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**Relating Systems Thinking and Design  
2022 Symposium  
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## **The Hip Hop Xpress Double Dutch Boom Bus**

### **Remixing the university and co-designing futures with Black youth in the United States**

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The Hip Hop Xpress Double Dutch Boom Bus (the Xpress) travels across the United States to parks, schools, universities, and parking lots to connect generations, highlight Black cultural legacies, and invite young people to try new activities all inspired by Hip Hop and its antecedents. Dr Will Patterson uses the Xpress as a rolling laboratory to bring academic disciplines and methods to the street, wherever people gather. Often the Xpress delivers hands-on engagement via Dr Patterson's 'Street College.' In that context, Dr Patterson calls on young people to think about the 'Street Inquiry Design Cycle,' human-centred design and inquiry from a Hip Hop perspective. The cycle has six phases -- authenticate, investigate, ideate, illuminate, prototype, and evaluate. One Street College session features building boom boxes. Working in teams, the youth initiate their own research by first authenticating and investigating a challenge by studying and taking apart boom boxes. Following authentication and investigation, the youth ideate: brainstorming together and individually in their journals and orally. The students then use the design cycle to assemble boom box kits, try out different ways of solving problems, and evaluate the results.

The Xpress, a 21st-century Jesup Wagon, links academic research to historically excluded communities, while also aiming to alter research trajectories with compelling questions and solutions from those outside the academy. The Xpress is not only an intervention in higher education but also, more broadly, nourishment for collective designs and improvisational responses to systemic social oppressions. Key features of the Xpress are its mobility, its internet connectivity, its links to Black cultural wealth, and its 'wow factor,' the stunning visual wrap that serves as an algorithm that moves crowds.

The Xpress team has remixed parts of the current land grant university where we are based, the University of Illinois, Urbana-Champaign, with local young people, along with other institutions, organisations, businesses, and artists. We aim to redesign the academy to nurture Black youth. Systems of academic whitewashing have perpetuated disengagement and disbelief on the part of Black youth. The Xpress team works with these youth to co-design ways and means to create knowledge, increase opportunities, and transform higher education. This case study focuses on Street College, the Xpress bus and its design development in the context of systems of oppression in the United States.

KEYWORDS: hip hop, street college, street inquiry design cycle, black cultural wealth, alternative pedagogies

RSD TOPIC(S): Cases & Practice, Learning & Education

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## **Introduction**

What if you are a young Black person in a neighbourhood with a major research university nearby, but there are only limited opportunities for you and your neighbours? At a nearby park, you see people gathering. You and your friends go and discover a multi-coloured bus blasting music; there's also a variety of DJ tools to share, linking Black cultural wealth of the past to that of the present and future. There's equipment to try out, such as drones, robots, and remote-control (RC) cars. People young and old are

drawn to a repurposed school bus, the Hip Hop Xpress Double Dutch Boom Bus (the Xpress), which travels across the United States to parks, schools, community centres, universities, and parking lots to spark connections among generations, highlight Black cultural legacies, and invite young people to try new activities, all inspired by Hip Hop and its antecedents (Smith, 1981). This case study focuses on the Xpress bus and its design development in the context of systems of oppression in the United States.

### **Street College: remixing the university**

In a musical remix, the remixer acknowledges the original source, the root, while splicing segments together in new ways, going in possibly different directions from the original. The Xpress team has remixed parts of the current land grant university where we are based, the University of Illinois, Urbana-Champaign (UIUC), with local young people, along with other institutions, organisations, businesses, and artists. A predominantly white institution (PWI) in east central Illinois, UIUC was founded in 1867 as part of the Morrill Act of 1862 (Lee & Ahtone, 2020).

The Hip Hop Xpress Double Dutch Boom Bus (Figure 1) is inspired by earlier efforts in the Delta South and at other land grant universities, like Tuskegee Institute (now University). Tuskegee was initially one of about 20 institutions included in the *Morrill Act of 1890*, which extended land-grant status to historically Black colleges and universities. The first *Morrill Act of 1862* established land-grant universities such as the University of Illinois, Champaign-Urbana, yet the *Act* did not help Black people, who were excluded from white institutions, particularly in the South. Descendants of enslaved people and sharecroppers who arrived in Champaign-Urbana (C-U) provided services to and at UIUC yet were not served by this public institution, despite its land-grant mission. Historically, Black bodies arrived on campus and in the community to a hostile reception and were surveilled, segregated, beaten, jailed, and killed. Black residents in C-U instead nourished their cultural wealth within their own neighbourhoods.



Figure 1. The Hip Hop Xpress Double Dutch Boom Bus is inspired by earlier efforts in the Delta South and at other land grant universities.

Land grant educational institutions were intended to instruct citizens in 'agriculture and the mechanic arts,... to promote the liberal and practical education of the industrial classes.' (APLU, 2013) While Black land-grant institutions rarely received either land or funds, they still focused on skills needed for rural survival. Many of the institutions were firmly established by 1910; during the next decade, when large numbers of Black people left the U.S. South to migrate North, they brought music, agricultural and craft skills with them to urban, industrial settings in which their skills were not in demand. The land-grant institutions in the northern and western states, while not officially segregated, were not designed to educate Black people. In fact, these schools often discouraged Black enrolment by, among other tactics, preventing Black students from living on campus (Cobb-Roberts, 1998; Williamson, 1999). Young Black people were

excluded from professional training, yet didn't have alternatives to help them survive, much less thrive.

Hip Hop is a movement of innovation rooted in Black culture that has shifted beyond the activities of DJing, Breaking, Rapping and Graffiti. In the mix now are spoken word, poetry, fashion, visual art, and humanities. Engineering and entrepreneurship are also cornerstones in Hip Hop, recognising hard-won ownership of ideas and activities as vital to building Black brands and maintaining Black cultural wealth. The Xpress is a tool and a platform that uses Hip Hop to uncover and feature the legacies of Black culture, as well as to present alternative pedagogies that interrupt and redirect mainstream approaches to education (Yosso, 2005). Hip Hop fundamentally shapes this work through knowledge transference, youth-driven change, improvisation, remix, and disruption.

Ours is a slow process. We aim to redesign the academy to nurture Black youth. We must build 'our [Black] individual and collective capacity to observe ourselves even while in the vicious grips of racism, patriarchy, homophobia, and other forms of oppression' (Ginwright, 2022, p. 48). In observing ourselves in these contexts, we realise that we must create social infrastructure to support historically excluded youth while simultaneously challenging the existing structures that perpetuate those exclusions. While Champaign-Urbana hosts the University of Illinois, systems of academic whitewashing have perpetuated disengagement and disbelief on the part of Black youth in C-U, who live in the shadow of this PWI. The Xpress team works with these youth to co-design ways and means to create knowledge, increase opportunities, and transform higher education.

There's a lot of social networking and relationship-building at the core of this work to build or rebuild trust among community members, educational institutions, and city governments. For over a decade, Dr Patterson has been hosting Street College events around the state of Illinois. Street College brings academic disciplines and methods to the street, parks, or school playgrounds, wherever people gather. Prior to the purchase of the Hip Hop Xpress bus, Street College occurred using spaces where the Xpress team could get electricity, bathroom access, and some weather protection, like at Douglass Park, in the historically Black neighbourhood of Champaign. Drawing on the model of

George Washington Carver's Jesup Wagon, Dr Patterson created the 'N Search of Hip Hop' project in 2010, using two different trailers outfitted as sound studios. In the summers of 2018 and 2019, for example, the 'N Search of the Hip Hop team set up Street College in a Douglass Park pavilion (Patterson & Irish, 2019). The team went where people were and used music and fun activities to attract attention and conversation.



Powerful imagery was one way to grab attention. The promotional banner for Street College used a collaborative design between artist Stacey Robinson and Dr Patterson. It shows the Death Star from the Star Wars movie series repurposed from its imperial destructive function into the Mos Def Star, an object which connected Hip Hop via wordplay to the insightful Brooklyn rapper Mos Def (Yaslin Bey). Robinson inserted a speaker and wires into the top of the sphere and wrapped a 'ring' around the planet-like object; the ring's vinyl record grooves hovered under a turntable arm.

Figure 2a. Banner lists activities offered in the Ghetto Genius Universe. Artists: Stacey Robinson & Dr Patterson.



Figure 2b. Ghetto Genius Universe poster. Artists: Stacey Robinson & Dr Patterson.





Figure 3. Authentication phase.

The end of the turntable arm looks like a space machine, given that it rises above a distant view of the continent of Africa, so that the Mos Def Star becomes a futuristic machine fused with Earth. Situated below purple clouds is an image of the densely-crowded downtown Chicago. The banner version lists activities offered in the Ghetto Genius Universe (Figure 2a). The banner visualises aspects of Afrofuturism, which invites young people to imagine different futures for themselves and their communities, while being rooted in the past and the present (Figure 2b).

As Shawn Ginwright (2022) notes:

We build foresight when we cultivate the ability to imagine, dream, hope, all the while holding our key lessons from the past.... Black folks have our own term for

this of course—Afrofuturism, the ability to imagine a world not bound by time and constraints of the past, nor a predetermined future. (pp. 46–47)

### **Street inquiry design cycle**

In the summer of 2019, the Hip Hop Xpress team partnered with Illinois Siebel Center for Design (SCD), the Champaign Public Library, the Don Moyer Boys & Girls Club, the Champaign Park District, and the mentoring program, Boyz2Men, to provide a six-day program, Street College, for African American youth at Douglass Park in Champaign. The week's activities featured building boom boxes in teams, together with student and adult volunteers. We consistently had fifteen youth (mostly ages 12–14) and, on a few days, we had 20, in addition to adult volunteers. With that many people in an open park pavilion, information needs to be imparted quickly and with intention.

Dr Patterson calls his approach the “20/20 instructional method.” After a check-in with the youth, no more than twenty minutes is devoted to an instructor's providing context and theory. Then follows about 20 minutes of applying material in hands-on activities. This approach repeats throughout the session, though usually any subsequent presentation is considerably shorter than 20 minutes.

During Street College, Dr Patterson calls on young people to think about design with a set of posters that display what he terms the ‘Street Inquiry Design Cycle,’ human-centred design and inquiry from a Hip Hop perspective (Bruce, 2008). The cycle has six phases—authenticate, investigate, ideate, illuminate, prototype, and evaluate—which intentionally engage the Hip Hop generation. The Street Inquiry Design Cycle was prompted by Dr Patterson's awareness of the scepticism in African American communities about academic research—a process in which outsiders typically ask questions and conduct investigations without input from community members. This alienating approach historically has been used to side-line and sometimes criminalise community members. The Street Inquiry Design Cycle, then, is a multi-step authentication process in which African American culture infuses every stage. It reflects local knowledge augmented by cultural practices, rituals, and shared values.



Figure 4. Authentication phase poster. Artist: Joe Bolton.

In the authentication phase, Dr Patterson used a poster designed by team member Joe Bolton to spark discussion about what inspired the boys and young men (ages 12-18) and how they could use those ideas to accomplish their goals. Bolton's drawing depicts an androgynous young person listening to music through headphones (Figures 3&4). The music is linked to a map of Africa. Dr Patterson asked the participants to write on sticky notes what the drawing made them think about (Figure 5). One sticky note read "Getting his mind cleared out by music." Another: "Relaxed." A third: "He is bold."



Figure 5: Sticky notes read “Getting his mind cleared out by music,” “Relaxed,” “He is bold.”

After that interaction, the youth began investigating, considering in their journals what makes boom boxes work, by studying and taking apart boom boxes provided by Street College staff. In the ideation and illumination phases, in discussion with each other and instructors, the youth started to link their own ideas to what they learned during their investigation and how to communicate their knowledge to others in order refine their understanding. How would their ideas affect their prototypes? Once they began building individualised boom boxes from kits, they were prototyping a model of what they had learned about electronics and music production. The prototyping phase helps structure the evaluation by comparing the outcome with what the participant intended to produce.



Figure 6. Boom boxes built from kits.

The future materialised that week as they built and decorated their kits, learning about circuitry and sound. In addition to building boom boxes in pairs, there were opportunities to troubleshoot RC cars for racing, try DJ equipment, and shoot some hoops. The nearby basketball court became another space for testing RC cars.

Hip Hop fosters relationships. The mindset of collaboration builds the necessary skill sets to cycle through the research process with feedback calibrating the cycle. This innovative paradigm introduced in Street College stresses the expertise held by the

participants and the reciprocal ways in which knowledge is created. The youth discussed the cycle and grew to understand the fluid, iterative design process. In Hip Hop we say, 'who put you on?' Who can vouch for your authenticity? How is it displayed or presented? The Street Inquiry Design Cycle centres Black culture and expertise to reimagine African-American communities. Multiple voices blend, prioritising questions that emerge from community-led investigations.

Recognising that Hip Hop artists have long been innovators and inventors in technology as it applies to business, fashion, music, DJ-ing, dance, and visual arts, the Xpress team is dedicated to bringing the typically academic acronym of STEAM (science, technology, engineering, arts, and math) into community parlance. Further, we seek to build connections from the local communities -- youth growing up in the shadow of the university -- to the campus, recognising that campus structures must change to foster and expand these connections. The Hip Hop Xpress is one link to the university, exposing local youth to the language and process of the Street Inquiry Design Cycle. Other connections are built in Dr Patterson's university course offerings, which use community-based projects. These pathways for 'shadow kids' -- from exposure to deeper engagement -- are evolving. One example of this evolution is a cross-campus course that embedded a youth program into its design and implementation, so that the youth participated a college class and the university students attended the youth meetings.

### **Hip Hop entrepreneurship**

In 2019, the Xpress team was awarded sufficient funds to create the third version of the Hip Hop Xpress (there were two other versions since 2010). The funds came from the University of Illinois system's Presidential Initiative to Celebrate the Impact of the Arts and the Humanities. Collaboratively submitted by Dr Patterson, Professors Adam Kruse (Music Education), Malaika McKee (then in African American Studies) and Tiffani Saunders (then in Sociology at the University of Illinois-Springfield), the project expanded Dr Patterson's work through collaborations with other academics. As a tool to support these areas, we acquired a school bus designed to be an internet-connected mobile classroom and sound studio.

The Xpress at UIUC was inspired by the Tuskegee Movable School, an innovation created by Booker T. Washington and George Washington Carver in 1906 (Jones, 1953). The Movable School brought courses in agriculture to African American communities in Alabama to help bridge the education gap created by white supremacist beliefs and practices. Carver used this movable school, what he named the Jesup Wagon, not just to teach, but also to involve the community in the newest technologies in agriculture. The Xpress is now Dr Patterson's own version of the Jesup Wagon. It is a mobile laboratory, deeply integrated with the histories and innovations of African Americans in a wide range of disciplines and a place for visitors to explore and design and share ideas. As a rolling Boom Bus, the Xpress is also an instrument itself: seats serve as drums, keyboards are readily available, machinery rattles.

Hip Hop, by definition, is interdisciplinary, involving spoken word, music, dance, visual arts, engineering, materials science, and history, as well as futurism. Dr Patterson worked with artist John Jennings to design a wrap for the bus that would compel attention and pay homage to the legacies of Black music. Indeed, the wrap is a rolling mural that provides powerful visuals; the exterior portraits honour about 30 Black musicians or musical groups.

In the Spring of 2020, the bus was the focus of an interdisciplinary course at UIUC (Figures 7&8) co-taught by Dr Patterson and Professors Kevin Erickson (School of Architecture) and Adam Kruse (Music Education). Students received credit through three separate departments. Erickson taught his architecture class as a special topics course, Kruse's 400-level class was called Designing Musical Experiences, and Dr Patterson brought students from his sometime-base in the Technology Entrepreneur Center in the College of Engineering. Together with local leaders and youth-serving organisations, the students and faculty collaborated on the 'design, (de)construction, and the development of programming and community partnerships' for the Xpress (Kruse, 2020a).



Figure 7 (above) and 8 (below). University of Illinois, Urbana-Champaign interdisciplinary course.

The UIUC students, youth from local mentoring programs, and community leaders all showed up on campus to discuss and prototype interior layouts of the newly-acquired bus. UIUC students interviewed the youth, visited their gatherings at the local library, listened to music together and created design timelines.

The interactions among varied participants, by design and by serendipity, began to shift institutional practices and unexamined assumptions. For example, one of the many benefits of this collaboration, according to Dr Kruse,

[...] was the opportunity for the preservice music educators to work alongside students from other disciplines and community youth. The field of music education is one that is disproportionately white and predominantly eurocentric



in its curricula. This reality challenges music teachers seeking to engage with Hip Hop culture since music educators are unlikely to be Hip Hop artists or have meaningful experiences with Hip Hop music themselves (Kruse, 2014). The experience of working and learning with instructors and students whose expertise represented other disciplinary traditions, and especially with the community youth whose cultural wealth represented forms of genius that differed from the music students' own, provided a powerful model to help these future music teachers practice the role of learner and facilitator (Kruse, 2020b, 2020c).

Architecture student Zach Twohey, who has been with the project since 2020, reflected:

My involvement with the Hip Hop Xpress began when I was a junior in architecture. Not only was this course an opportunity to work with my colleagues in architecture, but it was also a way for me to connect for the first time with



students in music and the youth of Boyz2Men. The unique collaboration among people with a variety of different backgrounds provided an optimal platform for design decisions. Having the experience of incorporating the many ideas discussed among each team has expanded my skills in participatory design. The consideration of detail runs deep through this project from the initial design concepts into the built product. The project was strengthened by multiple perspectives and continues to inform my work now that I am in graduate school.

The pandemic shut down the in-person course mid-semester, in March 2020, after we had removed the bus seats and made some progress on interior design. In central Illinois, the shutdown meant that formal course offerings went online in mid-March 2020. But many in our communities didn't have reliable internet access at home and the public libraries had closed. The mobility and wifi capability of the Xpress allowed us to partner with a university shuttlebus service and park at scheduled times near subsidised housing sites to provide some access for those living within the radius of our signal. Internet-enabled vans of other youth-serving organisations were also parking around town, providing some coverage for families and their children. While far from an adequate means to address digital inequity, the HHX collaborations shifted to meet an immediate need, temporarily setting aside the design inquiries that had been underway. The joint efforts fostered by pandemic necessity have since strengthened among several of the community organisations so that we have now obtained shared funding from local governments and park districts to expand our programming.



Figure 9 (above) and 10 (below). The Hip Hop Xpress Double Dutch Boom Bus arrives.

### **Look what Hip Hop can do!**

The Xpress team aims to get acquainted with local concerns and dreams as they are presented by those who are living with those concerns and dreams, the authentication phase of the street inquiry cycle. To start conversations, the Xpress team provides activities to spark interest in STEAM subjects, expose people to possible pursuits, and build community. The Hip Hop Xpress Double Dutch Boom Bus arrives on a campus or in a neighbourhood to meet people where they are—physically, intellectually, and emotionally (Figure 9).

During the summer of 2020, we took the bus to various communities to investigate and ideate with them about what else they wanted the bus to be. Dr Patterson and other team members have partnered with many organisations in the Midwest for a couple of decades and our visits were arranged by mutual agreement. Due to COVID protocols, people didn't enter the bus, which, in any case, had been intentionally emptied of seats and equipment in preparation for an interior redesign. Below is a small sampling of



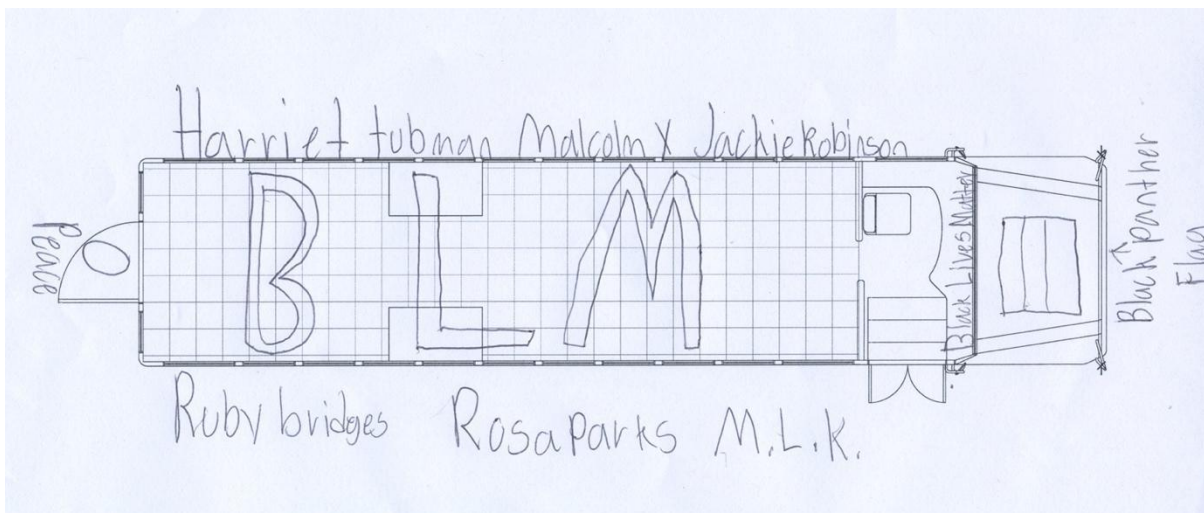
ideas from a group of Black boys (ages 12–14) participating in a July 2020 program; the organisers had invited the Xpress to visit. (Names have been replaced by initials to protect youth's privacy). Other contributions have come from Chicago, East St. Louis, Springfield and Rantoul in Illinois, and Dayton, Ohio, and Tuskegee, Alabama. Each of these visits included some phases of the inquiry cycle, building on long-term relationships the team has in most of these locations.

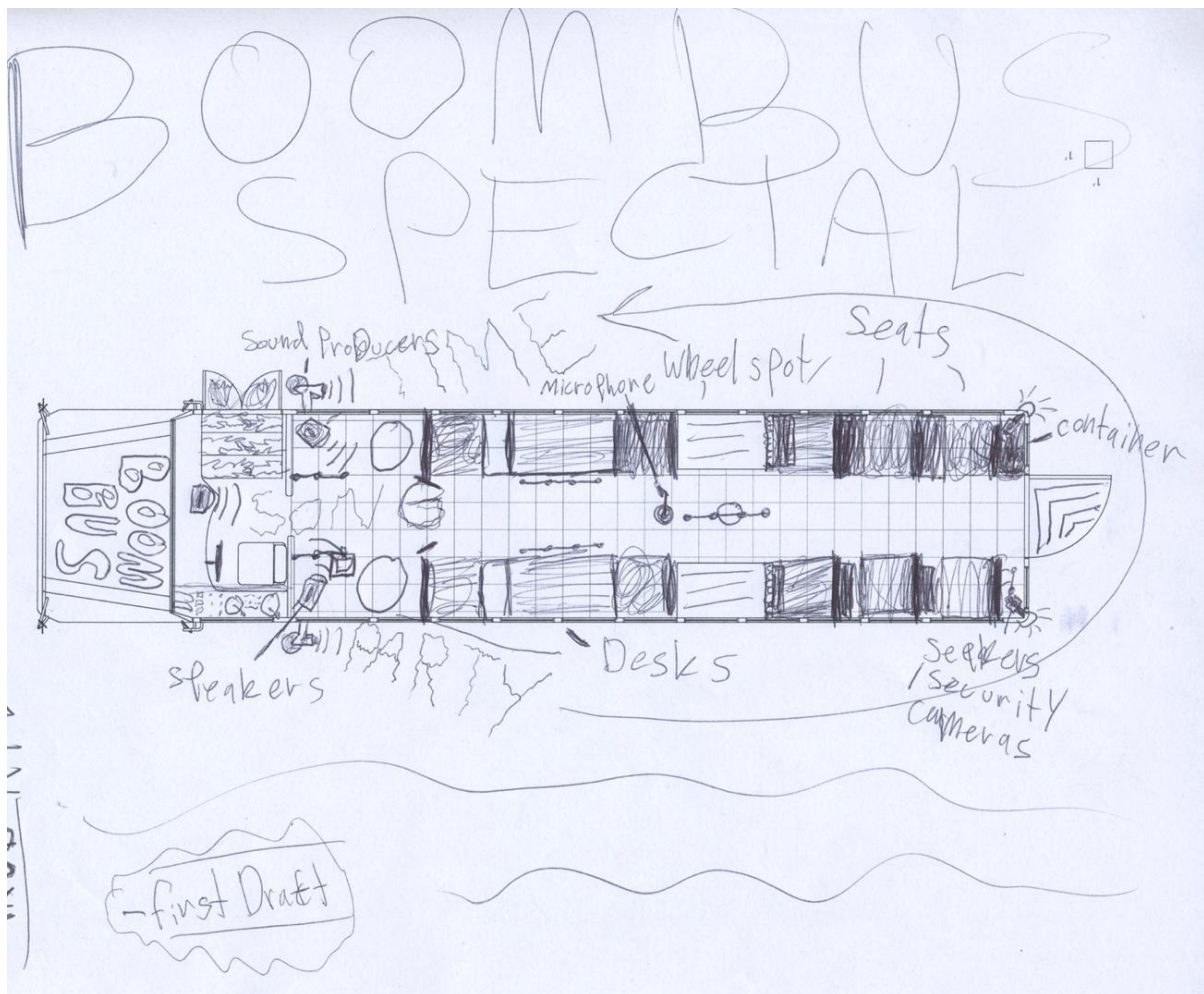
17 July was a very hot, humid day in Champaign, two months after the murder of George Floyd in Minneapolis on 25 May 2020. We assembled under a tree in the shade with the boys seated on chairs, face masks sagging in the heat, and talked with them about the ideas that shaped the bus. (Figure 10). They were given copies of a plan of the bus to draw and write on, as the bus was in the nearby parking lot.

KD (about 12 years old) proposed a Black Lives Matter (BLM) bus. He suggested a Black Panther flag on the front of the bus, 'Peace' written on the back, and BLM on the top. Along the sides of the bus, he wrote names of well-known Black leaders: Ruby Bridges, Rosa Parks, Martin Luther King, Jr., Jackie Robinson, Malcolm X, Harriet Tubman. He thought a custom horn would be good, with 'Always Love People' on the ceiling. He suggested a mic on the side of the bus. In a similar vein, MB suggested putting a radio on the bus with speakers to blast rap, as well as a recording studio; on the side of the bus, MB wanted the words 'I can't breathe' along with George Floyd's name. He named the bus 'Black Lives Matter' and wanted portraits of LeBron James and Tupac added to the exterior. J's design, titled 'Boom Bus Special,' spelled out 'Time' and 'Party' in squiggly lettering. J indicated placements for speakers, 'sound producers,' microphone, desks, security cameras, seats, and containers on and in the bus. He positioned a mic in the centre aisle of the bus, between the wheel wells. He even recognised the iterative process of his design by noting it was the "first draft."

## L

L wrote about the "science of flow" and listed Sean Coombs, Tupac, Dr Dre, Snoop Dogg, Ice Cube, among others, as musicians to honour. 'Flow' in Hip Hop refers to the interactions of rhymes and rhythms, and L clearly understood that these aspects could be broken down and analysed scientifically. E wanted a checker table, boom box and air conditioning.



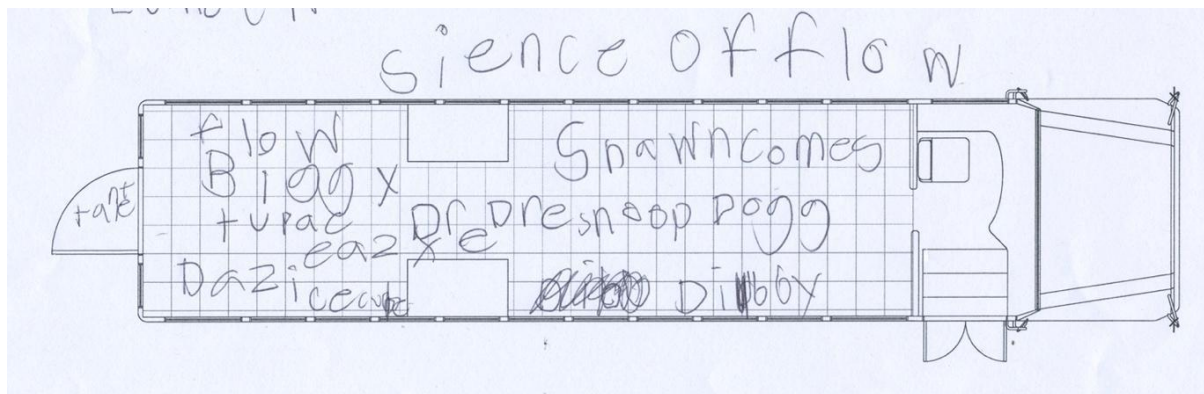


Another boy proposed a gaming bus, with television screens in every seat, two people and two controllers per seat. Another youth suggested a party bus and food truck, as well as having a way to request a song. D suggested a gold floor and a game set-up inside, along with Hip Hop artists depicted on the interior.

### **Designing escape routes from oppressive systems**

"If our imprisonment is designed then so must be our escape." (Robinson, 2018)

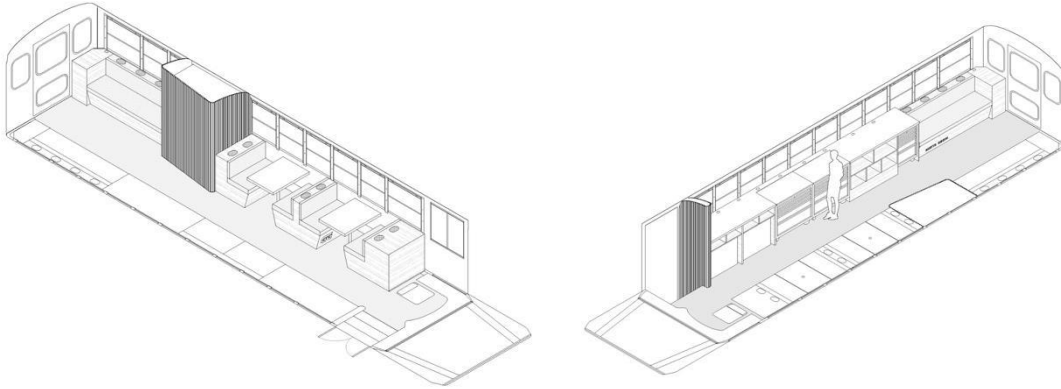
The Xpress had a full schedule of 'bus stops' for the summer months, locally and across the state. The fall of 2022 finds the Xpress team finally able to install furniture and equipment in the bus, after supply chain delays, COVID precautions, and a host of other hurdles. Many of the features suggested by youth are now in construction. As of this



writing, the interior is taking shape, including hangout spaces, DJing equipment, and RC car storage. Come September 2022, solar skins will go on the roof to power the audio equipment. The U of I Student Sustainability Committee provided \$40,000 (USD) of funding to purchase and install the solar panels, batteries, and generators.

The Xpress links academic research to historically excluded communities, while also aiming to alter research trajectories with compelling questions and solutions from those outside the academy. The Xpress is not only an intervention in higher education, but also, more broadly, nourishment for collective designs and improvisational responses to systemic social oppressions. Key features of the Xpress are its mobility, its internet connectivity, its links to precedents like the Jesup Wagon and other Black cultural wealth, and its 'wow factor,' the stunning visual wrap. Further, the Xpress team has used the slow development trajectory of the Xpress to assess and reflect upon the work to date, linking our project to strategies for broader impact on educational systems, such as the interdisciplinary course offering from spring of 2020.

UIUC is a Research One land grant university that has the know-how and resources to help upend alienating policies and practices, but students in local public schools did and do not see a place for themselves on campus; they are in the shadows of the institution. That continues to be the case because the infrastructure for moving youth of colour from local middle and high schools into a historically and predominantly white institution (PWI) is insufficient in scope and support, though the Xpress team works to make that infrastructure more robust and to ensure that it is co-created with youth.



Above: L—driver's side; R—passenger side. Design team: Kevin Erickson (Principal), Efrain Araujo, Kaitlyn Baker, Zach Twohey, 2022.

An extensive body of research has demonstrated that academic collaborations with community-based groups are critical to involving historically excluded groups (Patterson, 2000). There is a need to build respectful participatory and cooperative partnerships between community members and university staff and faculty to address systemic racism, but these can only occur if research and learning are done in conjunction with a community's people. If this implementation is not informed by, responsive to, and reciprocal with Black communities, for example, any such activities at a PWI will remain limited and exclusionary, continuing the status quo in ways that harm us all. Kathleen Fitzpatrick in *Generous Thinking* (2019) asked

What if the expertise that the university cultivated were at its root connected to building forms of collectivity, solidarity, and community both on campus and off? What if the communities around the campus were invited to be part of these processes?... What kinds of public support for institutions of higher education might we be able to generate if we were to argue that community-oriented projects exist in consonance with the work that scholars do in the classroom, or



in professional forms of writing, and that institutions must therefore value participation in such projects appropriately? (p. 44)

New tools and theories such as the Hip Hop Xpress and the Street Inquiry Design Cycle help connect with marginalised communities. African American human-centred design transforms and transfers knowledge, making it applicable in other settings. While working locally and in specific organisations, we take a systemic view of design, recognizing that white supremacy was intentionally designed and, in hope and resistance, we can design alternate futures, informed by Black cultural wealth, past and present. While our main goal is to build structures that allow Black youth to realise their best selves, we also aim to help transform higher education.

It is past time for institutions of higher education to change course. By dismantling harmful practices and supporting changemakers, institutions of higher education may gain from efforts to repair relationships and lift up local contributions, working toward an ecology of equity. Hip Hop is a cultural lens that can engage the next generation in higher education. Indeed, it is crucial that institutions of higher education welcome underrepresented scholars and students into their midst in order to transform the institutions into increasing relevance in the workplace, in the intellectual realm, and in the communities that host them. We must redesign pathways to those institutions for those historically excluded, both for credentialing and knowledge creation by people previously shut out.

Clearly, this redesign is easier said than done, and it will always be ongoing. The Street Inquiry Design Cycle, however, offers one guide. First, the authentication stage is crucial to gain credibility for any effort across difference. This stage is perhaps the most time-consuming and care-full step. For the University of Illinois, there needs to be substantial commitment to address past and current harmful practices. Eve Tuck eloquently argues about the damage done by academic research: 'The trouble comes from the historical exploitation and mistreatment of people and material. It also comes from feelings of being over-researched yet, ironically, made invisible.' (2009, 412)

Sasha Costanza-Chock wrote in *Design Justice* (2020)

[...] design justice...is about process and outcomes. Design justice asks whether the affordances of a designed object or system disproportionately reduce opportunities for already oppressed groups of people while enhancing the life opportunities of dominant groups, independently of whether designers intend this outcome (p. 41).

Flipping Costanza-Chock's quote around, the street inquiry cycle prioritises the "already oppressed groups" and centres their questions, ideas, explanations and prototypes. The Xpress team invites those whose opportunities have been reduced by systemic racism to examine objects and practices and remix, alter, and discard those that hinder possibilities for them and their communities.

Our work fosters healing from and reversals of alienation and trauma, led by those who are most impacted by them. It re-engages Black youth through their own vibrant culture: We take static content and activate it for a purpose that resonates with the spirit of transference in Hip Hop culture. Rather than 'designing incremental improvements within the terms of current systems,' (Drew, Winhall, Robinson 2020), the Xpress team aims to experiment with alternative pedagogies that would fundamentally alter the institution (and others like it) from which we emerged and uplift the communities in which we live. While we engage in rapid prototyping, user-driven activities, and participatory design, we do so (imperfectly) by evaluating what assumptions are embedded in the prototypes, who the users are, and what the structures are in which we participate that may continue or increase harm. This process of taking stock returns us to the authentication process in which we reflect upon our own values, how they have been transformed in previous cycles and what investigations need to come next.

The Hip Hop Xpress has shown up at various community events, schools, and libraries in cities in Illinois—Champaign-Urbana, Chicago, Springfield, East St. Louis, Quincy—as well as Dayton and Columbus, Ohio, and Montgomery and Tuskegee University in Alabama, drawing local residents of many ages together around music, memories and skill-sharing. African American legacies drive the projects, including music history in which travel by the Xpress recalls the Chitlin' Circuit offerings: jazz, funk, blues, and house (Lauterbach, 2012). With music audible from speakers outside of the bus, people

come together to visit and learn new skills, such as digital storytelling, mash-ups, DJing, and spoken word performance. Young people and their adults will explore the interior (now in construction), outfitted with computers, recording equipment, digital turntables, microphones, headsets, mixers, and RC cars. The Xpress is a 21st-century Jesup Wagon. Like the Jesup Wagon, it brings resources, tools, and skill-building to areas disconnected from universities, and it circles back to campuses to integrate practices and ideas from those areas into the academy, shifting the system through Hip Hop.

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