Design Studio as Method: Reparative Archives and Beyond

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Abstract: In her workshop "Time, Memory, and Justice in Marginalized Communities," Rasheedah Phillips proposed, "Oral futures is about speaking into existence what you want to have happen" (Community Futures Lab 2017). Upon the precipice of this moment, where catastrophe and hope intersect in unprecedented fashion, what futures will our digital work speak into existence? And what is at stake if we do not work to shape that future together? This article interrogates the possibilities and challenges of reparative digital archival practices, building on the authors' roundtable at the 2023 Association for Computers and the Humanities (ACH) conference and inviting readers to join through hands-on reflections. Authors layer experiences from academia, libraries, archives, and museums to individually and collectively name disparities and propose alternative practices which address such injustices. For our conversation, we draw on the work of Michelle Caswell, Arturo Escobar, Steven J. Jackson, Jessica Marie Johnson, and Safiya Noble to intentionally invoke a rhizomatic, intersectional understanding of repair. We will incorporate visions of repair as they exist in current scholarship: challenging ownership (Phillips, Nowviskie), revealing what has been long-hidden in datasets (Johnson, Gallon), and reframing failure (Caswell, Collins, Crosby, Jackson). We seek to address questions such as: What does it mean to engage in reparative work, and how do reparative practices become embodied in self and community? How are (digital and material) resources generated and shared? When does repair falter or fail? How might we render visible joys and <u>wounds</u> in service of building infrastructures of joy? And, importantly, is repair possible, and if not, can we imagine together a new guiding principle or tenet? The structure follows ASU's Lincoln Center for Applied Ethics Design Studio model, consisting of three "movements" that first invoke divergent ideas, perspectives, and stories from participants and then trace convergent themes, directions, and aspirational questions about how we shape the future we want to have happen.

Keywords: Archives, reparative archives, design, design thinking

Introductions

This article is a speculative, participatory exercise in design, repair, and generating iterations of insights through collaboration. It is also an adaptation of the Lincoln Center for Applied Ethics Design Studio model; by adapting this model, we seek to understand how we can infuse a community-centered, embodied mode of knowledge production into one of the more traditional formats: the academic article. We invoke the fields of speculative design and fiction here, as well, as methodological and creative tools for envisioning long futures in a way that provokes conversation, surfaces challenges, and addresses the interplay between technology and humanity from a humanistic perspective, as opposed to a market-driven one (Dunne and Raby 2013). Like speculative fiction, we break the rules of academic reality, reflecting on the power of the Design Studio model to create generative moments of futurity, worldbuilding, and connection. We speculate about repair—what it means, whether it is possible, and how it can help change our world—and repair's relationship to technology. To do so, we model the Design Studio method across three key moments: our ruminations on repair; our interactive panel on the same topic at ACH 2023; and our invitation for you, <u>dear reader</u>, to join our conversation.

> We use this modality to surface tensions and joys, particularly those related to technology and innovation, by making space for stories that matter to how we, every day, move through the world. Our lived experiences influence how we see, make, and remake the world. The shape of these Design Studios was already in the workings in 2019, but it wasn't until the onset of the continuing pandemic that we started to work with scholars to challenge the pre-pandemic "normal," to question the rapid adoption of techno-solutionism, and to seek out the joy of connection and co-creation that technology might/could one day afford us.
> —Liz Grumbach, introduction to the Design Studio model,
> during the ACH 2023 panel on "Designing Frameworks
> for DH Reparative Practices"

This article allows us to enter into conversation with those interested in repair, both in reparative archives and in reparative practices for an intensifying moment of fracture and disruption in our understanding of the world. Repair is construed broadly, drawing upon current work with reparative archives, mending movements modeling environmental sustainability, care, and reciprocity models of community building, among others. As we write this article, we are years into the War in Ukraine, months into Israel's continued siege on Gaza, and the resulting humanitarian crises of these conflicts (layered upon others). As we write these words, we are witnessing our colleagues, our

students, and our friends have their free speech suppressed by university administrators and politicians who would rather call the police than consider the demands of the students they pretend to serve. Even as we meditate on how to enact and embody repair in our work, the impossibilities of repair in a world and a university culture that is hostile and violent continue to surface. We are reminded of Matthew Gold and Lauren Klein's (2023) statement that "moments are not metaphors"; these moments that we witness "represent the collective failures of governments and social institutions," and so how do we move forward with hope when repair might not be enough?

We acknowledge the complexities and failures of repair by pulling on multiple definitions and metaphors to imagine what is possible now and to speculate about the future. One pertinent example comes from Ruha Benjamin's *Viral Justice* (2022), which invokes the concept of "virality" as a metaphor for building towards a better world in the wake of the COVID-19 pandemic. Benjamin's framing of virality emphasizes interconnections and interdependence; such interconnectedness crafts moments of tiny reconstructions—small embodied dreams of joy and equity—that forge and distribute new ways of being. Although metaphors cannot embody the challenges within difficult "moments" or our lived experiences, they provide useful frameworks through which we can enact change. This vision of virality reclaims as metaphor the very things causing social, political, and economic upheaval. Thus, we, too, can tap virality to spread the justice-oriented world we want to see. Together with virality, we interrogate here whether repair can be the metaphor that allows for justice and resistance to enter into the digital humanities zeitgeist.

> What if [. . .] we reimagined virality as something we might learn from? What if the virus is not something simply to be feared and eliminated, but a microscopic model of what it could look like to spread justice and joy in small but perceptible ways? Little by little, day by day, starting in our own backyards, let's identify our plots, get to the root cause of what's ailing us, accept our interconnectedness, and finally grow the fuck up.
> —Ruha Benjamin, *Viral Justice* (2022)

What if we (re)imagined repair as something we might learn from? In its virality, repair might look like archives reshaping notions of provenance to include oral legacies of ownership, meaning, and continuity (National Museum of African American History and Culture) or temporary autonomous zones (Bey 1985) or collaborations for soul-infused theater (BIPOC Arts Coalition), small examples among many compelling "hot spots" of potent viral possibilities. Within archives, repair moves beyond reparative description. Beyond infusing community-centered archival management structures, how can we use repair as a metaphor for spreading awareness of the fractures, without calling for their immediate erasure?

Archives are an important site for reflecting on notions of repair. As places both codifying and challenging historical narratives, they embody the tensions of reckoning with our troubled pasts. Archives may house harmful records or leave out important perspectives—shifting the ways in which people and communities understand the cultural record. As J. J. Ghaddar and Michelle Caswell note, "The story of a nation's origin, its history and myths, serve as a vital script for citizenship and guide citizens in understanding who does and does not belong to the nation, and their place in the world. They help people to come to know and experience themselves as part of a nation with a particular population, territory and history" (2019, 75). These stories are often developed, preserved, and upheld by archives—collections of primary sources that form a story about a particular time, place, or group of people. While maintaining records of our history is important, archives also suffer from silences—or gaps in the cultural record—when specific experiences and perspectives are not represented. One prevalent example of an archival silence is Ferdinand of Spain's letter to the Taíno, the Indigenous peoples of Cuba, the Dominican Republic, Jamaica, Haiti, Puerto Rico, the Bahamas, and the northern Lesser Antilles. King Ferdinand's (c. 1500) letter was a proclamation of colonization and conquest, stating, "should you fail to comply [with his decree] . . . we shall use force against you, declaring war upon you from all sides . . . enslave your persons . . . sell you . . . seize your possessions and harm you as much as we can." This letter became part of the cultural record that was used to justify Spain's colonization of the Americas and its genocide of Indigenous peoples.

In contrast, the Taíno's response to Spain's aggression was not codified into the cultural record. What was their response? How did Spain's conquest influence their daily lives? How did they push back against colonialism? For hundreds of years, Spain's narrative was treated as truth, despite numerous rebellions by Indigenous peoples throughout the Americas. This example embodies many of the underlying issues with archival silences—they tend to uphold narratives of power while neglecting the perspectives of the marginalized.

Responding to the archival turn, archival scholarship in the late twentieth and early twenty-first century has emphasized the need for decolonial archives, or "those innumerable and intertwined material and immaterial traces left by anti-colonial figures and decolonial movements in the twentieth century around the globe" (Ghaddar and Caswell 2019, 72). Strategies for doing so include scholarly publications—such as Jalil Sued Badillo's 2008 text *Agüeybaná el bravo: La recuperación de un símbolo*, which details the Taíno rebellion of 1511—as well as the production of community archives; shifts in collection, description, and preservation strategies; and changes to archival training.

This work is often positioned as a form of repair. Lae'l Hughes-Watkins (2018) describes reparative archives: "[a]rchives that are rooted in biases and oppression that

maintain the subjugation of vulnerable communities cannot be transformed, they can never morph into justice-oriented social assets, but can mainstream archives repair their praxis of suppression? Is it conceivable that traditional archives might find a way to help mend the social wounds that have been created by the absence of records documenting lynchings, transgender narratives, the differently abled, police brutality, or black student activism and that have created an ill-formed representation of history?"

Applying notions of virality—that is, Benjamin's invocation of a virus's rapid spread and interconnections as a strategy to collectively grow small acts into widespread justice and joy—to these questions helps us (re)imagine possibilities for moving archives by asking: How can traditional archives become more deeply engaged with and committed to marginalized groups? How do community archives embody practices that might inform and transform the work of traditional archives? How can we develop collection practices that include the perspectives of the disadvantaged, and how do we ensure these practices do not add to or exacerbate existing harms? How can we change ourselves as archivists and allow that change to transform our work?

Frameworks of virality and repair such as these gently curl like tendrils around and through the Design Studio model. Our engagements with the Design Studio model are experiments in connecting in/at/within moments of great tension. Though not originally conceived as such, the Design Studios are also exercises in viral justice, "an approach to social change [that] seeks to nurture alienated species—all the forms of life and living that are cast out and rendered worthless in our current system" (Benjamin 2022). Born from the same COVID-19 moment and encouraging similar justice-based worldbuilding, viral justice provides us with a metaphor for understanding the work of the Design Studios, the relationships fostered within, and the moments of intimacy that reconnect our dreams of what could be with our tools.

The Design Studio model

> We've tried to push back on more dominant framings [of the question of the dangers of Big Tech] in two ways. The first is we've decentered tech itself in favor of a focus on the precious and sometimes precarious aspects of our lives that are being reshaped by tech, but not only by tech. And second, we've centered instead on the experiences each of us has had over this last year and a half (2020–2021), a period, of course, marked out by brokenness but also by discovery and solidarity and mending. The aspiration has been less to imagine designs for a more humane tech, and instead designs for a more humane relationship to the technology we find in our lives.
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> —Gaymon Bennett, adapted from transcripts of the Lincoln Center for Applied Ethics Design Studio on Reparative Archives (2021)

Our stories are never more important than when we have a week like this one, where multiple Supreme Court decisions impact the safety, rights, and livelihoods of ourselves and our loved ones.

—Liz Grumbach, introduction to the Design Studio model, during the ACH 2023 panel on "Designing Frameworks for DH Reparative Practices"

Stories are never more important than when we are faced with rapid technological change and the adoption of AI technologies across the academic and private sectors, when we have historic elections on the horizon that might shape the future of global relations, when we are still under the conditions that make racial and gender discrimination feel desperately close.

—Reflection/refraction of the original Design Studio text above (2024)

We embrace a particular ethos in our Design Studios. We want to hear your voices. As we move through the conversation, pay attention to whether or not there are voices that aren't being heard. Ask questions and pull forward voices. This is an opportunity for you to step out of the role of academic expert and be real. To speak from your experiences of these questions we are asking and the times that we are living in together.

—Gaymon Bennett, opening remarks for the Lincoln Center for Applied Ethics Design Studio on Reparative Archives (2021)

The Lincoln Center for Applied Ethics Design Studio model combines principles of collaboration and design from participatory action research, design justice, and feminist design thinking models to center lived experiences when designing direct and concrete interventions. This model that we engage with today empowers us to challenge notions of expertise, and so we ask you (our participant readers) to root down into the importance of lived experience, community relationships, and intuition. Come to these words as a whole person: hard-won expertise in both our professional and personal lives shapes how we connect and how we will respond to the beauty and horror of the present moment together. Often within academic spaces, we de-emphasize intimacy and interpersonal connections. Yet these very connections hold the seeds of reparative practices.

The Design Studios are a modality in which embodiment, community, and intimacy are expressions of repair. The studios take up embodiment and community as an antithesis to the emptiness of an empathy that Jade E. Davis deconstructs when she states that "[t]he dead and silent of us create an archive for them" (Davis 2023). Empathy without action is empty, and action in the Design Studio model roots down into lived experience while deeply listening to and honoring the voices of all humans in the

room, both those present and those invoked from our shared histories. Even fleeting, these moments of intimacy offer viral potentials for how we bring our whole selves into academic spaces and build community within and external to institutions.

The participants of a Design Studio are the "humans in a room"—all of you reading with us here today are our humans, and we hope you engage in generating insights and co-creating possibilities. To get to that point, we need facilitators, and that will be us (Christina, Purdom, and Liz). Facilitators run the event, holding space for the content, perspectives, and voices of all, crafting moments of possibility—that is, where the action happens. And then are our hosts, the subject area experts who craft a Design Studio experience and help in synthesizing outputs. Hosts are the muses, the provocateurs, the chorus. In this iteration of a Design Studio, in print and asynchronous, our hosts/provocateurs are those we are thinking with, drawing into conversation through citations, as they encourage us to consider new ways of think-ing and being. Together—readers, authors, and sources—we craft an invitation to dream what could be and nurture and release small, viral possibilities of connection and repair.

Together, we will proceed through "movements," lovingly named after the self-contained sections of a musical composition: parts that make a whole and yet are them-selves whole. Like three-part breath, or Dirga Pranayama for those who practice yoga or meditation, we will have three movements within this article: we will first diverge by multiplying possibilities, then converge by identifying patterns, and lastly activate. We invite you to become part of the Design Studio community and journey with us in consideration of how shared moments in time, despite all the brokenness, might be collected and curated as a resource for repairing our collective futures.

Breathe in: Diverge
multiply possibilities and generate ideas and stories quickly
Break out: Converge
take multiplicities and trace connections to surface patterns and themes
Breathe in: Activate
begin the cycle again, or bring insights into the world and experiment with applications

Movement 1

Here, then, are two radically different forces and realities.
On one hand, a fractal world, a centrifugal world, an always-almost-falling-apart world.
On the other, a world in a constant process of fixing and reinvention, reconfiguring and reassembling into new combinations and new possibilities—a topic of both hope

and concern. It is a world of pain and possibility, creativity and destruction, innovation, and the worst excesses of leftover habit and power.

—Steven Jackson, "Rethinking Repair" (2014)

As we enter Movement 1 together, we bring forth an additional metaphor from the US Institute of Peace's Maheera Siddique (2024): "truth is a kaleidoscope." We will be exploring facets of our lived experiences with repair with the acknowledgment that any one perspective is only part of a shifting and interpretive lens through which we observe the world. Our divergent thinking will also use a specific tool, the Humane Tech Oracle Deck, produced by distilling the insights gathered from the first Design Studio cohort in the Lincoln Center for Applied Ethics. This card deck is a tool to imagine possible futures that center—or re-center—humanity amid rapid societal change and technological proliferation. The artistic inspiration for the card deck, which was designed in collaboration with artist Neil Smith, was eco-punk, solar-punk, and hope-punk, or China Miéville's (2015) "hope with teeth," where optimism is targeted rebellion.

In this movement, we ask, **What is repair?** Before you begin reading our divergences, we ask you to join our kaleidoscopic thinking. Click through to our playlist, pause, take a breath, and reflect: How do you encounter repair? Then proceed through the below movement.

Diverge: Our definitions of repair, where we enter

Purdom, **Rest Is Resistance**

Repair, for me, points towards rubble, towards near despair, the broken infrastructures, and practices of harm. The need for repair indicates upheaval, disjunctions, and disenchantment. In many ways, reparative practices are grief practices, memory practices.

As Donna Haraway (2016) paraphrases Ursula Le Guin, it matters what stories we tell other stories with, what ideas we think other ideas with. Archives are sites of time and memory, layered and integral to the components of the stories we recall, the histories we construct, the ideas we think with. It is entangled.

Anthologist Michelle Huang outlines a structure of entanglements based on Ruth Ozeki's work—a phenomenon "by which two particles can coordinate their properties across space and time and behave like a single system" (quoted in Huang 2017, 97; Ozeki 2013, 409). Huang points to the shared principles

governing molecules which also shape human and non-human relations, scales of perception, experience, and ways of being, meaning there is no fixed division between self and other, cause and effect, past and present and future.

There are no fixed borders between "self" and "other," "disaster" and "opportunity," "rest" and "repair"; rather, these designations shift into relationships, networks of interactions and responsibilities. Such small (human) and large (geological) timescales and entanglements highlight a problem of perception, memory, forgetting, disaster, and repair: how to perceive and represent the layered network of connections and effects diffused over generations. As lawyer and community organizer Rasheedah Phillips (Community Futures Lab 2017) suggests, we speak into being possible futures—What then are the possible raw materials of such speaking, such crafting into being?

The editors of the journal Salvage (2017) write, "The infrastructure against social misery has yet to be built." I've been sitting with this sentence for some time now, mulling it, worrying it, putting it aside only to return to it. It feels huge, like a promise, and tiny like the last heartbroken whispers of a fading revolution. Imagining, let alone building, such an infrastructure—one that carves out and defends places of refuge for people, animals, plants—is an exercise in broken world thinking. By "broken world thinking," Steven Jackson (2014) means cultivating a clear view of the "real limits and fragility" of our worlds and a way to consider the work of repair. An infrastructure against social misery is an infrastructure of joy, one that attends to the fragile, that nurtures strange relationships between human and non-human, that fosters refuge and repair, and that is constructed and maintained in a broken world.

Such thinking means to attend to the patchwork layering of memory and experience, or perhaps as cultural anthropologist Anne Allison (2013) suggests, to linger in the dirt as a way to piece together the fragments—and fragmentary nature—of memory. In order to conjure new infrastructures—and stories, relationships, fragments—we must see and describe the lingering traces of a broken system as a way to keep the pieces in the forefront of our minds, to protect those pieces from being swept aside and forgotten. Huge tasks, exhausting tasks. Excavation and imagination require rested and connected individuals. Rest and resistance are key to imagining and cultivating, as archivist T-Kay Sangwand (2018) suggests, expansive, liberatory archival [and human] futures.

Liz, **The Scales of Justice**

Repair is the work that needs to be done to heal, to move forward, to allow the creation of a future that champions values such as connection, abolition, and tending to that which is precious. Repair recalls for me the speculative and hopeful work of writers such as Octavia Butler; community organizers and thought leaders such as Mariame Kaba, Cassandra Shaylor, and adrienne maree brown; and theorists such as Dean Spade, who put repair into practice. Meditating on the Scales of Justice card from the Humane

THE SCALES OF JUSTICE

Tech Oracle Deck surfaced for me the delicate balance between hope for better technological infrastructure and despair over the forces of our institutions. Kaba writes that "hope is a discipline" and "we have to practice it every single day" to ensure that the scales do not tip towards despair (2021, 63).

When I think of repair in the context of archives, I first recall the movement led by those working on Mukurtu. Mukurtu was one of the first digital archive platforms to intentionally infuse the values of privacy, the acknowledgment of cultural difference, and the acceptance of silences in the archive directly into its technical design. And yet the scale is weighted down on one side by the institutionalization of repair. When we allow repair-as-value to enter into the space of institutions—libraries, archives-as-physical-space, governments, economies—we endanger its usefulness as a tool for change. However, if we allow repair to embody futurity, which Laura Harjo tells us is "an action; it's a practice," then we resist the weight of capitalistic, neoliberal interests that seek to place standardization and rapid adoption of new technologies over using collective imagination to build the world we want to live in (2019, 34).

When I first started my journey as a digital humanist over twelve years ago, repair was a synonym for recovery. The work of repair was the maintenance and preservation of legacy projects such as DigitalDonne, the Cervantes project, the World Shakespeare Bibliography, and the Transcendentalism project. These were "legacy" digital projects in that they were encoded on "boutique" web technologies or one-off websites that were encoded with unsupported or outdated programming languages. With a team at Texas A&M University, we "repaired" these digital projects by migrating content, replicating their front-end design, and rebuilding the back-end infrastructure on supported platforms such as WordPress and Drupal. Our intention was to "repair" them by packing up their content and moving it from static, often broken and fractured web pages to platform-based web platforms with an established community of users. And yet, more than ten years later, most of the digital scholarship represented in those projects are now again fractured and inaccessible.

In the context of both legacy projects and digital archive platforms, we should understand repair as an ongoing process that relies on social infrastructure and support, just as much as it is a technical process. I recall here Amy Earhart's (2018) work collaborating in community with historically exploited groups and her assertion that "data are always a part of a community or individual." Whether the data is generated by a digital project team or in/with community partners from outside the academy, repair can only be a tool for change when we find balance between community and technology, collaboration and maintenance.

How, then, do we tip the Scales of Justice towards a repair that is inclusive of all the above? As a concept, repair contains within it a multiplicity of definitions that includes considerations of data ownership, meaningful community-centered collaborations, preservation and sustainability, and an acknowledgment of social inequities. Perhaps by returning again to Benjamin's work in *Viral Justice*, we can locate our repair work as part of our community work: "opposing everyday eugenics requires that we acknowledge and foster a deep-rooted interdependence, not as some cheery platitude but as a guiding ethos for regenerating life on this planet" (2022, 9). While we may not yet be able to tip the Scales of Justice back in favor of our hearts, the tendrils of new growth surround us in the fight for balance, for community, and for "deep-rooted interdependence."

Christina, **The Technocrat, Inner Worlds, and the Vital Force**

Repair is more nuanced and complicated than we often imagine. Although we tend to envision repair as simply fixing something that is broken—like mending a hole in a shirt or rewiring a lamp—these metaphors are inapt because they are too static and they cannot embody the complexity of human needs and emotions. Repair between and among people requires acknowledgment and accountability. It requires all parties to turn towards—not away—from connection. Becky Kennedy (2023) defines repair as "the act of going back to a moment of disconnection. Taking responsibility for your behavior and acknowledging the impact it had on another. And I want to differentiate a repair from an apology, because when an apology often looks to shut a conversation down—'Hey, I'm sorry I yelled. Can we move on now?'—a good repair opens one up[. . . .] When you repair, You get to add in all the elements that were missing in the first place. Safety, connection, coherence, love, goodness."

For me, **safety, connection, coherence, love, and goodness** are guiding principles to doing good work and living a fulfilling life; however, I recognize that I cannot always live out these goals perfectly. Repair acknowledges those failures because it requires that you "mess up or fall short of someone else's expectations" (Kennedy 2023). As I was pondering the role of repair—both in relation to my work in archives and in connection to my embodied self—I drew the following three cards from the Humane Tech Oracle Tech: the technocrat, inner worlds, and the vital force. These three cards offered insight into my own relationship with technology as well as my journey towards understanding repair.

The technocrat embodies a version of the world focused on production and resource acquisition. A world disconnected from human relationships that thrives on capitalist worldviews and the exploitation of the vulnerable. A world full of Silicon Valley types who peddle new technologies for their own financial gain. One example is Brock Pierce—the actor turned technocrat who claimed that his crypto currency community Crypto Rico would "rebuild Puerto Rico [after the devastation wreaked by Hurricane Maria] with money that we saved from the IRS in a Robin Hood fashion" (Strauss

2018). His approach was not to partner with communities in need, but rather to build a cryptocurrency community with other like-minded Silicon Valley types. Their "life-saving" work involves separating Puerto Ricans from their own land and culture. This is not an exaggeration—Pierce and his cronies purchased historical sites and started building a private airport, entities that were not accessible to local community members. People like Brock Pierce lead me to ask, How can the technocrat transform to become more deeply human and community focused? Or, how can we ensure that the harm caused by the technocrat is limited, minimized, or negated entirely? What can we do to survive, subvert, or slow the onslaught of the technocrat's worldview?

In *Mutual Aid*, Dean Spade asserts that "the only thing that keeps those in power in that position is the illusion of our powerlessness. A moment of freedom and con-

nection can undo a lifetime of social conditioning and scatter seeds in a thousand directions" (2020, 143). Much like Ruha Benjamin's notion of virality, Spade's work asks us to make many small changes both within ourselves and in our broader communities. Both of their texts invoke the inner worlds card—shifting our focus to how we can embody transformation and change. At the core of this work is knowing our inner selves. As Brené Brown notes, "[w]e cultivate love when we allow our most vulnerable and powerful selves to be deeply seen and known, and when we honor the spiritual connection that grows from that offering with trust, respect, kindness, and affection" (2021, 187). This reflective work asks, How does looking inward shift our perspective of working with technology or working with others? How does being our full selves shift how we work, communicate, build, design, imagine? How can knowing who we are and how we feel be a form of "data" that guides us forward?

Building praxis from these reflections serves as the vital force—a culmination of the work that sits deeply in community. I feel the truth of this revelation as I am writing, knowing that this piece is far stronger because I am working with my amazing co-authors. I also feel it in my ongoing work with the Archivo de Respuestas Emergencias de Puerto Rico, a collection of disaster response artifacts and oral histories from eight mutual aid organizations, which I will discuss in Movement 2. In both of these instances (and many more) we are a greater force when working together, particularly when we make space for our full selves to participate in our collaborations. Together we can (re)imagine and implement praxis that helps us and the broader
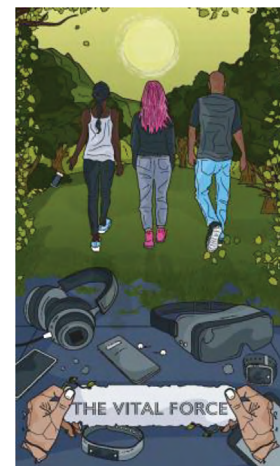
archiving, digital humanities, and academic communities grow in ways that are more deeply human. In doing so, we begin the work of viral justice by "spread[ing] justice and joy in small but perceptible ways" (Benjamin 2022, 11).

Converge: Similarities/conversations with scholars

Our first threads are now emerging. Spaces calling for repair are spaces that hold some form of damage, grief, or erasure. Within archives, excellent work moves to repair processes of description, meaning the very words archivists use to describe collections and researchers leverage to locate collections (e.g., Kohn and McKinnon 2024; Hughes-Watkins 2018; E. A. Olson 2023; Caswell, Punzalan, and Sangwand 2017; Luke and Mizota 2024). Yet erasure and grief are folded into other archival processes. For example, appraisal assigns value, and provenance traces lineage. With these two terms, we invite you to think about what we wish to remember and steward forward. In this moment, we invoke Toni Morrison's *rememory*, to remind us that memory work is the work of the archive, the archivist, and increasingly the digital humanities concerned with the value and lineage of stories and data and is always contextualized in time and space. As we invoke Morrison here, we acknowledge that the work of rememory is rooted and defined by the oppression of and violence enacted on enslaved peoples, and how acknowledging, hearing, and making space for trauma is all part of the memory work that we do.

From appraisal to preservation planning, archival processing requires a series of decisions that encode and reflect particular values, privileges, and power structures. Some decisions about what to be kept go against the community's desire for privacy or restricted access to materials; this is a tension between surveillance and privacy, between visibility and erasure.

Archives bridge memory and speculation against the backdrop of this peculiar moment, where geological and human time intersect in an unprecedented fashion. How do we reckon with stewardship of memory dislodged from place as global warming and capitalism lead to increased war, oppression, and exploitation of some ecologies and peoples for the protection of others?

In reaction to the erasure of certain lives, histories, and memories from the archival record, Saidiya Hartman (2008) employs critical fabulation to recall abeyant as well as never-created but longed-for records that re-embody marginalized accounts and subjugated knowledge through acts of imagination. Repair can be acts of imagination. What records do we create, what tools do we employ in the collection, description, preservation, and dissemination of such records in the wake of archival erasures? What does it mean to make things in humane, empathetic ways? How can we, as librarians,

archivists, digital practitioners, create or repair sustained relationships and practices that are explicitly anti-racist and anti-violent?

Absent or present, fabulation leaves a scar, a trace of absence, a mark of the oscillations of scale/being, of remembering and forgetting, of connected value and disconnected junk, of chance and found objects. Memory—and the encoding of value to such memory—is not totalizing as Morrison reminds us, but always contextualized in time and space, a collective endeavor. By identifying and stewarding forward what we wish to remember, but also marking moments of forgetting, loss, or letting go, we begin to surface what we value, why, and how to embody such values in our relationships and in our appraisal efforts.

Acts of repair require us to wade into the oscillating vortex with a willingness to question and cross established boundaries, to allow for surprising juxtapositions to emerge, and to seek rapprochement with links that have been erased or disconnected, to forge new connections. Sociologist Yoneyama Shoko documents grassroots responses to socio-environmental crises in Japan, specifically Minamata disease (which is a disease caused by exposure to mercury and is one of the largest human and environmental disasters in Japanese history) and the Tōhoku triple disaster. Yoneyama writes that disaster severs "the connectedness that supports life" both in biological and in social spheres (2017, 100). Such a severing breaks time and memory, leaving survivors with a need to repair broken ways of being. Yoneyama traces the breakdown of connections among family, housing, work, food, and local ways of life. The break of relations with nature, ancestors, and descendants is also a break between remembering and forgetting pasts.

Yoneyama explores both the social and biological rebuilding that communities undergo to make sense of the memory of socio-environmental trauma. She draws parallels between the breakdown of social ties to the physical effects of organic mercury, in the case of Minamata disease, and nuclear radiation, from atomic bombs and the radiation exposure from the Fukushima Daiichi power plant as disrupted growth, a severing of "connectedness that is necessary to maintain life, i.e., lost the memory required" to link nervous system to brain, cell information to cellular regeneration (2017, 105). Memory, biological and social, is one of connections or, as Huang (2017) suggests, a searching for erased or damaged links and reconnecting them.

Archives are the institutions we have charged to hold the material records of how we understand and remember reality, history, and society. Within the brick and mortar— or the digital bytes—are human intentions and bias. Visible and invisible judgments abound. Who collects what? For whom? Why? Archival missions dictate the focus and significance of what to collect and what to steward forward as the material "fuel" for future meaning-making. Archives are at once preservation efforts of the past and current displays of power. As such, archives are spaces of incredible joy, discovery, and invention but also of pain, erasure, and exposure. Reparative archival practice identifies

the places of dismissal, racism, and sexism within the archival description of records to alert users to potential harm.

Breaks, scars, wounds—these tender places that call for repair—are not romantic nor easy; they are sites of trauma (a community's records destroyed because an archivist did not see the enduring value, sacred songs exposed to non-initiated, descriptions not reflecting how creators understand themselves or their relationships). Yet these sites are also spaces brimming with healing potential—of connections forged, knowledge shared, and growth occurring. In "The Limits of Utopia," Miéville (2015) writes, "There is hope. But for it to be real, and barbed, and tempered into a weapon, we cannot just default to it. We have to test it, subject it to the strain of appropriate near-despair." He refers to such hope as a "hope with teeth."

As hinted, archives sit at this tension between breaking and fixing. Archivists are tasked with identifying significant records, organizing them, describing them, making them accessible now and—aspirationally—accessible in 50, 100, or even 500 years from now. Borrowing Jackson's (2014) emphasis on broken world thinking, how might the notion of repair, of mending, help us engage in both the always-almost-falling-apart world within the ethos of fixing, reassembling, seeking new possibilities and ways of being? How might we collectively forge new ways of making meaning along human and geological timescales, timescales that reach backwards as much as project forward? What are our strategies? Our tools? Our practices?

Movement 2: "There is never quite enough time"

> Oral Futures is about speaking into existence what you want to have happen.
> —Rasheedah Phillips (2017)

The power embedded within Rasheedah Phillips's words echo, toothy words of hope. What futures do we wish to unfold? How might we forge refuge and care within such futures? Words are the heart of collection and description. Archives have collection priorities, shaping what records an institution seeks out, cares for, and processes. The interesting bits are the fuzzy margins, those surprising juxtapositions and serendipities of records crafted in messy human interactions (rather than neat decades, subject matters, or individual persons). What we collect is visible evidence of our values; how we describe such materials shapes not only our current understanding but our future understandings as well. As Hope Olson (2002) states, there is incredible power in the ability to name.

At the heart of the reparative archives is this engagement with words, to highlight potential harm to users within the very words one might need to use to find the records in the archival catalog as well as the description of what such records entail. The acts of

reparative description are not to change the historical description; that, too, is a record of a particular set of specific humans' understanding in a specific moment and time.

Archivists, and digital humanists participating in archival work, have been seeking methods to repair relationships and build trust with communities whose records, histories, and materials have been extracted, poorly documented and described, and consumed without consent (e.g., Haberstock 2020; Lee 2020; Anderson 2023). Within these movements and efforts, we see scars that are both visible, deeply felt, and sometimes violent. Within the context of repairing relationships, we unearth unequal power hierarchies that are not unfamiliar to us. The work of archives is about not only memory but also how we remember, who has the power to name memories, and who has the power to forget them.

In this movement, we are reinvoking Siddique's metaphor of the kaleidoscope as a symbol for insights that are fragmented and shifting and yet also held together in motion and in stillness. Through the diverge and converge that follows, we invite you to consider new ways of "seeing" repair.

The second movement will include material from the panel's audience participation to explore convergences between perspectives on the practice(s) of repair. Before you begin reading our divergences, we again ask you to join our kaleidoscopic thinking. Click through to our playlist, pause, take a breath, and reflect: **How are practices of repair applied; when/where do they fail; what potential might they have?** Then proceed through the below movement.

Diverge

Liz

>   Can machines ever see my queens as I view them?
>   Can machines ever see our grandmothers as we knew them?
>
>   —Joy Buolamwini, " 'AI, Ain't I A Woman?' " (2023)

Even as we conducted our Design Studio at the ACH 2023 virtual conference, we were deeply aware of the instinct towards and failure of repair. To place our panel discussion in context, the conference was held at the end of June 2023, directly after the US Supreme Court struck down affirmative action for college admissions, during a time when Canadian wildfires were blocking out the US Midwest skies with smoke, and in the middle of the second year of the War in Ukraine. As I recap and meditate on our panel discussion below, we invite you into conversation with us to consider the hopes and failures of repair.

The panel opened with comments from Purdom and I that closely mirror the first two sections of this article: that is, we introduced the Lincoln Center Design Studio

model, and we rooted down into the concept of repair as it intersects with digital humanities. During these introductory comments, we invited attendees to participate in collaborative note-taking via a Google Document that we carefully structured with prompts. Our intention was to open up many modes of engagement with the conversation.

We then heard from Aleia Brown, who linked her work on solidarity economies to reparative practices, specifically those that arose when the promise of repair inherent in civil rights legislation did not reach more remote communities in the southern United States. The collaborative solidarity economies that arose as a result of continued hardship and discrimination in Black communities centered on mutual aid.

You will hear more from her below, but Christina Boyles reported on how disaster response strategies, mostly founded on the principles of mutual aid, could possibly serve as a repair framework in times of crisis. She also posed a question for us: *What does it mean to repair when a "return to normal" would mean a return to colonialism, a return to something that was already inherently broken?* Christina observed, "In times of crisis, repair is not enough, and what is enough should be defined by the communities most marginalized, most at-risk." For archival work, this necessitates a different kind of "return"—not to normal, but instead to the communities that own the materials, the stories, and the lived experiences being represented and abstracted by the archive.

Dédé Tetsubayashi asked us to consider a near possible future when our healthcare systems are run by algorithms. The algorithmic measures already being employed by healthcare providers in the United States are proven to mirror our unequal healthcare system, where access to adequate care is impacted by income, race, and class. She called for us all to work towards a technological solution rooted in radical empathy and intentional curiosity to address the problem of increased algorithmic rule in healthcare.

Below are responses crowdsourced from our ACH 2023 Conference Design Studio that iterate on the insights shared by panelists, as we moved from stories and theory into action as a cohort of scholars interested in enacting repair in our professions and communities. What follows is a brief shared manifesto for repair. It is essential to note that the conversation first turned to a feeling of shared hopelessness and frustration. As always, when considering what is broken in our lives, fears and lived danger surface. The audience shared frustrations at the failure of community seen in the lack of masking in public spaces that even now persists, at technological systems that cause seemingly insurmountable environmental harms, at what is more clear everyday as our governments' failure to protect those most at risk of the impacts of increased police violence, at lack of access to resources, and at the rising cost of living. Yet acts of repair abounded even amid these fears surfacing. Panelists shared resources such as the Design Justice Network, readings of repair and social justice, and maker culture solutions such as a low-cost home air filter.

Audience responses: *How do we start, and where do we start from?*

We start from care, matriarchy, and a willingness to be wrong and embrace vulnerability. We start by mobilizing our communities and collapsing structures of power that only exist to harm us. We start from storytelling, with abolition at the center, and by "moving at the speed of trust" (brown 2017).

Audience responses: *How do we move from our current digital/physical archival infrastructures and towards repair/abolition/justice?*

We move towards repair by building new infrastructure that supports movement and access and also promotes social joy. We commit to mobilize in a way that is proactive, instead of reactive, to emergent events that need archiving, such as <u>SUCHO</u>, <u>Torn Apart/Separados</u>, and <u>MinComp</u>. We experiment with reparative practices by seeking to capture meaningful ephemera beyond the physical (conversation, movement, embodied actions). We seek to build repair into existing archival infrastructure, such as building a new theme for <u>Omeka S</u> that supports languages for anyone seeking to preserve stories, <u>Multilingual</u>. We further prepare for the future by centering post-custodial archives and acknowledging the realities and dangers of issues such as climate change that shape our past, present, and future. We invoke and meditate on concepts such as Tikkun olam, which gives us a practice/praxis for repairing the world without causing harm.

Christina

Storytelling is a fight for the future. That fight is inescapable in a world on fire. The only questions are how the fight and the fire will shape us, and how we will shape the fight and the fire.

—Kelly Hayes and Mariame Kaba, *Let This Radicalize You* (2023)

Whose story is being shared can change the questions we ask and the battles we fight. That is why the <u>Archivo de Respuestas Emergencias de Puerto Rico (AREPR)</u>, or the Emergency Response Archive of Puerto Rico, emphasizes the stories of mutual aid groups and grassroots organizations that were imperative to the survival of Puerto Ricans in the wake of disasters such as Hurricanes Irma and Maria. In the wake of government failure, slow response, and inadequate aid, mutual aid groups—many of which were active prior to the hurricanes—took on the incredible task of filling in the gaps left by the government's failed response. This work was especially needed as recovery efforts were hindered by Puerto Rico's colonized status—made evident by biased media narratives and Trump's paper towel toss as well as by policies such as the Jones Act of 1920 and Act 22 of 2012.

It is difficult to talk about repair in the context of colonization. Repair is often touted as a form of "resilience" or a "return to normal," but these approaches only exacerbate the harm experienced by marginalized groups. This is most evident when

comparing the media and government's response to Hurricanes Irma and Maria to the lived experiences of Puerto Ricans:

> Media outlets lauded Puerto Rican resilience by noting that many communities were entirely self-sufficient in the weeks and months after María. Outlets such as *The New York Times*, *CNN*, and FEMA frequently cited Puerto Rican citizens and officials who promoted resilience as an effective response strategy, establishing resilience as the tellable narrative of post-María life in Puerto Rico (Giusti-Cordero; Gomez Colon; Ortega). Although the innovative and effective communal responses developed by organizations across Puerto Rico are certainly worthy of praise, narratives of resilience obscure the US and Puerto Rican governments' failure to provide Puerto Rican citizens with adequate resources, infrastructure, and support [and continue to justify that failure]. (Boyles 2020)

In Puerto Rico, repair work is largely being done by mutual aid groups who seek to shift notions of the "normal" or "status quo" to ensure a better life for their local communities. Some examples AREPR has had the opportunity to work with include Comedores Sociales de Puerto Rico—a group that runs a low-cost restaurant, distributes free food at protests, operates a community center, and much more. Other groups such as Operation Blessing ensure that local residents have access to and can maintain clean water filters so that people have safe drinking water. In other cases, individuals decide to start their own mutual aid initiatives, such as Leila Silva, who cares for and adopts out dogs that were abandoned during and after Hurricanes Irma and Maria. Their work shows the power of mutual aid, which is both a strategy for helping people to survive their lived conditions and for mobilizing them for resistance. Mutual aid also pushes back on capitalistic thinking by focusing on people and their needs rather than on profit or politics. As such, mutual aid demonstrates how notions of repair can be applied to within communities to improve their living conditions.

What does this look like? Let's dig into the example of Comedores Sociales de Puerto Rico in a bit more detail: Comedores runs a community center that offers many services including food distribution, a food pantry, a community center, free acupuncture, and free youth recreation classes. They also operate a restaurant just outside the University of Puerto Rico's largest campus where students can eat for free. At the same time, they actively resist Puerto Rico's colonial status, participating in marches on the fortaleza (governor's mansion) and providing free food to protestors. This model of transformative change foregrounds the needs of the people of Puerto Rico and ensures that they can survive and thrive even while living under conditions of injustice.

While Comedores has a tremendous impact on the people of Puerto Rico, their work also has been actively resisted by systems of power. Laws such as Act 60 and the

2017 Tax and Job Cuts Act created tax incentives for wealthy non–Puerto Ricans to buy up land and property in Puerto Rico cheaply. Not only did this attract investors such as Brock Pierce (discussed in Movement 1), it also appealed to many investors in the mainland with extra cash on hand. These investors had a direct impact on the work of mutual aid organizations, often displacing residents of their local communities and increasing the precarity of those individuals. In the case of Comedores, investors used Act 60 to claim the rights to their community center—a building that had previously been abandoned for thirty years. The building was sold to a non–Puerto Rican company for $108,000 in 2015. They left the building untouched until they realized it was being used by Comedores, who had made many improvements to the space. Then they tried to charge the organization $360,000 for use of the building. While Comedores has been able to hold on to the center, they were only able to do so through a protracted legal fight that lasted until 2023.

What does this tell us? Meeting the needs of the people and ensuring their survival does not often align with colonial notions of "repair" or a "return to the ways things were before." Colonial notions of "repair" also reinscribe unjust policies and behaviors, leading to ongoing harm. Instead, we need radical repair in the form of mutual aid—an approach that foregrounds people and their needs over structures of power and profit.

Although we may not all work with mutual aid organizations, we can adopt practices of radical repair into our research and scholarship. AREPR does so by (1) embracing post-custodial archiving practices in which participants retain the rights to their contributions; (2) acknowledging the expertise of Puerto Ricans in the areas of disaster and disaster response and highlighting their experiences through oral histories; (3) partnering with community members and community organizations to determine who, what, where, when, and how stories will be shared; (4) making all materials available in both Spanish and English; (5) building a collaborative framework that allows participating community organizations to collect, develop, and share archival materials during and beyond the scope of the project; and (6) refusing a return to normal. While these strategies are specific to AREPR, many of them can be extrapolated to other digital projects, research agendas, and programmatic structures.

We don't all have to do the work of Comedores to make a difference. We can participate in mutual aid in our own communities or even build mutual aid into our research and scholarship. As Kelly Hayes and Mariame Kaba observe, "the most important thing you can do to transform the world is act" (2023, 7).

Purdom

The practices of repair are deeply entwined with questions of care and the economies of attention. We grapple with what we can mend versus what remains irreparably broken as we confront the limits of repair in a world characterized by pain and possibility,

creativity and destruction, innovation and entrenchment. Repair is a reckoning, an armament of hope with the application of micro-practices of peace building, reciprocity, and witnessing.

Practices of repair merge the radically joyful with an engagement in the foundations, or substrate, of a crumbling planet. As Bethany Nowviskie (2014) wrote in her DH2014 keynote, "[D]igital humanities in the anthropocene . . . resting beneath them all, as a kind of substrate—there lies the seriousness of one core problem. The problem is that of extinction—of multiple extinctions; heart-breaking extinctions; boring, quotidian, barely-noticed extinctions—both the absences that echo through centuries, and the disposable erosions of our lossy everyday."

I think about the mollusks and rusticles consuming the Titanic. We want to leave traces, claim space and time, linger over evidence that someone lived here, touched this thing. Yet those traces are still subject to erosion. Dramatic and dull. Engineering brilliance undone by mollusk and time. The efforts to preserve, to study, to remake speaks to an unyielding hope of future audiences. We are worried about the eroding Titanic because some future viewers will not have evidence beyond emulations and/or stories that it ever was.

Ruins, in a strange way, are a kind of striving for a version of immortality. Time, Anne Pringle (2017) observes, influences landscapes, and lichen respond to changing conditions in landscape by sometimes killing the center. Pringle wonders if the death of the center really equates to death at the edges; perhaps, she muses, the edges will continue to grow on. Does this then create new centers? Or do the edges continue without regard or communication from the inner spaces? If there is no ruined Titanic "center," do the stories at the edges continue to thrive?

Ruins, like archives, embody a hope for immortality, a testament to our yearning for future understanding and connection. Reparative practices, then, slip in between the dynamic interplay of growth and decay, raising questions about the continuity of narratives when traditional centers are no longer discernible.

Mukurtu aims "to empower communities to manage, share, narrate, and exchange their digital heritage in culturally relevant and ethically-minded ways" (Center for Digital Scholarship and Curation, n.d.). Within the Mukurtu CMS, repair practices recognize the traumatic modes of collection and memorialization of Indigenous artifacts, often without connection to the community. Two connected themes seem relevant here. The first, some stories, events, objects should not be found. Mukurtu works to deflect aggregators and APIs that would yank objects out of context. The second, not all individuals have the same access and rights to view or access objects or information. It seems the care work needed for repair moves between center and periphery, rights of access and rights of privacy—with attention to flexibility and responsiveness to specific contexts and concerns.

This kind of repair/broken world thinking/mucking about in the substrate of extinction and loss could render a mollusk-sense as one of consuming, restructuring, unmaking and a lichen-sense as one of refusing to repair the center so that the edges have potential to survive. Stretching the slightly off metaphor, lichen-sense could be related to acts of repair that fundamentally change an object, like kintsugi, the Japanese art of pottery repair. The broken object is repaired, with attention to the fractures/repair lines, while mollusk-sense are objects or places that will fall away, becoming noticed (or not) extinctions with little to no trace left behind.

Gracen Brilmyer's (2018) concept of archival assemblages further complements repair practices, exposing the intricate power dynamics and cultural forces that shape record-keeping and archival strategies. This lens invites us to unravel the hidden complexities within archival descriptions and acknowledge diverse audiences' needs and perspectives.

A nuanced understanding of repair encompasses a spectrum—from the transformative acts akin to kintsugi, which honor the scars of repair, to the gradual dissolution akin to mollusks consuming the Titanic's remnants. As Rachel Carson (1951) poetically describes, the relentless accumulation of sediments in the deep sea echoes the inexorable drift of time and material, shaping our perception of repair in a world marked by perpetual change and loss.

Convergence

Our divergences show up as fractals, shifts in perspective as a kaleidoscope moves. Repair practices are not monolithic, nor proscriptive. Rather, possibilities for repair emerge in between and betwixt. Invoking another metaphor, repair is a labyrinth, a maze/path circling towards a center. One can cheat, stepping over the low rock path markers, but the purpose of the labyrinth is the time and attention required to work towards the center. In this way, the specificities of repair are unfurled as one walks the path of repair.

Mid-walk, mid-process, the lived experiences informing and shaping the reparative practices are emergent; only at the center are the practices more clear. Similarly, the process of the Design Studio emphasizes the embodied process of moving from path to center, repeatedly. This can be a messy process.

A few key themes emerge across our divergences. Reparative practices might look like:

- Acknowledging and rectifying archival silences that uphold narratives of power and neglect marginalized perspectives. Repair practices center stories and experiences of

communities historically excluded from mainstream archives, honoring and amplifying a multiplicity of voices.

- Addressing—pragmatically, with skin in the game—historical injustices and social wounds. Reparative archival practices must move beyond mere documentation towards actively mending harms by recovering voices and movements whose records have been obfuscated or ignored and by promoting justice-based practices of access, arrangement, description, access, and preservation in community with record-creators.
- Recognizing the power and opportunities of technology while attending to the inequalities and biases baked into the development and implementation of such tools.
- Repair and justice-oriented archival practices are forged within community collaborations. Repair practices emerge when communities manage and narrate their own histories and set guidelines for privacy.
- Reckoning with our world, marked by environmental degradation and loss, clarifies the relationship between preservation (of cultural heritage, of memory) and resilience (of ecosystems, of communities).

For us, repair extends beyond a physical restoration, which often is simply not possible, to embrace a broader movement towards justice.

Movement 3

> Repair is about space and function—the extension or safeguarding of capabilities in danger of decay. But it is also an inescapably timely phenomenon, bridging past and future in distinctive and sometimes surprising ways. Repair inherits an old and layered world, making history but not in the circumstances of its choosing. It accounts for the durability of the old, but also the appearance of the new.
>
> —Steven Jackson, "Rethinking Repair" (2014)

We gesture towards the incredible timescales to which archivists aspire, and enveloped within are questions of access. Access indicates findability and accessibility: Can one find the records, understand them, use or manipulate them—and under which conditions? Who can get inside the building? How are things digitized (and how do you know what is missing)?

Access is also about what is shared and what is withheld. We have journeyed together, considering access to opportunities, to worlds and situations which may have shut us out in a different set of circumstances. We have considered how we fit—and

mis-fit—the world, our tech, our social institutions, and the norms we swim within. To draw again on Jackson, access is "pain and possibility, creativity and destruction, innovation, and the worst excesses of leftover habit and power" (2014, 222). And archivists work to think about these entangled issues of access now and along those forward and backward trajectory-timescales mentioned previously.

Access traditionally means subject headings, path-finders, digitization efforts . . . and occasionally, transcription, time-alignment between text and media, ramps for buildings. Access also means introducing new researchers to the processes of the archive—you may need to show ID, you may have to adjust how you hold the records because gloves are often required, food and beverages are not welcome near the records, and on and on.

Repair, in the context of access, is about making more pathways, points of entry—into the collective effort to remember, to surface value (even, perhaps especially when such value is different from our own), and to collaboratively describe in concert with those who create or care for records. Repairing access is both about making things visible, usable *and* about protecting, embargoing, or holding some records in enclave. As Kim Christen (2012) argues, not all information needs to be free; some must be protected because it is sacred, because it exposes particular communities to surveillance or harm. Repair asks: How are these records carried forward and by whom?

Speculation and desire are acts of repair. In order to call forward Hartman's (2008) critical fabulogy or Morrison's intertwined contexts of time and place (rememory), we need to be able to draw in a breath and, as Phillips (Community Futures Lab 2017) urges, speak—or draw or dance or make—into being what we wish to happen. Repair, both in digital humanities and in our social relationships, is a skill meant to be honed in community, one that leaves traces of the mending, places that may remain tender for eons but also grow stronger.

Kintsugi does not hide the broken places, nor does it celebrate them with empty hope or nostalgia; instead, kintsugi is reforging, remaking into something at once old and new. Repair is the embodiment of a hope with teeth—a reclaiming of skills to understand how something is put together so we might take it apart and reconstruct it differently, to "test it, subject it to the strain of appropriate near-despair" so we can strengthen it to better hold our desired futures (Miéville 2015).

So what, then, do we speak into existence as we stand in the eddies of "appropriate near-despair"? We reach for speculative exercises to draw down and activate beautiful questions, "how might we" questions. These questions define the places we might begin, act within, and cultivate new paths forward. Here, in Movement 3, is where we stand and notice what is around us (i.e., fragments, people we think with, points of entry). What possibilities and practices do we nudge towards virality, and in the nudge, how might we proceed together?

Diverge

The third movement of our Design Studio invites each of us to generate *How might we . . .* questions. Such questions may not have immediate or even realizable answers; yet these questions are viral possibilities—sparks of *what might be*, tendrils of imagination, color fractals of connections within the kaleidoscope. We would like to thank our anonymous reviewer for offering the metaphor of a song, initially sung in rounds with each individual voice converging into a shared choral harmony. In this diverge, we invite you to add your voice and unique *How might we . . .* questions.

Click through to our <u>playlist</u>, pause, take a breath, and reflect: **What are the beautiful, challenging, adjacent possibilities of repair? How might we . . .?** Then proceed through the below movement.

How Might We . . .

Christina: *How can knowing who we are and how we feel be a form of "data" that guides us forward as we seek to do repair work?*

Although this question might look like it is invoking the "quantified self," my intention is the opposite. Rather than treating ourselves as disembodied pieces of data, my question seeks to re-engage scholars, practitioners, and community members with their inner selves, or what Purdom describes as "habits (of self, of mind), inherited stories, and something achingly sacred and eternal." In academic or professional spaces, we often make decisions or form networks based on performance—our performance of expertise or someone else's. By being more connected to our inner selves, I hope we can transform the way we make these decisions so that they take into consideration our values, our needs, our curiosities, our joy, and our lived experience. Doing so makes it possible to form deeper and more meaningful connections within and beyond our professional roles—and invites new possibilities for (re)imagining our futures.

Liz: *How might we create social and technical infrastructures for digital humanities projects that invoke the principles of repair?*

Rapid response DH projects are already infused with reparative practices, as they interrogate the social, economic, and political conditions that caused the very failure of infrastructure that necessitated the intervention. We must carry forward those value-based practices into all of the archival and digital work that we undertake, and we must also carry forward the very painful memories of failure. DH has a (sometimes) healthy relationship to failure and obsolescence. To our institutions, however, that increasingly push us to adopt technological solutions to problems caused by systemic and often violent injustices, a consideration of failure can be perceived as an unproductive pause at best, or a stoppage that is antithetical to the rushing forces of competition that feeds the pace of extractive capitalism.

But we need the pause, the breath, before proceeding to build additional infrastructure that might not serve us. Turning back to rapid response projects: these

teams mobilize quickly and yet also listen to the lived experiences of those most in need of preserving their histories and artifacts. We must reject the mandates of winner-takes-all capitalism that drives our institutions to make decisions against sustaining the work of our colleagues. So, how do we invoke and invite repair into our digital infrastructure? By adopting open source platforms that are supported by communities, with the acknowledgment that these technologies could be intercepted by neoliberal forces that seek to push a "product" (as we've seen with Drupal), or by using and encouraging the adoption of static site platforms that promise long-term sustainability and adaptability (CollectionBuilder, Jekyll).

Purdom: *How might we surface the substrates of loss and environmental degradation in our reparative practices?*

I've recently lost several mentors and close family, so grief is near the surface. I don't always know how I feel . . . well, that's not fully true for the easy emotions—but the smaller ones, the more subtle mourning for "things that never were but should have been," are harder to identify. And in most social situations, it isn't done to lead with "I'm feeling some things." Yet repair, to me, is often intertwined with loss and honoring these absences—personal, artifacts, ecosystems.

Christina: *How can the lived experiences of our community inform our strategies, methods, and approaches to repair work?*

Working with mutual aid organizations across Puerto Rico has shown me how deeply necessary it is to apply the lived experiences of community to our work. My partners in AREPR have offered insights that have shifted our work—both for the project and for community archiving more broadly. Their feedback has led to changes in our project name, our metadata collection practices, our use of customized vocabularies, and our design of software—including an <u>Omeka S theme</u> and series of plug-ins that are optimized for use across languages (Transcript, SimplePDF, PageBlocks, Robots, GroupEdit). In other words, *the project exists and is because of our community partners*, and it is their work that both saves lives and informs better community and scholarly praxis.

Liz: *How might we take up the metaphor of repair as an act of doing?*

If virality gives us a metaphor for the spread of justice, then repair can be for us a metaphor for the spread of more just archival practices. How do we break open our traditional modes of thinking of repair as recovery, sustainability, or maintenance? Or, better yet, how do we infuse those actions of doing—the actions of digital archiving and digital humanities—with equity, abolition, and care at the center? Perhaps we look first to digital projects that work to infuse the values of equity, abolition, and care into their work. To name only a few projects among many, there are projects that work to make texts from diverse communities accessible, such as <u>the Orlando project</u> (Cambridge University Press), the <u>Lesbian and Gay Liberation in Canada</u> (LGLC) project, and the work of scholars involved in the <u>Responsible Datasets in Context</u> project. There are also project directors and teams that intentionally infuse care into their daily practices with <u>Codes of Conduct</u> (Wisnicki 2015) and <u>Harm Reduction Guides</u> (Digital Transfer Archive 2023). Elsewhere

I have written, with Sarah Potvin and Spencer Keralis (2024), that attending to and caring for living bodies, or the social infrastructure that makes archives possible, brings us closer to collective liberation. Julietta Singh reminds us that "our bodies and minds are less discrete than we have been led to believe," and the (body) archive must resist Eurocentric definitions of selfhood (2018, 31). Perhaps committing to expansive definitions of selfhood, a selfhood that is in relationship to community, is the first step towards repair-as-action. Perhaps we look to moments of care and liberation to make "repair" into an active verb that can hold within it the possibility of change, instead of a passive ideal that is well defined but powerless in its fixedness.

Purdom: *How might we cultivate a shared sense of optimism and/or hope that moves beyond "thoughts and prayers" to something toothy, active?*

I'm extremely fond of China Miéville and Rosie Warren's provocation, "*The infrastructure against social misery has yet to be built*," in part because this challenges us to consider what infrastructures of social joy look like. We encounter infrastructures of misery regularly, but how then do we infect them, render them inert, and construct something new, something loving?

Purdom: *How might we reclaim enchantment and wonder as "raw materials" for repair?*

The opening lines of RM's collaboration with Erykah Badu in "Yun" translate as "[a]ccording to Plato's humanity, it's the human essence to seek truth, goodness, and beauty. It's the sincerity in truth, the moral goodness, and the beauty. But in my opinion, you have it all when you have the truth."

It's a song honoring the Korean artist Yun Hyong-keun (윤형근; Ocula, n.d.), but it is also about love, power, resistance, striving to make a path where others either don't see or don't wish to see. It is about looking for something close to truth in oneself rather than drawing on external circumstances. Internal seeking and reclaiming of truth can be fuel for enchantment. Internal knowing is wonder, much like the beautiful paradox Buddhist teacher Sebene Selassie (2023) outlines as "we are not separate *and* we are not the same."

To return to the card Rest Is Resistance, we have to get quiet, to pause and retreat from external noise in order to draw out that which is most sacred within us. To me, this is the path towards re-enchantment, towards holding the "raw materials of repair"—meaning ourselves, our ties and commitments to one another.

Converge

Repair does not mean rejecting newness or innovation; rather, it is a call to lean into the creativity and skills to reforge, remake, redesign what we use, what we create, and what we leave as traces of legacy. Reparative archives are speculative archives—assertions of what we wish to be as humans, as beings in an entangled and interconnected world. Repair is how we begin to remember and how we lay to rest things we need to put down, not forget per se, but to no longer carry. Repair is arming hope, to resist romanticizing

the past and future, to dig into the present with its myriad daily losses and moments of sweetness, intimacy, connection. It is to notice, to name the value and context, to share forward mended futures.

Invitation to activation

Strung between speculation and memory, grief and love, we want to hold a space for reflection. Within an in-person Design Studio, our host offers a few concluding observations and opens space for participants to share thoughts on the arc of all three movements. Here, rather than returning to the hosts (the authors we cite and think with), we invoke the Valkyrie, who is and isn't our provocateur, our mentor, our friend, Gaymon Bennet. Gaymon shaped the Lincoln Center Design Studio model in which we participated (Christina, Purdom) and facilitated (Liz), and he had a tremendous impact on us—both as members of an academic cohort and as people touched by his care and compassion. Although he passed away in early 2024, his insights and questions will continue to resonate within us: "What does it mean to be humans together at a time in which tech is shaping more and more of who we are, even in ways we don't feel?" (Gilger 2023).

As we bring our time together here to a close, and reflect on notions of repair, tech, and community—particularly a community first convened by Gaymon—we return to the Humane Tech Oracle Deck, the cards that inspired Movement 1's reflections on repair. Embedded in the deck is the Valkyrie, a card loosely inspired by Gaymon, a professor known for riding his skateboard across Arizona State University's campus. Liz, who worked most closely with Gaymon, describes this card as follows:

"This is Gaymon. Looking at the Valkyrie, I felt a deep and overflowing well of gratitude for the lessons he taught me: the journey (modality) is just as important as the destination (product); moving forward towards emergent knowledge and innovation is powered by being with(in) the flow of life; and, if we tap into our inner strength and live our values, we will build the ethical, just, beautiful world we want to see. The figure of the Valkyrie—this card that will forever recall Gaymon's presence for me—holds in their hands the tools for growth, for leadership, and for hope. I will always be guided by Gaymon's faith in hope. I will always hear his call to 'attend to the possible.' I will always hold firm his promise to listen deeply to others, always."

Liz's words are not a eulogy but rather the act of breathing in, holding, and slowly releasing: a beautiful question engaged and offered back out to the reader. Building upon Gaymon's work, we hope this piece has emphasized the potentials of noticing and honoring small moments of things that are precious, things that are intimate. By invoking speculative design, speculative fiction, and prioritization of humanistic

perspectives over market-driven ones, we endeavor to provoke dialogue around repair and technology's interplay. We do so through the Design Studio model, which not only inspires our engagement and the structure of this piece but also urges our contemplation of the possibilities and limitations of repair amid societal fracture and technological disruption.

Recognizing that there is no perfect version of repair, but merely moments of repair in unique contexts, communities, and moments in time, we utilize metaphors to reimagine how and why we are connected, to embrace our possibilities for transformative change. Our central metaphor—virality—thus becomes a method for spreading justice and joy, akin to the collective endeavor to reshape archives and narratives in pursuit of decolonization and social equity. Reparative practices, in archives and otherwise, highlight the imperative to transform biased and oppressive systems into justice-oriented social endeavors. Moreover, repair work underscores the necessity of centering marginalized voices, challenging dominant historical narratives, and fostering community-driven archival practices that actively contribute to healing societal wounds.

Embodiment, community, and intimacy are integral, yet difficult, components of reparative practices within academic spaces and publications. Through the Design Studio modality, how might we—collectively and uniquely—envision and nurture a future rooted in connection, mutual aid, and intimacy? How might you take what we have shared here and turn it into opportunities for direct action, mutual aid, and/or reparative work? We invite you to imagine, to question, and to redefine the relationships between technology, society, and humanity through an embrace of holistic approaches to repair, transcending physical restoration to encompass broader endeavors towards justice, equity, and collective transformation. Let's begin. Select a card from the Humane Tech Oracle Deck and start embracing the Design Studio ethos in your own life.

Author Biography

Purdom Lindblad is currently core faculty with Georgetown University's Engaged and Public Humanities Master's Program. With a rich background in information science and project management for digital cultural heritage, Purdom brings a unique perspective to her research. Her current interests lie in climate change and culturally sensitive approaches to archives & cultural heritage. Purdom Lindblad has over a decade of experience in program management, particularly within complex technical research projects spanning humanities, social sciences, and health sciences. Previously, Purdom has contributed significantly to various initiatives, including the creation of the African

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Christina Boyles is an Associate Professor of Information and Library Sciences in the Luddy School at Indiana University Bloomington. Her research explores the relationship between critical archival and data studies, community-centered praxis, and social justice. She currently directs projects funded by the Mellon Foundation and the National Endowment for the Humanities, including the Archivo de Respuestas Emergencias de Puerto Rico, or the Emergency Response Archive of Puerto Rico, a digital humanities project that works with community organizations to collect and preserve oral histories and artifacts pertaining to disaster. The project is available at arepr.org.

Liz Grumbach is the Director of Digital Humanities and Research for the Lincoln Center for Applied Ethics, an organization committed to exploring co-creative and participatory strategies for ethical technological innovation, at Arizona State University. She is the Co-Vice President/President-Elect for the Association for Computers and the Humanities (ACH). Her current research and scholarly goals include investigating critical methodologies for sharing cultural data, digital public humanities, and the formation of feminist, anti-racist digital commons and cooperatives that actively engage with questions of labor and social justice. Her work has been published in scholarly publications such as *Digital Humanities Quarterly, Scholarly Research and Communication, Digital Scholarship in the Humanities,* and the *Journal on Computing and Cultural Heritage*.

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