, it is easy to see how the assembly of the Echo Coats, utilizing a

personalized technological device like iPod, could easily fall under the greater

umbrella of Wearable Technologies.

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[12] Seymour 2008, 12

THE ANDANTE COAT

The *Andante Coat* is designed as 1960's crème colored, couture-esque coat intended to be worn in the quasi-public spaces of retail and equip what could be considered the contemporary *flâneuse*. A microphone placed near the heart and a bouquet of speakers on the shoulder of the coat. The microphone acts as a sensor and, when pressed, a randomized flow of sensual cosmetic product titles emit from the speakers. As the words leave the speakers, they rhythmically read at the Andante pace, or 70 beats per minute. So as a wearer wanders through retail space and sees a person or an item to covet, the wearer can reach for it, musically, through the language the retail.

Through the language the coat tries to reconnect and reclaim the character of the *flâneuse*. Originally theorized by Modernist French thinkers and notably by poet Charles Baudelaire, the *flâneur* has become a symbol of mobility and Modern criticality. Developed in 19th Century Paris amidst the new industrial urban landscape, this character wanders through this transforming economic and technological environment as free critic and microcosmic observer. However, women at this point in history were only granted domestic environments as their primary seats of power. Women were not encouraged to wander, enjoy the streets anonymously, or define what could be considered a *flâneuse.* Cultural critic Elizabeth Wilson describes in Aruna D'Souza and Tom McDonough's book, *The invisible flâneuse: women and the literature of modernity, "*Women have

continued to be an eruption in the city, a symptom of disorder, and a problem.[13]" For example in modern London, the prostitute appears as a central female trope in the discourse of modernity.

> The problem for women was their automatic identification with this streetwalker whenever they walked in the street. Discussing London in the 1870s, Deborah Epstein Nord identifies the problem for the middle-class woman. It emerges then that the flaneure the central figure of modernity was inherently gendered male.[14]

Thus the development of the female as a public individual posed some particular challenges.

The role of the *flâneuse* began to transform when shopping became an individualistic privilege on the part of the middle-class woman. In the land of retail and its enforced consumeristic imagination, it became accepted arenas of female individualism. Though, feminists have argued that these retail environments were just as much reflecting the cultural notions of the gaze at the time. Anne Friedberg, in her treatise *Window Shopping: Cinema and the Post-Modern,* she summarizes:

> The flaneuse was empowered in a paradoxical sense: new freedoms of lifestyle and "choice" were now available. But, as feminist theorists have amply illustrated, women were addressed as consumers in ways that played on deeply rooted cultural constructions of gender…New desires

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[13] D'Souza 2006, 2.
[14] D'Souza 2006, 19.

were created for her by advertising and consumer culture; desires
elaborated in a system of selling and consumption which depended on
the relation between looking and buying, and the indirect desire to
possess and incorporate through the eye.[15]

The language of the Andante coat is sensual and suggestive, based on the

needs of marketing, commercial hopes of getting the women to buy.

…Heavenly	*Ambrosia…*	*…Dance All Night*
…Frivolous	*Chocolate Suede…*	*…Stay in Place*
…Naked	*Honey Lust…*	*…Please Me*
…Creamsheen	*Plum Luck…*	*…Please Me*
…Sharkskin	*Frozen White…*	*…Tempt Me*
…Amorous	*Passion Fruit…*	*…Dance All Night*
…Heavenly	*Frozen White…*	*…Tempt Me*

Andante Coat   Sample Word Combinations

William Burroughs in the book *Audio Culture* in his chapter the Invisible

Generation, he decries what is silly and ridiculous about our sonic, cultural

space:

> Yes any number can play   anyone with a tape recorder controlling the
> sound track can influence and create events the tape recorder
> experiments described here will show you how this influence can be

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[15] Friedberg 1994, 37.

extended and correlated into the precise operation… You will learn to give the cues you will learn to plant the events and concepts after analyzing recorded conversations you will learn to steer a conversation where you want it to go.[16]

[16] Bourroughs 2004, 334.

THE STACCATO COAT

The *Staccato Coat* is an implement for the urban female that enforces a quick and deliberate route through public locales of transit. Aesthetically and conceptually, it borrows from the modernistic celebrations of movement, speed and the hopes of the industrial machine. It also channels the almost mythic, personalized click of women's boot or shoe heels. Using the musical concept of strong tonal attack, the *staccato* of the wearer's boots echoes through the propeller-like speakers via a microphone placed on the hem of the coat — with machine like effects added to this sound.

THE LARGO COAT

The *Largo Coat* is an exploration in the structural, acoustic and durational properties of sound. The notion of *largo* is considered one of the slowest and most resonant speeds in musical notation. The coat emits minimal tones recorded from the inside of a piano from one set of speakers while the other set pulls the tones and emits real-time recorded samples at a *largo*-based tempo (50 beats per minute). As the wearer walks through different points within the architectural space with its inherent acoustic qualities, it affects the nature of resonance and echo. The design of the coat puts the wearer's ears at the converging point where acoustic, phase and echo coincide. Resonance and echo become the score itself.

In this coat more than in the other ones, I was most interested in exploring the essence of what sound is. I used the largo speed as the base for its narrative and its main director through space. But truly the hope is that, with minimal tones and the durational modulator of RJDJ, time could be chosen as the inspiration to move through space or it could be forgotten. Repetition has been part of the musical tradition forever. And to me that's exactly its power, its limitlessness. To the listener, repetition has no real linear progression. It has no real beginning and end. Also because of this, Steve Reich calls minimalist music 'gradual process,' because slowly reveals itself on its own.

While performing and listening to gradual musical processes one can participate in a particular liberating and impersonal kind of ritual. Focusing in on the musical process makes possible that shift of attention away from *he* and *she* and *you* and *me* outward to it.[17]

I think in a way this is the ultimate part of sounds freedom its ability to help us move through space.

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[17] Reich 2004, 306.

IN CONCLUSION

Our sonic environments have historically been places of contested control. The noise of the urban realm once celebrated, is now shaped by a variety of technological devices. The same applies for the female and her presentation in public environments. She, at once empowered by the new found opportunities of this century, is intrinsically connected to a female cultural perspective. Through the possible transformation through a certain style, and by harnessing the flux of her sonic environments, women can begin to exploit the freedom of moving in the limitless nature of what is auditory. And enjoy how it can inspire their paths everyday.

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