Toward Lyrical Narrative Streetwear to Amplify Urban Community Action

BRETT A. HALPERIN, University of Washington, Human Centered Design & Engineering, USA

DANIELA K. ROSNER, University of Washington, Human Centered Design & Engineering, USA

AFRODITI PSARRA, University of Washington, Center for Digital Arts & Experimental Media, USA

In this paper, we share our early-stage design of an interactive electronic demin jacket that connects to lyrical narratives in the tradition of streetwear to amplify urban community action. As a wearable zine, the jacket materializes elements of the Anti-Eviction Mapping Project's *(Dis)location Black Exodus* zine and music about urban life. The design is both tactile and tactical. It is tactile in terms of how it embeds a LilyPad Arduino MP3 and speakers that are activated with touch sensors through conductive thread. It is also tactical in terms of how it makes streetwear more intimately connected to music and audibly expressive of stories, as well as a vessel to support community organizing and to reconnect streetwear with its origins in narrative justice. At this workshop, we hope to discuss how we might make wearables more inclusive and recognize contradictions and complexities in our body/material practices.

CCS Concepts: • **Applied computing → Sound and music computing**.

Additional Key Words and Phrases: Embodied Narrative, E-Textiles, Music, Social Justice, Storytelling, Tangible Narrative, Wearable

1 INTRODUCTION

Streetwear—graphic tees, hats, hoodies, sneakers, workwear, denimwear, sportswear, skatewear, and casual wear more broadly—is a style that emerged with anti-consumerist, rebellious, and social justice origins as expression to oppression in sub/urban environments. As streetwear experts King Adz and Wilma Stone describe:"The experience of powerlessness and disadvantage... led to physical manifestations of imagination and creativity" [1, p.24]. Yet, streetwear has recently undergone massive cultural appropriation, dislocating from its material, cultural, racial, and socioeconomic roots. What was once about resisting the inaccessibility, normativity, and exclusivity of formal wear, as well as expressing stories of urban injustices through graffiti art born out of the Holocaust and punk and Hip-Hop music-inspired DIY fashion, has mutated into a billion dollar industry [1]. Corporations have essentially gentrified streetwear [7] in extracting cultural cache from the periphery—Black, Brown, Indigenous, Jewish, queer, working class, and counter-cultural visionaries.

By threading the connections between gentrification and street style [7], our work in this paper explores expanding the work of the Anti-Eviction Mapping Project (AEMP) with material technology. The AEMP is a data visualization, digital cartography, and multimedia storytelling collective with chapters primarily in the San Francisco Bay Area, Los Angeles, and New York City. Among its many projects, the AEMP's *(Dis)location Black Exodus* zine chronicles long histories of racial expulsion, exclusion, inequity, and incarceration among Black residents in the San Francisco Bay Area [8]. Working with the AEMP, we look to reformat the zine as a wearable: lyrical narrative streetwear to motivate action.

Much work in human-computer interaction (HCI) and design research has materialized tangible embodied narratives as cultural artifacts [3] for catalyzing social justice and action. In particular, our inquiry expands Halperin's probe of interactive storytelling fabric for amplifying countercultural voices by connecting streetwear to motion graphics and music with embroidered QR codes that link to AR/VR/3D environments when scanned with smart phone cameras [6]. However, in this particular work, we move away from screen mediation by embedding physical computing into textiles, while also conscious of Devendorf and colleagues' insights on the undesirability of wearing a screen [4]. In designing e-textiles, we extend Psarra [9, 10], Rosner [13, 14], and colleagues' works on intimate material encounters [2] for sensing and telling stories through tactile interaction. As our community-based work looks to elevate counter-narratives, we further take a justice-oriented approach to making e-textiles inspired by Strohmayer and colleagues [15]. Similarly, our inquiry builds on Riggs and colleagues' interactive wearable buttons for elevating queer histories of activism by deepening tangible storytelling design through embodied engagement [11]. While these works only scratch the surface of related work, they provide a sense of how in pursuit of justice we aim to craft narrative tactics [12] through tactility.

2 TACTILE AND TACTICAL DESIGN

Our vision for lyrical narrative streetwear evokes tactility as a tactic for urban community action. As a member of the AEMP for the past three years, Halperin is working closely with the collective and Black artists whose works are part of our design. While the AEMP has requested that Halperin work on this project and allocated grant funding to support it, we note that it is in a very early stage—terms of co-authorship and attribution are in flux at this time of submission.

As an initial exploration of lyrical narrative streetwear, we have started to conceptualize and prototype an electronic denim jacket with patches—a wearable zine of collage configurations—for people to touch certain patches that play stories and music aloud. While some patches are static graphics, a few are interactive. Around the denim jacket, we have a metal chain necklace with a thimble as a pendant for people to put their fingers in and thus be able to interact with the patches sewn with conductive thread, thereby activating the audio files stored within a LilyPad Arduino MP3.

The microcontroller contains three lyrical narratives: two songs and one oral history remixed with city sounds and instrumental music. In light of the dislocation theme, the jacket itself is artfully dislocated—the songs are not part of the original zine, but rather elements that expand beyond the San Francisco Bay Area to recognize how the urban injustices are part of a broader system across social geographies. The jacket embodies patches selected for their aesthetic and evocative characteristics, as well as their spatial place-based grounding in a transient rather than fixed way. One song, *Infinite* by music artist Kai from his album Cold Coast, tells a personal narrative about communal upheaval and lack of affordable housing in the San Francisco Bay Area. After experiencing eviction, Kai thought that he would never be able to live in his hometown again (as quoted on the jacket). Meanwhile, the other song, *We're Not Sorry* by Gabrial, a music artist based in St. Louis, is a poetic response to systemic racism that suggests a collective plight across urban landscapes and borders. Both of these songs connect to interactive graphics on the front of the jacket as denoted with sound wave visuals. The third audio file on the back is the oral history of Bay Area activist Marie Harrison who narrates experiences of redevelopment and environmental injustice. Marie's story is printed in the zine, but her audible narration exists outside of it. Thus, in reformatting the zine as a wearable, we design an interactive patch that is a zine graphic of her by Bay Area artist William Rhodes, which plays her story with instrumental music and city sounds aloud when touched.

The touch sensors allow for accessing the lyrical narratives to reconnect streetwear with its roots and motivate urban community action. In relating the touch interface to the visual graphics sewn with conductive thread and the sound stored in the microcontroller to play through embedded wearable speakers, the auditory feedback emerges through the patches, becoming 3D in effect. The technology thus makes the tactile material more expressive and audible for tactical
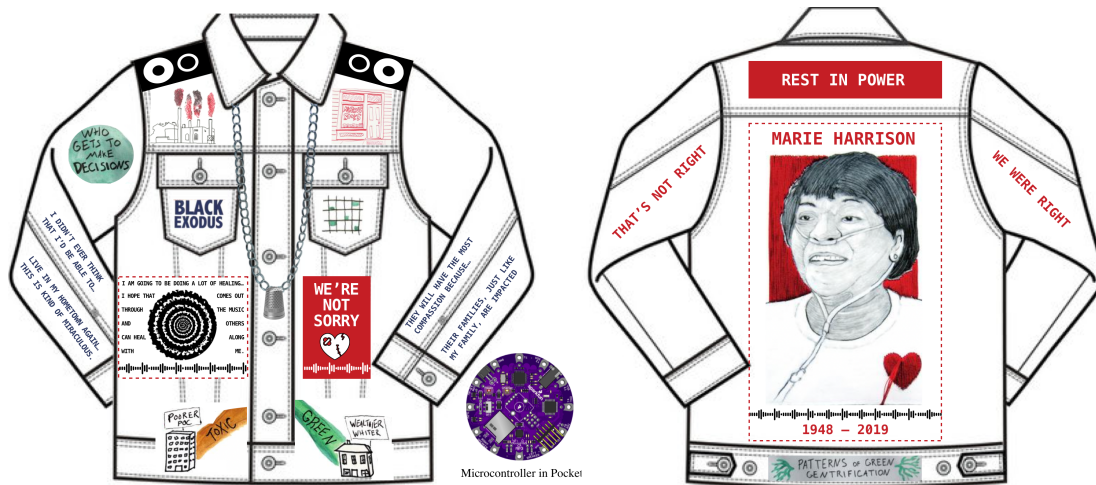
Fig. 1. Front and Back of Interactive Electronic Denim Jacket with Embedded Speakers and LilyPad Arduino MP3.

means. While streetwear has long been a storytelling medium intertwined with music, streetwear has yet to fully connect with sound. By threading the two mediums together, we look to foster a more intimate relationship between the two. Our intent is that wearing the jacket makes one embody its poetry and touching it motivates that person to listen and act upon it. The jacket is thus meant to amplify existing forms of community organizing. Moving forward, we plan to interview more community organizers to determine how to best exhibit this artifact, as well as hold local workshops for collectively constructing other garments as a way to bring people together. The tactility is thus a tactic for building solidarity, raising awareness, and prompting reflection in spaces that can also facilitate collective action.

3 DISCUSSION

Our project so far has explored the tactical and tactile design of an electronic denim jacket that connects to tangible, embodied lyrical narratives—a wearable zine—as a vessel for catalyzing urban community action. The tactile technology is tactical for three key reasons: (1) it makes streetwear more intimately connected to music and audibly expressive of stories; (2) it amplifies community organizing; and (3) it reconnects streetwear with its origins. With this design, we find unresolved tensions entangled with e-textiles and bodies that we hope to collectively reflect upon at this workshop.

Our first point of discussion has to do with the in/exclusivity of e-textiles in accommodating different body sizes and abilities. With the design of the jacket, we realize that as a single artifact it cannot necessarily provide an accessible interaction or fit everyone, even in the oversized silhouette tradition of streetwear. In reflecting on their decision to design wearable buttons to support tangible embodied storytelling in an inclusive form, Riggs and colleagues write: "We chose a more universally wearable button for our design, as opposed to a jacket or more fitted piece of 'ephemera,' which would limit participants based on size" [11]. On one hand, we recognize and appreciate how this decision to design wearable buttons foregrounds inclusivity. But on the other hand, we do not want to universalize or foreclose fitting possibilities of e-textile garments such as streetwear because of variegated differences. We thus pose the following question for discussion: *how might we make e-textile garments more inclusive of bodies, even in one off designs?*

As a second discussion point, we want to further unpack the contradictions and complexities in e-textiles. As our design focuses on community-engagement like other participatory e-textile projects [15], we turn to Tuck's open letter

to communities, researchers, and educators to suspend damage-centered research—that is, "research that intends to document peoples' pain and brokenness to hold those in power accountable for their oppression" [16]. Tuck applies Gordon's framework of complex personhood [5] to call for a desire-based approach that recognizes the complexities and contradictions of people, while centering their hopes and dreams in spite of oppression. To elucidate this, Tuck shares a story that her colleague, Monique Guishard, told her about working with youth coresearchers on critical inquiries during the day and later lining up with them outside of a streetwear store, awaiting to buy newly released sneakers:

> *Monique was taken aback by the irony of the situation: on the same day these youth were openly critical of corporate capitalism and globalization, they waited with hundreds of other youth and adults to purchase an item that represents some of the worst elements of global capitalism and exploitation. But she was even more taken aback by her youth companions' awareness and ease in/side that irony. In a damage framework, one might surmise that, even when faced with options, youth are pliant to the consumerist status quo. However, in a desire-based framework that draws on the idea of complex personhood, we see that... [w]e can desire to be critically conscious and desire the new Jordans, even if those desires are conflicting* [16].

In this analysis, we see a heightened complexity around damage vs. desire-based research in the realm of streetwear specifically and textiles more broadly. In heeding to Tuck's call for suspending damage, our jacket aims to foreground power, solidarity, and poetry as creative expression to resist systemic oppression on one hand. But on the other hand, it documents damage to an extent and celebrates materialism implicated in oppressive supply chains. We thus ask: ***what might we learn from collectively reflecting on contradictions and complexities in our body/material practices?***

REFERENCES

[1] King Adz and Wilma Stone. 2018. *This is not fashion: Streetwear past, present and future.* Thames & Hudson London.

[2] Gabrielle Benabdallah et al. 2022. Slanted Speculations: Material Encounters with Algorithmic Bias. In *Designing Interactive Systems Conference.*

[3] Jean Ho Chu and Ali Mazalek. 2019. Embodied engagement with narrative: a design framework for presenting cultural heritage artifacts. *Multimodal Technologies and Interaction* 3, 1 (2019), 1.

[4] Laura Devendorf, Joanne Lo, Noura Howell, Jung Lin Lee, Nan-Wei Gong, M Emre Karagozler, Shiho Fukuhara, Ivan Poupyrev, Eric Paulos, and Kimiko Ryokai. 2016. "I don't Want to Wear a Screen" Probing Perceptions of and Possibilities for Dynamic Displays on Clothing. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems.* 6028–6039.

[5] A Gordon. 1997. Ghostly matters: Haunting and the sociological imagination: U of Minnesota Press. (1997).

[6] Brett A. Halperin. 2022. Airbrush Hyperfabric: Designing Interactive Storytelling Fabric Connected to Motion Graphics and Music. *Interactions* 29, 3 (apr 2022), 8–9. https://doi.org/10.1145/3529705

[7] Ires van Hout. 2022. Gentrification of Sneaker Culture A qualitative research into the gentrification process of sneaker consumer culture. (2022).

[8] The Anti-Eviction Mapping Project. 2019. *(Dis)location/Black Exodus.* https://antievictionmap.com/dislocationblack-exodus

[9] Afroditi Psarra and Audrey Briot. 2019. Listening Space: Satellite Ikats. In *Proceedings of the 2019 ACM International Symposium on Wearable Computers.* 318–321.

[10] Afroditi Psarra, Sadaf Sadri, Esteban Agosin, Grace Barar, Rylie Sweem, Cindy Xu, Ruoxi Song, and Zoe Kaputa. 2021. Sensing textures: Tactile resistance. In *2021 International Symposium on Wearable Computers.* 211–215.

[11] Alexandra Teixeira Riggs, Noura Howell, and Anne Sullivan. 2022. Button Portraits: Embodying Queer History with Interactive Wearable Artifacts. In *Interactive Storytelling: 15th International Conference on Interactive Digital Storytelling, ICIDS 2022, Santa Cruz, CA, USA, December 4–7, 2022, Proceedings* (Santa Cruz, CA, USA). Springer-Verlag, Berlin, Heidelberg, 28–47. https://doi.org/10.1007/978-3-031-22298-6_2

[12] Daniela K Rosner. 2018. *Critical fabulations: Reworking the methods and margins of design.* MIT Press.

[13] Daniela K Rosner and Kimiko Ryokai. 2008. Spyn: augmenting knitting to support storytelling and reflection. In *Proceedings of the 10th international conference on Ubiquitous computing.* 340–349.

[14] Daniela K Rosner, Samantha Shorey, Brock R Craft, and Helen Remick. 2018. Making core memory: Design inquiry into gendered legacies of engineering and craftwork. In *Proceedings of the 2018 CHI conference on human factors in computing systems.* 1–13.

[15] Angelika Strohmayer, Laura Cortés-Rico, Tania Pérez-Bustos, Afroditi Psarra, Daniela Rosner, Özge Subasi, Irene Posch, Sara Nabil, and Jihan Sherman. 2022. Justice-oriented Participatory Electronic Textile Making: Fostering shared spaces of knowledge dialogues through the process of making, un-making, and re-making justice-oriented participatory praxis. In *Proceedings of the Participatory Design Conference 2022-Volume 2.*

[16] Eve Tuck. 2009. Suspending damage: A letter to communities. *Harvard educational review* 79, 3 (2009), 409–428.