

Mess and Making Matters in Feminist Teaching

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Abstract

How do materials and making come to matter in the messy practices of feminist teaching? This Lab Meeting shares examples of interdisciplinary work in feminist making and teaching across a range of contexts (AI portraiture, printmaking, quilting, musical performance, game design, theater, storytelling, and more) to extend the discussion of materials in feminist thought, a topic of long-standing importance in the field. As a group of theorist-practitioners, the contributors to the Lab Meeting share an interest in bridging the conceptual and material via a scrappy mode of making and inquiry that does not seek to remediate chaos but rather engage it, in all its complexities. Each contributor captures multiple interpretations of mess, making, storytelling, and education from a feminist perspective. Together, they offer insights into the liberatory promise of material engagements.

Keywords

Materials, feminist teaching, interdisciplinary art and design practices, mess, scraps, storytelling, social justice

This lab meeting brings together reflections from scholars, artists, and designers who work as educators across a wide range of contexts from pre-kindergarten to higher education. Areas of practice also span a wide range, both digital and non-digital, including printmaking, singing/songwriting, game design, theater, and storytelling. It is significant that these conversations on intersections of feminist thought and matters emerged during the global disruption of the coronavirus pandemic, which brought issues of materiality to the fore in unexpected ways, from the value of toilet paper to the ways in which face masks suddenly materialized (or did not, in some contexts), as well as in ways more directly related to practices of art and education such as scarcity of materials or difficulty of hands-on collaboration in mediated/remote education. While the mattering of materials is a long-standing concern of feminist thought—ranging from new material feminisms (Alaimo and Hekman 2008) to object-oriented feminisms (Behar 2016), the contributions collected here provide a rich set of examples in action of how matter comes to matter in practices of feminist research, teaching, and artistic work, demonstrating the ways in which it takes hand, brain, and heart (Rose 1983) to make feminist science and to educate feminist thinkers and scientists, too. In addition, our engagement with materials comes from a place grounded in our material practices as theorist-practitioners of design that foregrounds the classroom as a space of potential for the application of feminist mattering to a range of pedagogical issues and contexts.

The pandemic brought to the fore and accentuated *what eludes capture* (Love 2016): the mess that is otherwise concealed behind simple theories, finished products, and seemingly neat and polished methods. The chaos and clutter in collapsing of binaries and boundaries of home and work, private and public, process and product was made ever more clear, evidenced by scraps that emerged and were pressed into other forms (scraps of fabric made into face masks; scraps of time that evidenced the messy merging of home and work; scraps of information, both true and false, that circulated as the pandemic unfolded). Scraps have a multivalent nature that renders them flexible—trash to one person; material for use to another. Scraps can fall into cracks, get lost, or, be found again. Gathering scraps can reveal cracks and fissures that were invisible before. Scraps can be intentionally hidden, tucked into a pocket or notebook, preserving a piece of something precious, becoming portable. Scraps of paper can carry something as precious as Audre Lorde’s poetry, as she incisively captures in her mediation on the relationship of materials and social justice:

Of all the art forms, poetry is the most economical. It is the one which is the most secret, which requires the least physical labor, the least material, and the one which can be done between shifts, in the hospital pantry, on the subway, and on scraps of surplus paper. [...] A room of one’s own may be a necessity for writing prose, but so are reams of paper, a typewriter, and plenty of time. The actual requirements to produce the visual arts also help determine, along class lines, whose art is whose. In this day of inflated prices for material, who are our sculptors, our painters, our photographers? (Lorde 2012, 116)

The character of the making practices shared here are also in this spirit. We see a theme in the contributions collected here not only of scraps themselves (Anne Sullivan’s quilt scraps, Sanaz Haghani’s handmade paper, Sharon Clark’s scraps of straw made into dolls, etc.) but also in the scrappy approach to making that each contributor embodies in her own way, making use of what is at hand to make her voice heard, even in the face of the technological scrap or glitch, as discussed by Diana Alvarez. We, in turn, gather the scraps of each contribution together into this Lab Meeting, to ask of the collective, what can we make of the mess both literally and figuratively?

In this collection we share examples and insights in response to the above question initially presented a symposium titled “Material Feminisms in the Making: Of Messiness and Social Justice in the Practices of Art, Design, and Social Justice Education,” held as part of the Ethics and Technological Futures series at the Georgia Institute of Technology in the spring of 2021. Specifically, our participants were invited to a conversation centered on entanglements of mess and order, voice and silence, making and experiencing. Our provocations included the following questions:

- Can you share how a desire to advance social justice comes through in your practice, and more specifically in your choices of material?
- How do you envision the crossings of material practices, critique, and collective social action?
- How do you see the relation between things in the making and made things in advancing social justice?

After the event, each participant developed further what was shared in our initial conversation as reflected in the following sections. Themes that run through all contributions are that of storytelling and making something of digital and material scraps.

Each contribution also captures multiple interpretations of mess, making, and education from a feminist perspective, and provides insights into ways in which materiality has liberatory potentials for inviting us and others to bring our whole selves, or more of our selves, into relation with one another.

Diana Alvarez opens our Lab Meeting by elaborating on her multisensory performance of an original song at our initial meeting. Through the live performance of her original song "Ser Artista," her melody and words encouraged the audience to connect to our bodies, voices, and lived experiences as she shared her own. Lyrics in the song captured the interconnection of thought, materiality, and action for liberation: "To be an artist is to make food out of words." Reflecting on the technical glitches that interrupted her performance at our meeting, Diana reminds us, "Our thoughts, creations, and histories arrive in scraps, glitches, hauntings, and reverberations across time and space." This interaction is "messy," and does not adhere to the mythological chronology or linearity of Eurocentric knowledge traditions. It is, rather, an invitation into the relational in-between spaces of storytelling and listening and their transformative possibilities. Through both her words and performance, Diana powerfully demonstrates the potentials of a pedagogy expanded beyond Eurocentrism, instead rooted in Xicana queer feminist art traditions.

Like Diana's contribution, Sanaz Haghani's work is also a calling-out and a calling-in to others. She describes her art as a "shout" intended to disrupt oppressive silencing of women, materialized through the visual instead of sound. Sanaz reflects on the internalized oppressive silence, and the powers of materiality to convey this complex push-and-pull within the self, both toward and away from self-liberation. Creating her paper sculptures handprinted with abstract images of women in veil, Sanaz incorporates personal, intimate materials such as fabric and other fibers, to "convey both being and not being seen." Many layers of meaning mark her work foregrounding the mess in telling and withholding, veiling and revealing. There is always more to know if you take time to become intimate, to

learn the language, to hear the next story. A perspective centered in active listening and inquiry that Sanaz offers is a counterpoint to the “subconscious silence” she identifies in her own pasts and presents and those of her students.

Anne Sullivan, like Sanaz Haghani, reflects on being silenced and overlooked. Her art captures and expresses the anger that builds up from such experiences. Using her computationally informed quilt-making practice, Anne discusses “Fuck This!” an elaborately hand-pieced self-portraiture quilt that materializes her anger and her resilience. The quilt is framed in part as a response to mess (the mess of misogyny, the mess of the Trump presidency) but also as a mess generator (the mess of thread, paper, and fabric in the making process). She recognizes quilt-making itself a mess of an idea and practice more generally—for example, in the ways in which modern quilting is entangled with cultural appropriation and the shortcomings (but also potentials) of contemporary craftivism. In response, she asks, “What are some ways that crafts and craftivism might move beyond mere awareness of issues, and begin to affect real change?” This is a powerful question to consider not only for the use of craft but other expressive forms in the educational context, especially as we shift away from transactional pedagogy models to move toward transformation both in our students and ourselves.

Sharon Clark’s professional theater practice too engages questions of voicing and silencing in all its messiness. Her feminist immersive theater company, *Raucous*, focuses on telling stories of women who overcome oppressive others and environments. Her theatrical creations foreground the messy interplays of process and product, performer and audience by inviting the audience directly into the storytelling space through innovative uses of digital technologies and reclaiming spaces by making theater in forgotten spaces like Victorian tunnels under train stations, in abandoned Edwardian swimming pools, in old warehouses, and factories. Her choice of disused and forgotten spaces as venues for her performances is also deliberate, drawing attention to and rehabilitating them in process. And while this rehabilitation process may sometimes involve cleaning up, it is also messy and unpredictable as in one production involved the incorporation of actual grass grown in sod laid in an unlit, underground railway tunnel or another where audiences reacted to the movement of digital dolls they were given as part of the performance by throwing them to the walls. Sharon’s work foregrounds the disused, ruined, and even literal dirt as materials for feminist storytelling.

Whereas Sharon’s work is partly engaged in restorative history, Nettrice Gaskins’s work focuses on crafting the stories of possible futures. Also working at the intersection of digital and physical materials, Nettrice has developed the concept of “techno-vernacular creativity,” which she describes as “tap[ping] into the natural DIY inclinations of creative people as well as the educational power of inventing or making things using technology.” Using AI in combination with

photographic images or film stills, Nettrice creates digital portraits that center and celebrate Black culture in all its beauty and complexity. Building on the nuances in the interplay of the character of the subject, aesthetics of the image, and means of production, Nettrice's work is evocative of a new understanding of the future of art and the role of AI in questioning dominant values in culture. By framing creative processes that are entangled with the technological through the lens of the vernacular, Nettrice invites an ever-expansive understanding of who is considered an artist and what is understood as a work of art.

In our section together, Rebecca Rouse and Nassim Parvin discuss our collaborative project, *Feminist Philosophical Toys*, a paper-based series of seven DIY artifacts (a book, set of cards, paper-cut work, volvelle, accordion fold pamphlet, fortune teller, and folio or zine) that are intended to help students engage both playfully and substantially with key concepts in feminist philosophy. Our use of paper as technology for enabling the creation of complex movable and interactive structures is intended to lower the barrier to participation using a material that is cheap, available, and familiar to most. The flexibility of the paper material invites creativity and mess making, allowing students to engage in deeper ways outside the drive to perfection that other materials, including the digital, can demand. The dialogic interaction with paper, with theory, and with others is meant as a practice of live theorization, making philosophy grounded and accessible while at the same time pushing against fetishization of matter.

Erin Mergil and Jessa Pelizari's essay engages explicitly with pedagogy in their work as Montessori primary school educators and administrators, working with three- to five-year-old students. In doing so, they draw us back to key fundamentals of feminist perspectives and practices in education implicit in the preceding sections, reminding us that, as educators, "it is our work not to insert ourselves into the development of our students, but rather to provide them with the means to unfold into their most authentic selves." Erin and Jessa also discuss the importance of thoughtfully preparing the educational environment, the creation of a sensorial curriculum, the practice of oral storytelling, and the power of welcoming the whole person into learning. We can see an interesting resonance across Erin and Jessa's work with very young learners and the experience of adult learners, such as the doctoral students who provide reflections in the concluding section.

In the concluding piece, three doctoral researchers, Aditya Anupam, Pooja Casula, and Shubhangi Gupta, who were involved in the coordination of the spring 2021 event, offer their reflections by thinking back to their past educational experiences, and also thinking ahead toward their vision of what they might do as future educators. They open up generative future avenues for developing the conversation still further. Together, bridging these educational contexts, levels,

materialities, and approaches offer inspiring illustrations of radical feminist pedagogies and artistic practices and the future worlds they can generate.

Quiero Volver: A Xicanx Ritual Opera for Queer and Trans Artists of Color

Diana Alvarez

At the symposium in March, I opened my provocation with a “gesture of the body”¹—a performance of an original song called “Ser Artista,” from my multimedia show *Quiero Volver: A Xicanx Ritual Opera for Queer and Trans Artists of Color*. I often begin workshops and scholarly talks with a song to remind listeners (and myself) that our collective knowledge is made possible through our bodies. Connecting to breath, movement, sound, song, emotion, and spirit is a part of my/our knowledge-making process. Of course, most of my song was cut apart into digital scraps in the recording of our talk, as is unfortunately common in virtual sessions because our internet connection was unstable. What an appropriate reminder of human nonlinearity. We desire to share our embodied knowledge with one another, and this knowledge is shared across unpredictable technological and artistic mediums. The stories and songs that our bodies share are always subject to what may be physically, emotionally, spiritually, and digitally processed at any given moment. Our thoughts, creations, and histories arrive in scraps, glitches, hauntings, and reverberations across time and space. We are co-creators of all stories and songs that we receive, as we process them through our individually shaped, dis/abled, racialized, gendered, politicized bodies of differing experiences. This transmission of knowledge is considered “messy,” and does not adhere to the mythological chronology or linearity of Eurocentric knowledge traditions.

In listening to the fellow artists and scholars who participated in our Material Feminisms in the Making symposium, a familiar question arose for me, which connected all our contributions: What do we do when our lineage lines are broken? This is a primary concern in my creative and scholarly work, and especially of my multimedia show *Quiero Volver: A Xicanx Ritual Opera for Queer and Trans Artists of Color*. *Quiero Volver* is a living performance altar for queer, nonbinary, and trans artists of color to convene and manifest futures. This work, which was the sister project to my doctoral dissertation, features my original songs, poetry-script for ensemble performance, and documentary video portraits of artists from my series *BridgeSong Series*. Those who witness this performance are invited into an in-between nepantla state of queer ritual healing, led by an ensemble of intergenerational artist guides: Altar Builder, Agua Fuerte, Flor Divinx, Curanderx, La Llorona, and Doctora Xingona. Each guide offers queer blessings and multisensory meditations on death/loss, nourishment, resistance, birthing voice, and building chosen family. *Quiero Volver* is a gathering ritual in

which the stage (or screen) is a living altar in the Xicana feminist artist tradition that underscores the politics of attention. The performance/convening is descended from such queer icons as Gloria Anzaldúa, Cherríe Moraga, and Audre Lorde, and applies their visions for co-liberation and coalitional healing to our present and future.

Quiero Volver came into being as an umbrella project for holding my expansive ways of creating in the world—my music, my poems, my sonic meditations (influenced by my mentor Pauline Oliveros), and my documentary work of queer and trans artists of color. I produced *Quiero Volver* first at Holyoke Community College (Massachusetts) in 2017 and then at the Academy of Music Theatre in Northampton, Massachusetts, in 2018, where the performance raised over \$10,000 to support immigrant justice initiatives. In 2020 the performance was awarded a grant from the New England Foundation for the Arts. It feels urgent to stage this ritual performance once again to address the grief and loss of our current time in the COVID-19 pandemic. I am currently exploring virtual and in-person venues to convene artists for this performance once again.

Three sibling projects contribute to the *Quiero Volver* universe: *Ser Artista*, my debut album project, *BridgeSong Series*, and the BridgeSong Fund. *Ser Artista* features my original songs from *Quiero Volver* and was produced by Grammy-nominated singer-songwriter and multi-instrumentalist Seth Glier. Through deep listening, attentive conversation, and adept musicianship, Seth held and realized my extraterrestrial, otherworldly, Xicanx vision for this collection of songs. The resulting album has inevitably expanded and transformed my original vision for *Quiero Volver*. My subsequent revisions of the poem-script for *Quiero Volver* have been influenced by listening to my own music produced by Seth.

BridgeSong Series began as a small collection of documentary portraits of women, nonbinary, and genderqueer artists of color that I compiled for my doctoral dissertation, and which became a part of *Quiero Volver*. During the pandemic, I re-envisioned this project to be a virtual convening (via livestream) for queer and trans artists of color to discuss their work and share resources and community. In my original documentary portraits of artists in *Quiero Volver*, I profiled artists individually, and though artists were able to witness one another in the final performance, they did not have any interaction with one another prior to attending the show. Since I have been forced to think of *BridgeSong Series* as a virtual convening during the pandemic, it became clear that artists from across the world would have the opportunity to convene to be a part of the opera as performers or as interviewees. The possibilities for building community through the rituals of *Quiero Volver* have expanded.

Finally, BridgeSong Fund is an emergency grant program for women, nonbinary, trans, and genderqueer musicians in Western Massachusetts. I founded this grant

program in collaboration with the Institute for the Musical Arts in Goshen, MA. All future performances of *Quiero Volver* will benefit the BridgeSong Fund, which I envision will change to a nourishing grant program. We do not need chaos to nourish artists. We need an ethos to support the thriving and nourishment of artists, especially queer and trans artists of color.

When we speak of mess, we speak of the human body, a precarious form. Our human mess is generative. Each of the projects I have discussed here were created in the mess of chaos, grief, death, and/or loss on a personal or global level. As each creative project continues to grow and take root, related projects expand and transform. This creative flow reflects the way our bodies are affected by the absence, loss, death, creation, and transformation of other bodies.

This is a reminder to address the current state of grieving that is present in our world. Creative collaborations, messy and nonlinear as they can be, are a crucial way to build decolonized, liberatory, healing spaces together, as interdependent creatures on the planet. Here is an offering of guiding questions to begin or continue this work:

Who is your family (by blood or chosen)?

To where do you turn when your lineage lines are broken?

How do you support the nourishment of your kin?

To where do you wish to return?

To continue exploration, readers may be interested in Gloria Anzaldúa's book titled *Light in the Dark/Luz en Lo Oscuro: Rewriting Identity, Spirituality, Reality* (2015). To review a syllabus that incorporates these ideas into teaching, see <https://tinyurl.com/3kgknxed>. Listen to Diana Alvarez's album, *Ser Artista*, which features music from *Quiero Volver*, here: <https://doctoraxingona.bandcamp.com/>

I, W O M A N

ن زن

Sanaz Haghani

I want to start by introducing myself as a storyteller. Storytelling allows me to transmit my message to engage viewers in conflicting emotions of desire and forbiddance, fear and passion, and it helps me to piece my imagination and experiences together. I try to visualize the stories of women's lives by depicting those narrations in various ways, such as with installations, artist books, or

sculptures crafted of handmade paper. I want to create a visual expression of emotion—an image that penetrates the viewer’s mind, even if just for a moment.

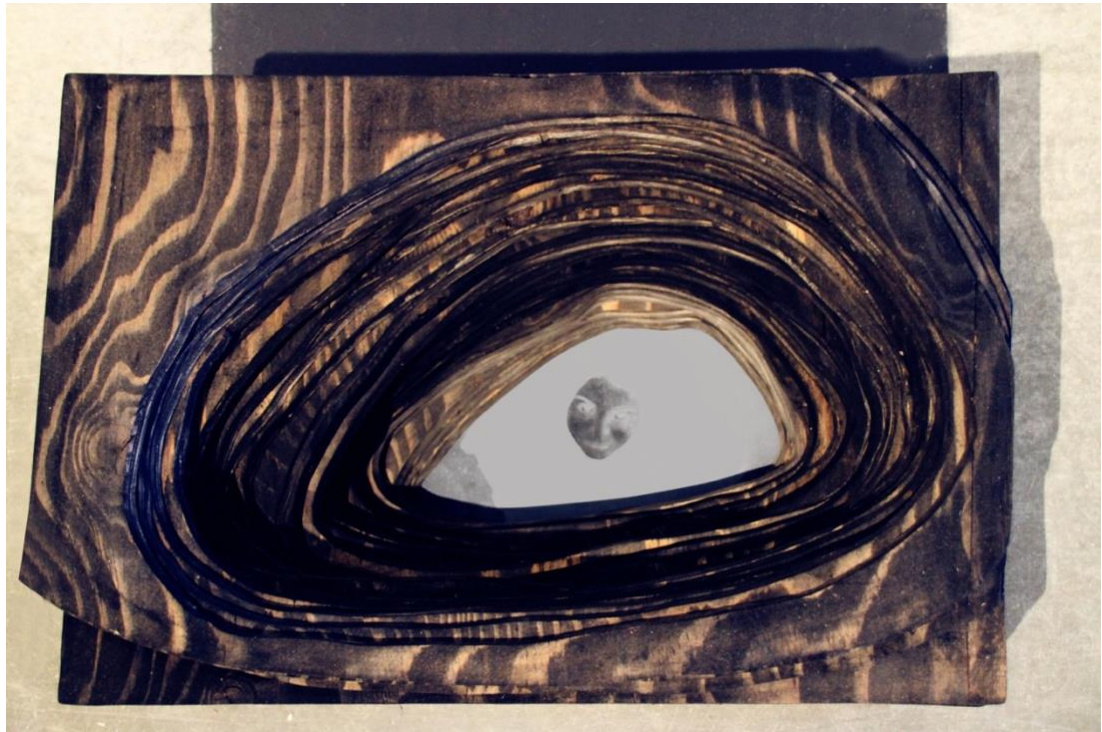


Figure 1. *The Hole* (closeshot), 2017, mixed medium installation

I am walking along a narrow path.
A steep precipice on one side, it is
a deep bottomless in depth
a depth bottomlessly deep (Munch 2005, 20)

I am thinking about my works as a shout for my femininity. The suffocating rules from the where I grew up muffled women's voices. Women have been silenced in diverse ways such as ridicule, enforcement of family hierarchies, male-controlled media, and anti-woman academic policies. Perhaps *The Scream* by Edvard Munch, its expression and that depicted pain shadowed my consciousness. “I sensed a scream passing through nature; it seemed to me that I heard the scream. I painted this picture, painted the clouds as actual blood. The color shrieked. This became *The Scream*” (West 1993, 64).

My experience working as a visual artist and educator introduced me to the subconscious silence I am involved in. As a teacher, I have been investigating different ways to encourage students to participate in class conversations. And as an artist, I look for the mystery behind my visual mental imagery and their quiddity. My research helped me to clarify that silence and encountered me with a desire. A desire for a shout. And my work became a struggle to a scream.

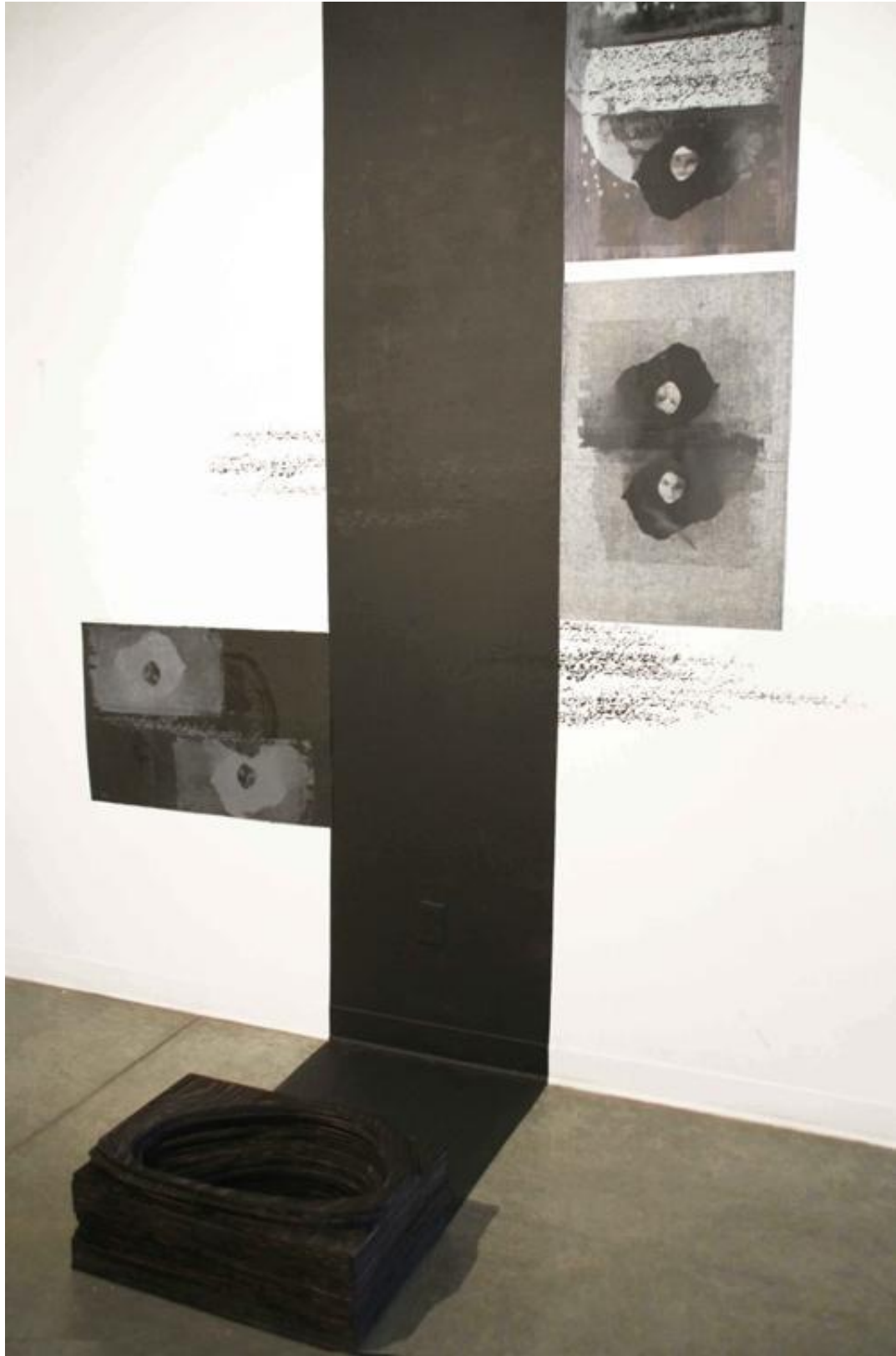


Figure 2. The Hole, 2017, mixed medium installation



Figure 3. Untitled (from Bahar Series), 2017–2019, woodcut and screen print, 22" x 15"

As an artist, I wanted to release myself from quiescence. But I realized I became accustomed to a silence; the hiddenness became a part of my existence. In my works, these muted responses or visualizations are a sign of my denied gender. I attempt breaking that eternal stillness, unconsciously. I transform that habituation to vague, involuntary forms. I aim to visualize that dictated temperament by using floating shapes and mysterious, twisted backgrounds.

In my experience, the view of womanhood in the Middle East has improved over time, but still, women experience a lingering secondary status which challenges them in their social and personal lives. Unreported crimes include honor violence, compulsory marriage, physical brutality, and many more hidden cultural and social issues that women face, and many of the victims never dare speak of nor even mention such problems.² Through my art, I question that silence. Where does the fear that causes such silence come from? Why do these problems continue to be denied or ignored? These questions and this situation have led me to borrow and use a familiar form from my home culture, and I wanted to approach this from a different visual concept; I wanted to visualize the form of the female figure, which is both familiar and unknown at the same time. Little by little, I came to the female figure in the form of a chador. Chador is the all-encompassing black cloth Iranian women wear to disguise their figures, and hide their body. Chador is closely associated with the Islamic practice of *hijab*, which

means to hide from view or conceal (related to the concept and practice of the veil). What women must cover depends on the specific variation and interpretation of religious texts as well as the local contexts and traditions. It ranges from “the bosom” to the whole body, except the face and hands. The veil is often understood as the vehicle for distinguishing between women and men and a means of controlling male sexual desire.

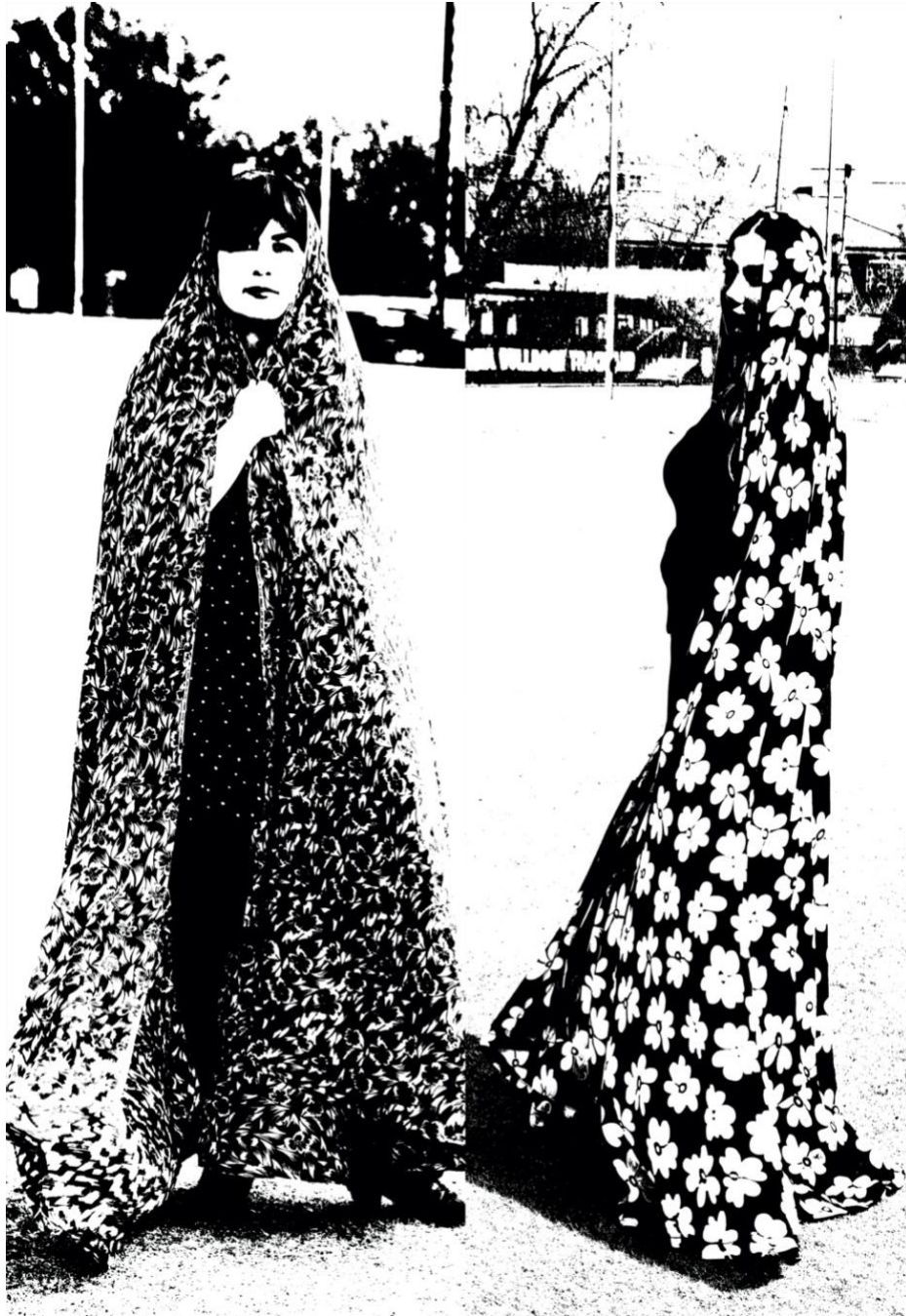


Figure 4. Graphic images for Illusive Dance Series, work-in-progress, 2019



Figure 5. Behind the Darkness, 2019, monoprint and etching on Kozo-shi paper, 36" x 120"

However, the experiences of the veil are complex and specific to time and place. Some experience it as liberatory, while others see it as a mode of control (Killian 2003). The veil itself predates Islam and is practiced by women of several religions. It is also related to other axes of difference, especially class. For example, wealthy women could afford to veil their bodies completely, whereas poor women who had to work [in the field] either modified their veils or did not wear them at all (Killian 2003, 570). Hijab represents three thousand years of history, reflected in part in its different shapes and colors in different historical periods. Through the years, we see women wearing hijab in white and blue indigo; in some areas, it appears with patterns, and finally, it is seen in black, the way many women wear it in Iran (Fāzl-Vāzīri 2013). However, the hijab that I am talking about does not refer to this actual form of dress. I try to invoke the veil metaphor's impact on women's lives. In my work, I investigate hijab as a political tool for hiding women's individuality while women have simultaneously used it as a mode of liberation. I try to convey this contrast by borrowing the chador's floral patterns, using dark colors that hide unfamiliar forms, or capturing women's faces with a blank expression. I make installation art to convey and share abstract space with viewers.

In her article "Do Muslim Women Really Need Saving?" Lila Abu-Lughod (2002) highlights the meaning of hijab from different cultural and political viewpoints. She refers to Hanna Papanek (1971), who describes the burqa as "portable seclusion" and "noted that many saw it as a liberating invention because it enabled women to move out of segregated living spaces while still observing the basic moral requirements of separating and protecting themselves from unrelated men" (Abu-Lughod 2002, 785). Papanek poetically places "seclusion" alongside

the beautiful meaning of security and protection, and expresses her profound view of culture and social norms in a magnificent way. She interprets the hijab as a safe space or place. Social behaviors and norms have beautifully deep and instructive meanings that can be examined differently or even take on different meanings based on economic, political, and geographical situations in different societies. Through the flow of subjective experiences, humans perceive external reality and demarcated from it. Therefore, questioning different cultures is a genuinely puzzling phenomenon. In my work, colors, forms, and volumes formed based on my life experience. I want to interpret "portable seclusion" as an imposed sanctuary that unconsciously isolates me even from myself—an abstraction that immerses me to a concept of not existing.

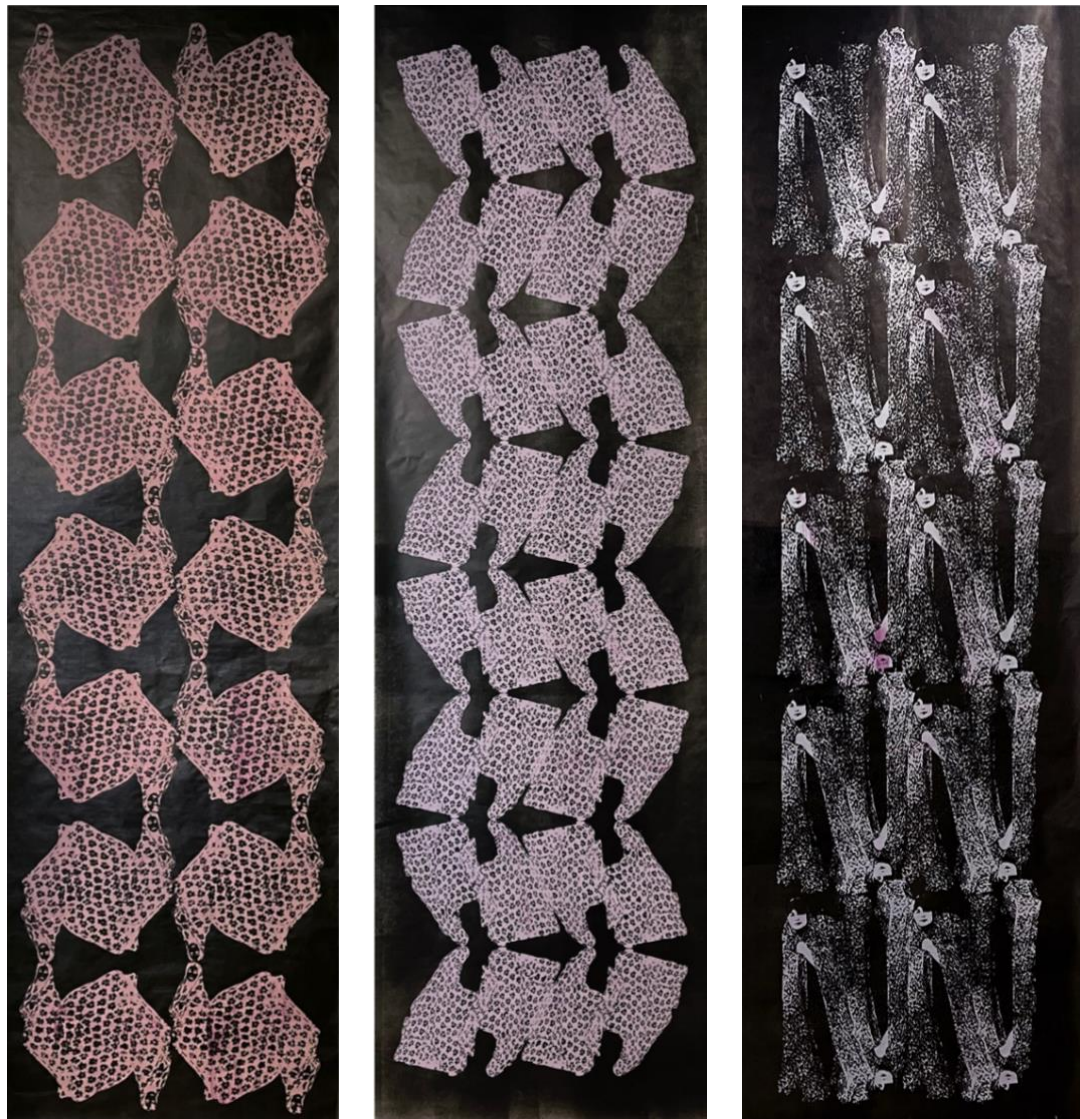


Figure 6. Illusive Dance, 2020, screen print and monoprint on Kozo-shi paper, 36" x 120"

The materials chosen in my work convey a message and I see them as symbols and metaphors of my thoughts. I use fabric, sometimes wooden boards, and mostly paper in my work. Historically, paper has been used as a medium to deliver messages. This ancient print medium has become a surface for my vision—a place where I can visualize my own imagination. The main ingredient in making paper is cellulose fiber. The idea that cellulose fiber can come from so many different sources gives me the opportunity to add another concept to my work. I think of borrowing something personal from the women whose experiences and stories I was trying to visualize. I start with collecting materials like used prayer veils, women's hair, prayer beads, and other personal objects in order to use them as fiber for the paper or to embed them between two sheets of paper. I look to envision a presence, to add something that had belonged to or had been somehow used by someone that I was referencing. I seek to convey both being and not being seen, and to reach an invisible presence. Each figure is a storyteller that rehearses the colorful mind of the women the chadors are borrowed from.



Figure 7. Essay Topic: (موضوع انشاء: صدبار بنویس زن!) Write Down the Word Woman One Hundred Times! 2021, monoprint and screen print on Kozo-shi paper, 24" x 100'

Raucous Theater: Ingenious Feminist Collaborations Telling New Stories in Old Spaces in New Ways Sharon Clark

I am ostensibly a playwright, that is what I have been for a quite some time, but I became a playwright who started to become interested in notions of how I could tell stories that are female-led, and seen through the female gaze, using digital technology and immersion. About ten years ago, I founded Raucous, a theater company in the UK where we make theater in what we call found spaces—spaces that are not theaters. We make theater in Victorian tunnels under train stations, in abandoned Edwardian swimming pools, in old warehouses, and factories—anywhere that actually *isn't* a theater. And we play around with all manner of technologies, old and new, including AI, AR, binaural sound, and film. We are seriously playful, working to push the toolset for theater, and think about how a centuries-old art form can push boundaries with new technologies. At Raucous, we are driven by the common credo of who we are: theater-makers who are driven by what *might* be possible. We forge new stories, in new spaces, in new ways, by working with ingenious collaborators. We are nothing without our colleagues, in our transdisciplinary collective.

We are driven by feminist stories at Raucous, stories about women and class, poverty, and how women have to respond to situations beyond their control. When looking at theater through this feminist lens, but also through the gaze of digital technology, I was interested in how we could make the story more immersive, more tactile, and more emotive for an audience. In response, we developed an idea called OBT, which stands for object-based technology. This then further developed into the notion of a digital “familiar,” inspired by the use of the term *familiars* in medieval and early modern Europe to denote an animal that accompanied a witch and would assist her in the practice of magic. At Raucous, our OBT or familiars are objects that the audience members are gifted during the play. They have each audience’s name on them, they are personalized, and the audience carries them or wears them. Then, during the play, during a moment of huge emotional resonance, they move. We animate the inanimate. The familiar you hold imbues the space and the narrative with a more heightened and personalized audience experience, building an atmosphere of awe and wonder.

The ambition is to provide each audience member with a personal object that is specifically designed for them, not via inventing new technology but through repurposing existing technology in innovative ways. We aim to surprise the audience, not to intimidate, animating the inanimate to underscore the emotional moment in a script. This allows the audience to feel the scenography, and for the first time, to be able to haptically experience the narrative. This experience builds the audience as a congregation, having a joint experience together with each

other as their familiars start to animate. The audience is also gifted a role in the story itself, a role that is revealed at a seminal point in the narrative.

Our first show was *The Stick House* (2015), a Gothic feminist fable that referenced *Beauty and the Beast* and was set in five ash tunnels under Bristol's Temple Meade station, which is the main train terminus in Bristol. In the photograph (fig. 8), you can see the audience in the ash tunnel, starting to find their familiars. The familiars had labels with the audience members' names on, and then the audience started to pick them out, and call to each other. In this story, the familiars are wicker dolls, each individually designed, made by the protagonist, Marietta, who sold them in the market. The dolls were heavily linked into the narrative, and helped to build a world where magic exists, inviting the audience members to form a relationship with this personalized object. Holding onto the dolls, about halfway through the show, as Marietta became entrenched in an attack in the woods, the dolls began to pulse with a gathering heartbeat. As the heartbeat began to gather pace, so too did the action you were watching in the story. And then, just as Marietta was about to wreak her revenge on her attacker, the doll spasmed, with arms and legs splaying out. In the next image (fig. 9), you can see part of the script describing this moment in the story when the dolls come to life. This was successful for many people in the audience; they enjoyed the surprise of the moment. However, some people were shocked when the dolls moved, and threw them against the walls. We did not account for this—this is where messiness comes into the equation, you are still finding out, even in production, what works and what doesn't. What moments take you, as the maker, by surprise. Nothing is neat. Nothing works within its boundaries. The process and the product, by the nature of innovation, are messy. They need to be in order to allow for exploration and experimentation.

Our second show was called *Ice Road* (2017), set during the Siege of Leningrad, and sited in disused Edwardian swimming baths. Once more we needed to embrace the notion of mess as we invented and tested more notions of making and exhibiting. The initial idea we explored for the familiars was that we would have real apples, which would light up in three different states. However, three months and great expense later, we realized they did not fit the narrative. So, we had to rethink initial concepts and we alighted on the idea of Soviet radios that could channel the voices of the dead. Audience members wore them around their necks, and they provided a conduit to the voices of the people who died, but also linked the audience together as an orchestra at the end of the piece. At the end of the play, you heard your radio "tuning up" as a single instrument in the orchestra, and if you stood next to others, in the arrangement of a Russian orchestra, you could collectively, as the audience, play Shostakovich's Leningrad Symphony no.7.



Figure 8. Image of audience at The Stick House.

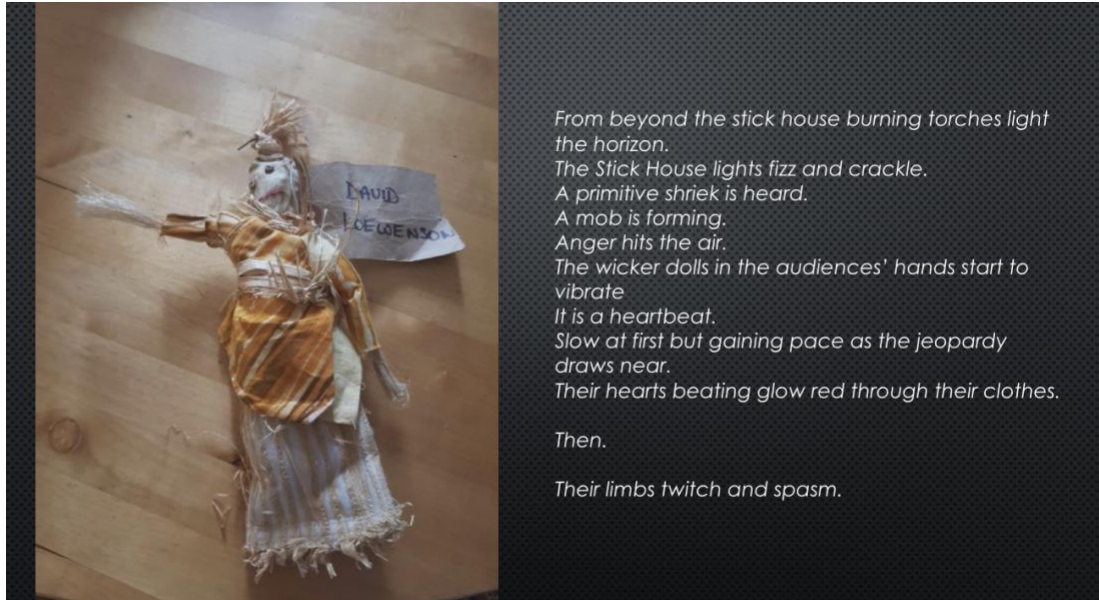


Figure 9. Image of the doll and script excerpt from The Stick House.

Our next show is called *The Undrowned Trilogy* (2022). It is a trilogy told in three parts. The first part starts with a story at home called "The Foundling." It uses AR, AI, and spatial sound to create theater on your desktop or your kitchen table. The next part of the story takes place in an urban landscape in the street on your

journey to the performance space. The final part is "The Undrowned," which is a large-scale theater experience in a found space. What will the familiars do in "The Undrowned?" We don't know yet. But they will be small tokens, key objects for this story, which is about a sixteenth-century wet nurse and the tokens foundling babies were given by their mothers when they had to leave them due to extreme poverty. We think the tokens will trigger some part of the story, but we are still working on prototyping that interaction.

These moments of interaction between audience, space, familiar, and story carry within them both potentials for powerful dramatic unfolding and powerful mess. To risk losing control of the interaction, to invite the unpredictable in, and pull back the curtain on instilling emotion in story exposes the audience to experience the very essence of Raucous's feminist theater goal.

So how do both maker and audience respond to elements beyond their control? How do we use mess to alter the aperture of the female gaze, promoting its vision through the eyes of all who see the performance? Unpredictable people using unpredictable objects during live theater is a messy proposition. And yet, the confrontations through exploration are essential to the transmission of feminist theatrical stories.

Using AI, Culture, and Art to Project the Future

Nettrice R. Gaskins

My artwork sits at the juncture between the physical and the artificial or digital, which includes the interplay between images, sounds, algorithms, and data. I use the internet as a primary platform to exhibit my work such as in virtual 3D environments where different ideas are expanded beyond what is possible in the physical world. Commissions and residencies have enabled me to create physical renderings of my digital art for public engagement. Social media has also been an effective way to share my work.

I push the boundaries of what is human art and explore what I refer to as "techno-vernacular creativity" or TVC. TVC taps into the natural DIY inclinations of creative people as well as the educational power of inventing or making things using technology. This includes exploring the emergence of computation as a creative medium, rather than just a set of tools, suggesting a growing correspondence between the digital realm and traditional art. Many of the artists I refer to in my book are "generators of value" (see Eglash and Garvey 2014, 76), meaning the product of their work circulates back to their communities in some way.

For example, Salome Asega and Ayodamola Okunseinde's *Iyapo Repository* makes use of objects, rituals, and performances to create spaces and narratives where

social justice issues are brought to light, discussed, and addressed (Gaskins 2021, 26–27). This archive is used to collect ideas from participants and turn them into digital prototypes and, occasionally, into physical artifacts that affirm and project the future of the African diaspora. Stephanie Dinkins uses artificial intelligence or AI to build stories about community and social justice. These and other projects have the potential for helping underrepresented groups see themselves as “capable of designing and implementing computational solutions to self-identified problems or opportunities” (Tissenbaum, Sheldon, and Abelson 2019, 35).

Emerging technologies such as facial recognition carry within them biases that can have a detrimental impact on specific communities or groups even when the purposes for their use are altruistic. According to Ruha Benjamin, computer programming languages (codes) and algorithms can “act as narratives” that reaffirm existing inequalities and “operate within powerful systems of meaning that render some things visible, others invisible, and create a vast array of distortions and dangers” (2019, 7). Artists use AI to interrogate biases by applying rigorous artistic analysis—determining what features are conveyed and why artists use them—to computer data. They create and use algorithms to establish new artistic processes that show how artworks are performed, presented, or produced.

Researcher Theodore Kim and colleagues (2021) propose the recruitment and engagement of stakeholders from diverse backgrounds that can ensure that the development of emerging technologies is equitable. They assert that no one is better positioned to create algorithms that capture the subtle qualities of darker skin, for example, than the people who see these features in the mirror every day (Kim et al. 2021). Artists often experiment with the possibilities of uprooting racial bias from its roots; in recent times, some have used AI to enhance or build on their work.

As a digital artist, I incorporate AI in my creative work to raise awareness and to mitigate against its harmful effects. I collaborate with other artists and designers to interrogate this technology. I collaborate with AI, specifically through the artistic stylization of images in neural networks, known as image style transfer, which renders new images using multiple styles (Hertzmann 2018; Gatys, Ecker, and Bethge 2016, 2421). The first layer of the process picks out elements of a source image. Next, additional layers pick out more details, replacing the pixels with numbers. Finally, the layers are combined to recreate the original content in the style of other images (Miller 2019, 84). Online applications such as Deep Dream Generator provide image stylization models that generate ranges of skin tones using styles that have qualities to make certain facial features more visible. This is important because research shows that older computer graphics models and effects can dull or wash out the features of darker skinned subjects (Kim 2021).

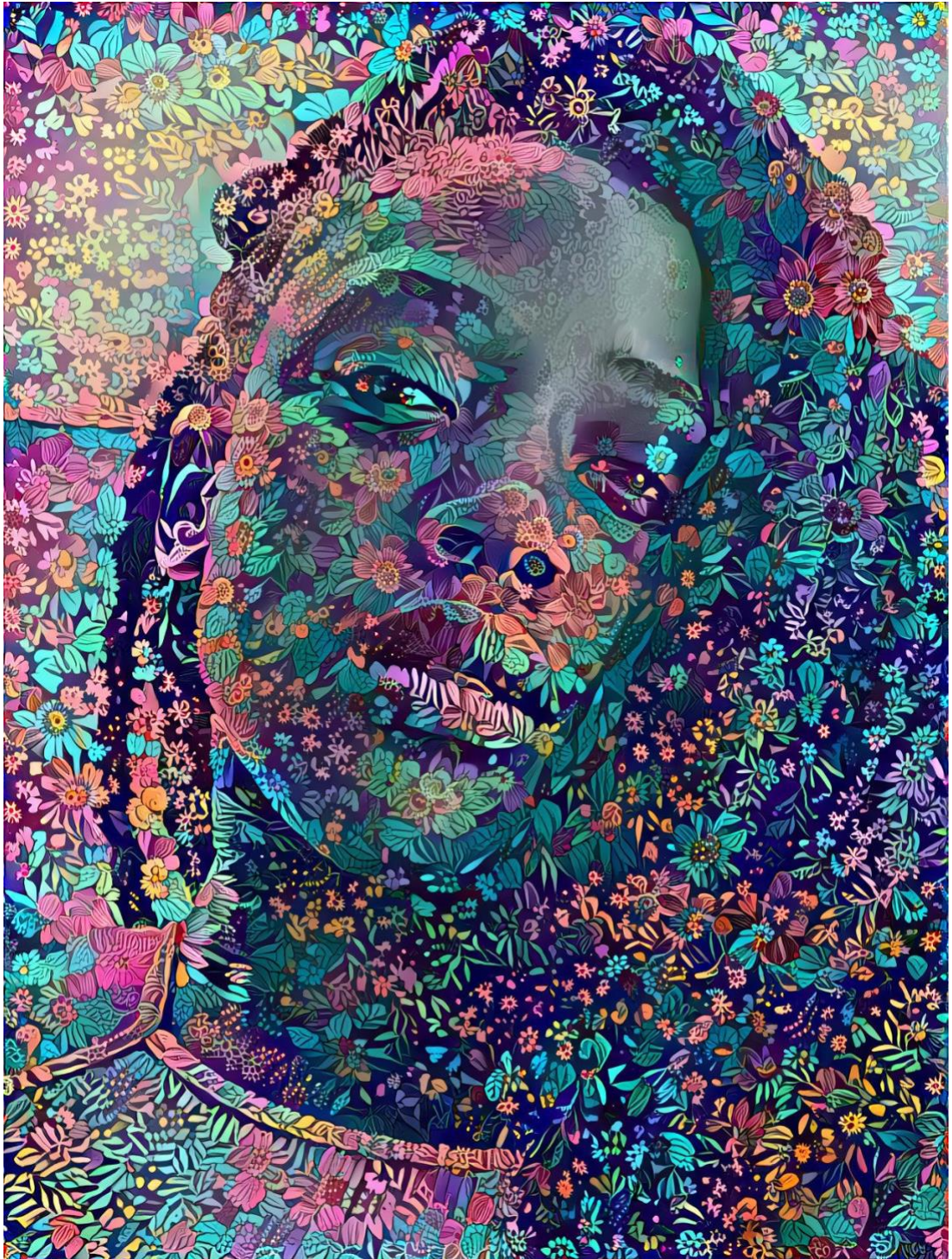


Figure 10. Janeen, 2021. Created using deep learning. Courtesy of Nettrice R. Gaskins.

To create AI portraits (as art), I use source images such as personal photographs, stock photos, and still images from archival film. These images capture the beauty

of my culture, from hairstyles and accessories to darker skin tones. The combination of technologically advanced tools, source images used as media, and the final effect with a variety of styles offer interesting contrasts. Many of the images do not seem to belong to the sphere of the virtual, as they often refer to the culture of the handmade, yet these worlds are brought together in a delicate and poetic dialogue because of the AI process. My challenge as the artist is figuring how much I want the AI to intervene, controlling how much the algorithm reconstructs new images, from the input (photos) and custom style images. The amount of the intervention depends on the subject. The resulting images open new frontiers of artistic expression while posing moral and ethical questions about future uses of AI, such as how the technology can support, not replace, the value of artists' work. How can artists use AI technology to celebrate culture and sustain community?

Beyond using AI to generating new images, I wanted to experience building an application from the ground level up, with input from collaborators and diverse communities of practice. I worked with other artists and technologists to develop an AI application based on pose estimation, which uses deep learning to predict, track, and look at combinations of poses and the orientations of people/objects. A recent Mozilla-sponsored project I was involved in used pose estimation to generate images based on Caribbean/Carnival dance data (King 2021). For the latter project, we recruited participants from the Caribbean diaspora who joined us in Zoom parties where we explored questions about AI. We used the [Carnival AI app](#) to collect performance-based data and generate AI artwork. We launched the app and other artwork in September 2021. Being a part of this collaboration between artists, our communities, and AI helped me to better understand how AI might be used to liberate and celebrate humanity.

"Fuck This!": A Quilt About Anger, Dis/Comfort, Mess, and Textile Design

Anne Sullivan

This quilt is very personal. I was raised within a family and a religion that has strong expectations of a woman's role in the family. As part of this, I was taught to not make other people uncomfortable and that, as a woman, my job is to provide comfort. Even with this upbringing, I ended up getting a degree in computer science and worked in the tech and video game industry for over a decade. I remember my first game programming interview, where the president of the company peered at me and then my resume, and he said, shocked, "You're a girl!"

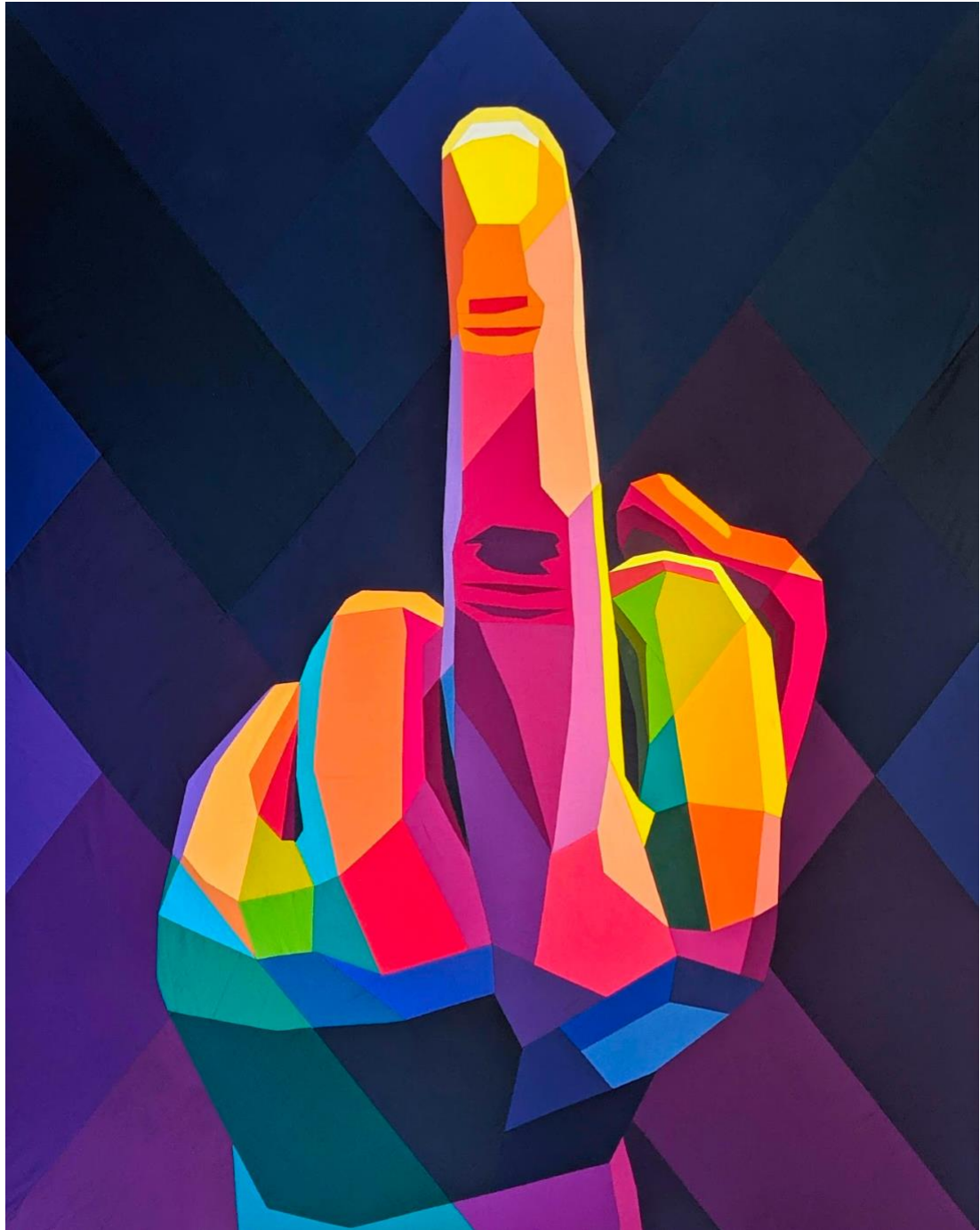


Figure 11. "Fuck This!" quilt, Anne Sullivan

Once I had the job, there were the work outings with male coworkers at strip clubs and bars, posters of scantily clad women hung in the office, and continued underestimation of my skills as a programmer. A lot of my time in the industry became about presenting a curated version of myself that would not make others uncomfortable with their preconceived notions of women. I tried to be one of the guys. It wasn't until graduate school, when I returned to academia after over a

decade in the industry, that I admitted to somebody else that I crafted. That person happened to be the only other woman in the computer science PhD program with me. Crafting is something I've done my whole life, and is an important part of family bonding, but it did not belong in my carefully curated presentation.

This was the first crack in my veneer. Academia, and computer science in particular, provided a number of opportunities to evaluate systemic sexism from a personal perspective, further fracturing my carefully cultivated facade. And then the US presidential election in 2016 happened. I felt so hopeful when I placed my vote for the first woman presidential candidate! And then I cried myself to sleep as the election results started pouring in. Over time, I processed the despair, and I remember waking up one morning completely consumed with anger. Anger at the indifference at the increasingly normalized injustices that were and are happening and anger at being told over and over that our fears about the new president were unfounded. This quiet anger had been building up over decades of being told by society that I didn't matter, that my job is to make other people comfortable; my own comfort didn't matter. And in that anger, a fully realized picture of this quilt came into my mind. I had no idea how to make it, but I was driven to figure it out and see it to completion.

The design of the quilt is inspired heavily by Wedha's Pop Art Portrait (WPAP), which is a style of illustration started by Indonesian artist Wedha Abdul Rasyid (Dawami Marianto, and Wisetrotomo 2021). The style is recognizable through the use of vividly colored straight-edged geometric shapes that make up the portrait. This type of illustration is bold and arresting, yet beautiful. The quilt is also inspired heavily by the quilts made by the women of Gee's Bend, Alabama. They've played a foundational role in the modern quilt movement, which is how I got introduced to quilting. And this quilt is also heavily inspired by the quilter Chawne Kimber. While quilting is often about making objects of comfort, Kimber's quilts are not comfortable; they are not silent. I was inspired and realized that quilts do not all need to be comfortable.

To make this quilt required learning a number of new skills and using materials that don't actually show in the end product. The finger is based on a self-portrait, and I created the WPAP design in Illustrator. I wrote a program that would match the colors to real-world available fabric. Because of the complex shapes, I needed to use English Paper Piecing (EPP), a method of using stiff paper templates to wrap fabric around, and then hand sewing the pieces together, before removing the paper. I designed the templates in Illustrator and used a programmable digital cutter to cut cardstock templates. And then I spent four years hand sewing all the pieces together. Tens of thousands of tiny stitches hold this quilt together, requiring hours of sitting with and processing my anger and sewing them into this

quilt. I finished the “Fuck This!” 5' x 4' quilt top on January 20, 2021—closing the chapter of the presidency that partially inspired the quilt to begin with.

Making this type of quilt is a physically messy process. It generates a large amount of paper and fabric scraps, among other things. But even beyond the physical messiness of this project, this quilt was born from a place of mental and emotional messiness. And my perspective on quilting has been shifting. I'm becoming familiar with another kind of mess, around modern quilting and around craftivism (craft-focused activism). Much of craftivism is focused primarily on raising awareness, but for many social justice issues, awareness is not the problem. Lee Anne Bell's *Storytelling Project Model* (2010) describes ways to move beyond awareness when sharing and creating stories, and these are things that can be incorporated into craftivism. The modern quilt movement (primarily championed by the Modern Quilt Guild [n.d.]) takes direct inspiration from the quilts made by the women of Gee's Bend, Alabama, who are direct descendants of slaves who worked in a cotton plantation there in the 1800s (Beardsley 2002). However, the modern quilting groups are generally made up of middle- and upper-middle-class white women, including myself. Cultural appropriation is common, and it is paired with a disdain for the traditional, the history, and the cultural contexts that surround quilting. These are messy problems, but they are worth tackling. These are the issues I keep in mind as I move on with this quilt four years later, in a way that honors where I've been and what I know now.

Craftivism is a movement that uses crafts as part of activism. The Pussyhat Project, which led to hundreds of thousands of women wearing pink handmade cat-eared hats during the Women's March on January 20, 2017, is a well-known recent example of craftivism. However, much of craftivism remains focused on awareness of issues. While this can be helpful, as was the case of the AIDS quilt project, for many current issues our society faces, awareness isn't the issue, so it rarely translates into action or change. What are some ways that crafts and craftivism might move beyond mere awareness of issues, and begin to affect real change?

Feminist Philosophical Toys

Rebecca Rouse and Nassim Parvin

Feminist Philosophical Toys presents a re-imagined set of paper machines as feminist materials for designers and makers, artists and theorists to think with.³ Grounded in an understanding of the rhetorical and educational powers of material engagements,⁴ this project provides a grounded approach to feminist design and critique through the use of cut-and-fold paper objects. The seed of our project was our shared discomfort over the positioning and uses of “design cards”⁵ in games and design education, even though there is little evidence to support

their effectiveness (JafariNaimi et al. 2016). We were particularly concerned about how the cards, their aesthetics and disposability, could trivialize and reduce social and political issues such as poverty, ableism, sexism, or other forms of oppression. In the spirit of moving beyond critique toward action, this initial focus on the inadequacy of design cards as implements to “think with” led us to explore other materials explicitly designed to think with. Examples we found compelling ranged from the rich history of nineteenth century so-called philosophical toys, domestic educational devices, still used in STEM education today, to the design of educational materials such as Maria Montessori.⁶

Traditional philosophical toys were luxury-object apparatuses such as the zoetrope and stereoscope, brought into the Victorian home to teach principles of human perception and disseminate the practices and principles of the scientific method. Feminist philosophical toys are envisioned as flexible and accessible paper-based objects that push back against scientific positivism as it manifests in design, refute the book as the primary material of the philosophy discipline at large, and open up feminist perspectives and methods at the intersection of philosophy, pedagogy, and design practice. Feminist philosophical toys aim to be at once a reflection and an extension of a feminist epistemological and ethical position: that of situated knowledges and reflexive practice grounded in relational and restorative justice. The toys are presented in a series, designed for engagement in order from 1 to 7. They are intended to be used as an integrated set within (design) educational settings. Each toy is DIY, uses paper as the primary material, and is built around one or a cluster of concepts from feminist theory.

Toy #1: Book Making

The series begins with making a handmade booklet with a sewn binding. Participants are introduced to the basics of bookmaking, which also provides them with a surface for keeping notes, sketches, or other materials used in developing the subsequent toys in the series. A basic set of materials are needed: interior pages, cover paper, needle, and thread. The simplicity of this first activity is an invitation into making. At the same time, participants with experience may choose to produce more complex versions if they wish. The toy brings to the fore issues of knowledge production and showcases the rhetorical power of form and material mattering: once ideas are in a book, they are “present” in a way that has a particular valence.⁷ This is an invitation for a collective conversation about knowledge making in different cultures and communities, and in academia too.⁸

Toy #2: Oracle Cards

Oracle cards are a critical and satirical play on the proliferation of design cards commonly used in design education and industry. This toy is offered to aid the designer who lacks foresight, who can benefit from the use of divination cards similar to Tarot or other oracle decks in casting their imagination into the future. The cards help conceptualize potential failures, both disastrous and pedestrian, of

their own designs. This toy works to materialize feminist theories that may be considered commonsense yet are ignored and underplayed in dominant discourses and practices of technology development. Examples include the need to consider the long-term impacts of technology as discussed by Sheila Jasanoff (2016), and how seemingly innocent concepts such as “unintended consequences” work to forego responsibility (Parvin and Pollock 2020).

Toy #3: Experience Frames

Experience frames work to explore the concept of positionality both in knowledge-making practices and broader experiences of oppression (Crenshaw 1990; Harding 1992; Takacs 2003). The toy takes inspiration from nineteenth-century movable books, such as die-cut accordion books by Lothar Meggendorfer⁹. The form of the toy aims to surface and challenge reductive readings of intersectionality as an additive and stable notion of identity¹⁰ and instead highlight the simultaneity and variety of experiences of oppression within everyday encounters. In doing so, we invite participants to critically engage the history of this concept and explore both the pains and joys of inhabiting the margins.

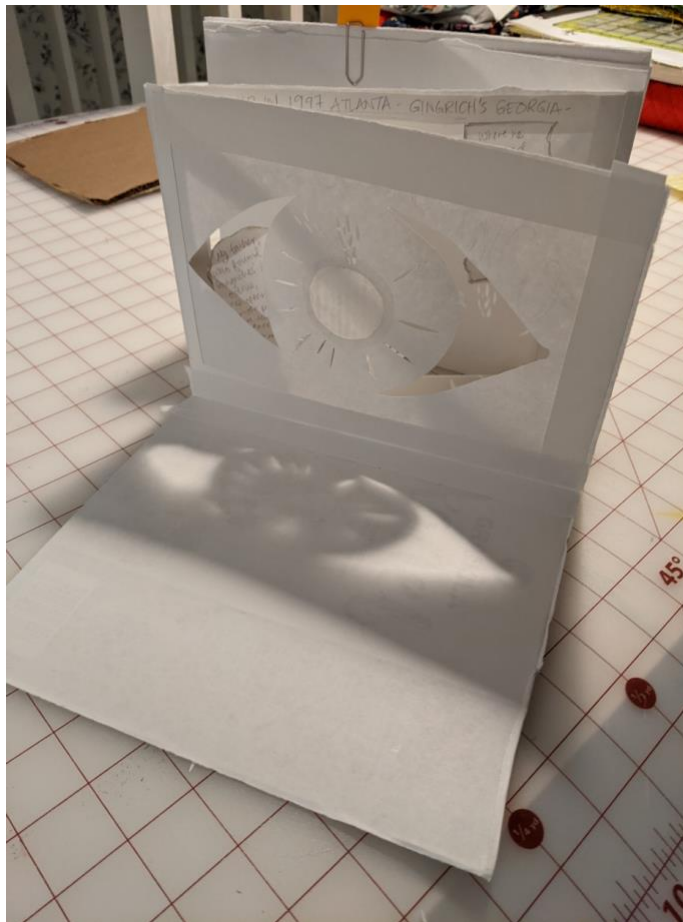


Figure 12. An example of experience frames toy

Toy #4: Circular Conversation

Circular conversations is focused on feminist scholarship that emphasizes the repetitive patterns of struggle, structures that maintain the status quo, and possibilities for breaking free from oppressive cycles. Inspiration is drawn from medieval volvelles as well as more contemporary twentieth-century "circle charts." This toy aims to advance material engagement with theories such as work on feminism and complaint (Ahmed 2021), the liberatory potentials of performative practice (Boal 2006), and scholarship on the cyclic natures of both socialization and liberation (Harro 2018).

Toy #5: Conflicts and Coalitions Accordion

This toy takes its starting point in feminist scholarship on incommensurability, agonism, and the value of opposition and conflict as found in the works of Chantal Mouffe (2013), bell hooks (2010), and Susan R. Jones (2008). Differences and conflicts are surfaced and shared while at the same time possibilities for action are explored (in spite of, because of, or by resolution of conflict and difference). This toy takes the form of an accordion fold book,¹¹ constructed from a single sheet of paper, in which each of the four sections of the book is positioned at right angles with another. In doing so, the toy helps identify and surface differences while at the same time underlie the need for coalition building, collaboration, and collective action. Each participant is invited to first create their own single accordion, then work with others to cut up and reconfigure sections in new ways.

Toy #6: Fortune Teller

The fortune teller draws on the classic children's origami structure known as a fortune teller or salt cellar (Murray and Rigney 1928). This toy utilizes scale to change the nature of the interaction with the material form, scaling the fortune teller up to a larger size such that it can only be operated in collaboration with two or more people, and cannot be used alone. The collaborative nature of the oversized form is also used to develop the content for the fortune "flaps," which display co-authored and/or co-illustrated representations of speculative futures. Participants develop this toy in conversation with work on feminism and futurism (e.g., Grosz 2000), feminist speculative design (e.g., Martins 2014), and feminist theories of fiction and storytelling (e.g., LeGuin 2019).

Toy #7: Curation and Collection Folio

The final toy is a paper folio with pockets for bringing the six toys together into an assemblage. The framing and arrangement of the structures that hold and therefore also produce knowledge are discussed in relation to Karen Barad's (2007) work on agential cuts. Feminist scholarship from informatics is included, such as Bonnie Mak and Julia Pollack's (2020) research on the history and power relations of the card catalogue, and perspectives on feminist curation in the art world (Richter, Krasny, and Perry 2016). This toy is discussed not as an ending or

culmination but rather a beginning, and participants are encouraged to bring their work in relation with each other's in new ways that may also be shared with a wider public, such as through publication of zines as discussed by Elizabeth Groeneveld (2016). The opportunity to carry this work further is envisioned as a possibility for making kin (Haraway 2016), or as a way to collectively develop a killjoy survival kit (Ahmed 2016).

A Practice of Live Theorization

At its most generative, it [the use of creative practice in higher education] becomes a practice of live theorisation: the thinking in action that takes place as students come to understand concepts about which they have read and then formulate (or materialize) as their own.

— Anna Hickey-Moody, Helen Palmer, and Esther Sayers, "Diffractive Pedagogies: Dancing across New Materialist Imaginaries"

While the toys are easy to make and engage, we don't see them as standalone pedagogical artifacts. To the contrary, it is crucial for the facilitators/educators to create a "brave" space as theorized by Brian Arao and Kristi Clemens (2013) in the learning environment in which students (and instructors) are invited to bring their whole selves into relation with each other and the material. This is only possible when the group has attended to shared concerns around how we communicate with each other and developed a shared understanding of the purview and goals of the educational experience as co-created between learners and instructors. The toys are intended to help surface what matters in the situation, and we expect that in the development of conversation, participants push against, amend, adjust, and reinvent the materials too. The juxtaposition of philosophical and playful in "philosophical toys" is intentional to make philosophy grounded and accessible while at the same time push against fetishization of matter. Toys can be played with and kept. You can grow with toys and find them an object of lifelong learning and fascination. But you may also outgrow toys (and theories, too). On the other hand, the knowledge gained via meaningful exchange in dialogue with others is less disposable and has the potential for transformative effect.

Messiness and Feminism in Early Childhood Education

Erin Mergil and Jessica Pelizari

As Montessori educators, we are tasked with the responsibility of guiding some of the world's youngest citizens on their journeys of self-discovery and expression. The framework in which we operate was developed by Dr. Maria Montessori, who based her educational philosophy upon years of observation and a belief that the aim of education should be to foster an environment in which children are free to

explore and experiment to construct their inner knowledge of the world and their place within it. Dr. Montessori, whose work was conducted in the late eighteenth and early nineteenth centuries, wrote in the style of the time, often referring to “man” when speaking of humanity, but this belies the fact that she herself was a woman ahead of her time. As the first female doctor in Italy, Dr. Montessori’s passion for science and medicine led her to pursue the career of a physician, to the detriment of her relationship with her own father. Despite the hardships she faced, the educational methods and materials developed by Dr. Montessori continue to impact the lives of children around the world to this day. To those of us who choose to teach in Montessori schools, we whole-heartedly embrace Dr. Montessori’s belief that “a child is a discoverer. He is an amorphous, splendid being in search of his own proper form” (Montessori 1936, 99). To this effect, it is our work not to insert ourselves into the development of our students, but rather to provide them with the means to unfold into their most authentic selves. We do so by providing a thoughtfully prepared environment, freedom of exploration and experimentation, and opportunities for creation.

Because he is in love with his environment and not indifferent to it, a child’s intelligence can see what is invisible to adults. (Montessori 1936, 103)

The prepared environment is the foundation of the Montessori philosophy and is based upon the belief that children absorb information through their senses. By interacting with the environment, children build knowledge of the world around them and construct their own self-identity. In classroom practice, this manifests in many ways. Children learn to use a variety of tools in the Practical Life Curriculum, preparing the hand for the delicate tasks of creation to come. Written expression begins with the practice of oral storytelling and sequencing activities. The Cultural Curriculum builds empathy through exposure to the countless cultures that exist throughout the world. And in the Sensorial Curriculum, children refine their senses and powers of observation to make comparisons and connections that allow for deeper understanding of concepts across all subjects. In each of these areas, and more, the materials made available to students are thoughtfully prepared, a task which falls to the Montessori teacher, often referred to as a guide. We take great care to create materials that are simple and aesthetically pleasing, something that children appreciate as they journey through their sensitive period for order. Our goal is not to dictate what the children learn, but rather to entice them to explore by creating an environment that invites curiosity.

The child, from birth, must be regarded as a being possessed of an important mental life, and we must treat him accordingly. (Montessori 1949, 67)



Figure 13. Student work from Erin Mergil and Jessica Pelizari's primary classroom

With so much order and preparation, it would be easy to assume there is no opportunity for mess in the Montessori classroom. Quite the opposite is the case, however, as Montessori students are given the freedom to explore any and all materials made available. As guides, we must curb our own desires to correct all but the most disruptive or unsafe behaviors, allowing instead for the children to develop their own concentration and therefore unlock their understanding of a chosen material, which almost always contain a control of error that allows a child to self-correct without the need for adult intervention. Montessori guides give frequent lessons on these materials, but our goal is to merely serve as the link while leaving room for the children to build their own knowledge of the intended skill or concept through repetition and experimentation. What the child may not realize is that this process of exploration results in practice and refinement of their developing skills. It is this refinement, and eventual mastery, that leads the Montessori student to the phase of creation.

It is thanks to the hand, the companion of the mind, that civilization has arisen. (Montessori 1949, 139)

Creativity in the Montessori environment reaches into every corner of the classroom. Many of the materials available to the students allow for some type of

creation, whether it is the construction of a tower using the Pink Cubes or writing a simple story with use of the Moveable Alphabet. Materials that intend to train a particular skill, such as pinpricking to develop hand strength and pincer grip, often become elaborate, self-designed projects (such as a pin-pricked map of the globe). Children's ideas are embraced and fostered through open-ended questions that allow them to think critically about the work they wish to do. This is often where process meets product, and it is on the child's terms as often as possible. These are often the works in which the children show the deepest sense of pride, sensing that they have mastered the skills necessary to independently bring their ideas to life, and it is through their creations that children begin to appreciate the value of self-expression.

The child brings us a great hope and a new vision. (Montessori 1949, 66)

What lies at the center of the Montessori pedagogy is the revolutionary beginning of our method. Maria Montessori challenged societal norms as Italy's first female physician and as a working mother, and she insisted that all children, even those deemed defective by society, could learn properly and successfully, if given the proper resources. Montessori herself went on a journey that eventually denounced colonialism and spoke against patriarchy in societal patterns. Her goal expanded to open children's minds to confront ethnocentrism through sensorial experiences of cultures and existences beyond their own. She reached these insights at the end of her life, yet she began first by turning the tables of a hierarchical society by insisting on a child-centered educational experience. She demanded dignity and respect by way of independence for children and asserted that the best gift an adult can give a child is to leave their ego behind and instill agency in the children that will render their adult guides nearly obsolete to their daily functioning as a community of child-citizens.

In a system of oppression, an educator is either a liberator or an oppressor. — *Lerone Bennett Jr.* (Ligon, 2018).

Heard in the hum of the classroom hive's activity is the inherently feminist nature of the Montessori philosophy. All materials, regardless of their subject matter or vocational possibilities, are available to all children. In a multi-age classroom, older children become mentors to younger children, and this allows for any child to be a master of a skill that they teach to another child—no matter their gender. Lessons in Grace and Courtesy, a foundational core curriculum area that models respectful communal behavior, occur daily, and empower all children to find their voice within their community while also listening to the views of others. When children become self-advocates who learn empathy, they can advocate for one another and are in less need of adult arbiters. This reliance on one another removes the need for adults to bring external bias to enacting justice in the

classroom and instead allows them to act as facilitators of restorative actions and conversations.

Above all, the children are respected, not for being rule followers or carbon copies of the adults in their environment, but as the small citizens they are, eager for the chance to discover and share themselves with others.

Mess and Making: Problems and Possibilities

Aditya Anupam, Pooja Casula, and Shubhangi Gupta

Aditya: Has “making,” understood as a feminist praxis, been a part of your experience as students, and if so how?

Pooja: It largely hasn’t. I was listening to Erin [Mergil] and Jessa [Pelizari]’s talk regarding their experience as early childhood educators and I was just so surprised at some of the methods they use to teach their students about feminist making. In their talk they discuss the importance of cultivating a sense of sustainability and utilizing Indigenous tools and methods to compare and contrast how students work with their modern counterparts. And I’m just so in awe. Erin and Jessa were talking about their experience as educators in New York. I went to school in the next state over, in Central New Jersey and I didn’t have that in my primary or secondary school experience. Clearly a lot has changed in twenty years. In their talk they describe their students becoming “scientist-artists,” and I think when I was in school I was conditioned to think that scientists and artists were mutually exclusive professions. Being able to foster such critical thinking about the material and making methods that you use is inherently feminist, and doing that from such a young age? That’s really incredible and I just wish I had a similar experience.

Shubhangi: Feminist making and understanding of materials as Pooja talked about was not even discussed during my undergrad in India where I majored in design. I was not aware such concepts existed. Our scope was limited to designing digital screens that were “intuitive, easy to use, aesthetic, and had utility.” But I gave little thought to the world outside of the digital screens and never really questioned the choice of my materials. I designed around what I knew, what was accessible, what was expected, and what was rewarded. However, after being introduced to the concepts of feminist making, I stepped into this world where I started reflecting upon the situated nature of materials. During my MS project, I attempted to be critical of my work, its form, the materials I was using and its implications. But while I knew in theory what I was striving to do, I found it very difficult to do it in practice. It was tough to suddenly try and push my boundaries without access to many examples of projects that did the same. But today, I found a treasure chest full of such examples. The work presented here was so helpful and inspirational as they demonstrated concrete works that came out of mess

such as Nettrice [Gaskins]'s AI portraits and Anne [Sullivan]'s quilt. These designs and their processes can be messy, but they were effective and necessary. And I hope I am able to do that with my work someday.

Shubhangi: Speaking of messiness, what do you both think about messiness or uncertainty in your own work?

Aditya: As an undergraduate student in India, my experiences resonates well with that of yours, Shubhangi! And that motivated me to attempt to be deliberate about messiness as part of my instructional strategy as a graduate instructor at Georgia Tech. In a sense, my approach is aligned with Erin and Jessa's work with messiness in the classroom. They begin with messiness and let students make sense of that messiness in their own personal and creative ways. My approach adds to this by helping students also learn to make things messy—that is, unsettle the status quo. For example, in my courses on game design, students often come to class certain that they know what a “game” is, having played games all their life. My strategy then is to present them with different definitions of games and ask them to find outliers and exceptions that break those definitions. This process challenges students' underlying beliefs and assumptions about games. What really is a game? Over the duration of the course, as my students play, critique, and design games, they develop and redevelop their understanding of them. Their understanding of games moves from a set of logically consistent rules, to a medium of persuasion, to a means of cultural expression, to an embodiment of sociopolitical values, and so on. Each vision and revision, settling and unsettling, helps them learn to navigate the complexity of games and come out of the course with an expanded sense of their possibilities. Based on this experience, I think that both processes—making sense out of mess and making mess out of sense—are essential as a dialectic approach to learning as Professor Parvin puts it, in contrast to the dominant ready-made approach that strives to be free of mess entirely.

Pooja: Yeah, I think Aditya's points about the need to break free from dominant ready-made approaches is very relevant to my work in online toxicity and content moderation. Determining whether a social media post is hate speech or a threat or just a rude comment is naturally an ambiguous process and depends heavily on the context in which it was made. But a lot of the times, social media platforms just want a mess-free, “yes/no” way to do this process, which, I'd argue, is impossible to do. There needs to be a way to incorporate uncertainty and messiness as part of content moderation, because ignoring it doesn't make it go away. One of the central contributions of my research so far is to illustrate the messiness of threat moderation and contrast it with the seemingly neat and comprehensive policies. Similar to what you were saying, Aditya, I've made an attempt to unsettle what has been established as status quo. But the process of resurfacing mess itself is a messy process and I am still trying to make sense of it.

Pooja: Given the talks that we've seen today, moving forward, how would you both engage critically in feminist making and messiness?

Shubhangi: The conversations we had today certainly motivated me to embrace messiness as part of my design process. But to be able to practically do so, work environments will have to be supportive of such messiness and uncertainty. I want to be part of a community that not only accepts my messy process but encourages me to make visible the mess that I make. The visibility of the mess, I believe, will only enrich my work and will provide meaningful context to it. But all this will take time and patience. Making meaning out of the mess will take time and patience. Today, I'm not sure how much the industry supports such an environment. The expectation of fast turnaround times and the quantitative measuring of success may leave little room for me to design products for broader use that are feminist in nature. However, I hope that as designers like our speakers and their students continue to support messiness and create work environments that foster messiness, I will feel more supported in engaging critically with feminist making to my full potential and without hesitations.

Aditya: Yeah, Pooja, I agree it's really difficult to do it. Being messy is important as we discussed earlier, but some order and system for making a mess is also necessary. Messiness for messiness' sake is not a productive educational approach because it can drag everyone down a rabbit hole (that is familiar in some postmodernist approaches). For example, I can have my students continually unsettling the idea of a game, and then unsettling the process of unsettling games, and so on. But that isn't really meaningful because no one comes out of this exercise rich with ideas and possibilities of what games can do, but rather they come out with a sense of exhaustion at endlessly questioning with no interim resolutions. At the same time, guiding students through the process of making a mess in a tight and structured way is also problematic. You can't make a mess if you are told exactly how to do it. It won't be a mess any more but rather a procedural deconstruction. I think this is the key paradoxical challenge: How can we learn to be messy in a systematic way?

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Notes

¹Gloria Anzaldúa reminds us that the act of writing is a "gesture of the body," states that the body is "the ground of thought." My multidisciplinary creativity is

inextricably connected to my scholarship, and songs help me and those listening to ground ourselves in body (Anzaldúa 2015, 5).

² Many activists and social groups are working tirelessly to address these issues through everything from changing laws (such as child-custody or divorce laws) to public education and grassroots social change.

³ The project website, including detailed information and free templates, can be accessed at <http://www.rebeccarouse.com/feminist-philosophical-toys.html>.

⁴ Our toys build on the history of the Victorian “philosophical toy” as described by Tom Gunning (2012) and are inspired by thinkers new and old from Heinrich Blasche and Friedrich Fröbel (see Iurascu 2021), to Maria Montessori (Montessori and Carter 1936), Donna Haraway (2016), Karen Barad (2007), Bonnie Mak and Julia Pollack (2020), and Anna Hickey-Moody, Helen Palmer, and Esther Sayers (2016).

⁵ For readers who may be unfamiliar, design cards are often advertised as quick and economic tools for design. Examples include the [IDEO Method Cards](#), [Grow a Game Cards](#), and [Envisioning Cards](#) as well as more recent variations such as the [Tarot Cards of Tech](#).

⁶ In the early 1900s, Maria Montessori designed and patented materials for teaching arithmetic, geometry, reading, writing, grammar, and more. These materials are still in use in many Montessori schools today.

⁷ Feminist book makers and book artists have a long, rich history of subverting, re-making, innovating, and troubling the book as a form, and also revealing the ways books have been instrumentalized to legitimate a narrow understanding of knowledge production, positioning the act of inscription and the textual artifact in opposition to other ways of making-as-knowing. See Drucker (2004) and Fanni, Flodmark, and Kaaman (2020) for extended discussions of this history in feminist artist books, printing, and typography.

⁸ Related scholarship on feminist approaches to the book is discussed including: Johanna Drucker’s *The Century of Artists’ Books* (2004); Jessica Helfand’s *Scrapbooks: An American History* (2008); Elizabeth Groeneveld’s *Making Feminist Media* (2016); Maryam Fanni, Matilda Flodmark, and Sara Kaaman’s *Natural Enemies of Books: A Messy History of Women in Printing and Typography* (2020); and Max Liboiron’s “Exchanging” (2020).

⁹ This folded book form resonates with the concept of agonism on an etymological level. To be in accord is to agree with. The name of the musical instrument, the accordion, likewise references the concept of being in tune, which

here we can understand as being “in tune” with or in harmony with another’s perspectives or positioning.

¹⁰ For a review of reductive interpretations of intersectionality in mainstream discourses see, Carastathis (2003) and May (2014).

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