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ARTICLE

Feminist Philosophical Toys: Playful Companions and Live Theorization

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Abstract
What are the matters of philosophy? How do they shape how philosophy is practiced, what kinds of knowledge it produces, and who counts as a philosopher? The dominant matters of Western philosophy, or its epistemic companions, are books and journal articles even when dialogic and oral traditions are acknowledged or referenced. In this paper, we argue that alternatives would be necessary if philosophy were to be a more capacious and welcoming discipline. We introduce Feminist Philosophical Toys as one such alternative that challenges what counts as serious philosophy by being seriously playful. The toys foreground the oral and the dialogic while reflecting on and committing to engaging materiality, record-keeping, and record-making. In doing so, the toys challenge the dominant form of philosophy and its mechanics of knowledge-making as they offer an alternative way of doing philosophy that can be transformative for the next generation of feminist scholarship. The dialogic, embodied, and communal interaction with paper, with theory, and with others is meant as a practice of *live theorization*, opening philosophy to a new groundedness and accessibility, centered in the ethos of feminist epistemology, while at the same time pushing against fetishization of matter.

Our entanglements with matters of philosophy and design

A room of one's own (Wolfe 1929) and pieces of scrap paper (Lorde 2012, 116). The early morning time (Morrison, 2003 (1993)) and the *oppressor's language* (Rich 1984). These are the matters of philosophy, hidden from purview and still invisible to those of privilege. They are what matters to (feminist) philosophers and for (feminist) philosophy. That is, the kind of philosophy that is in touch with reality. The dominant matters of Western philosophy, or its epistemic companions, however, remain books and journal articles. The labor conditions of academia maintain the dominance of the written text by devaluing, dismissing, or otherwise disregarding other forms of knowledge making. Philosophy continues to be a "privileged discourse," to use bell hooks' words, and filled with "exclusive jargon," which is often legitimized, primarily, within academic environments in the Global North.

We write as educators drawing on experiential knowledge of our own and observations of those around us, especially our students. We both experience the tensions and joys of growing up, living, and working at both margins and centers. In the context of paper and the page, the center affords a type of dominant attention but the margins provide space for possibility. As women working in male-dominated technological disciplines, it is no accident that we chose paper as our main medium. Caught between disciplines and cultures and constantly struggling against norms and values that erase or actively negate who we are, we both have first-hand experiences of questioning the validity of what we know and our ways of knowing, too. Our individual pathways into this are markedly different, yet strikingly similar. And we see parallels in the expressions and experiences of our students, especially those who find themselves pushed to the margins for one reason or another. A short vignette from a recent paper captures one such experience:

> When the time comes—as is ubiquitous in every design program—you will have an assignment in which the creative brief calls for you to design something that explores your identity. … Be ready for the rude awakening during the final critique, when your white professor—and it will most always be a white instructor—is dismissive of and/or indifferent to your final comp. Your professor will make it clear, in not so many words, that your self-portrait isn't sufficiently good, because your biography, your lived experience, is too foreign to him; something he cannot relate to. … you will make an unspoken agreement with yourself: *That your true authentic voice will need to be neutered in order for it to pass muster with your white professors.* This will be a recurring performance that you play out throughout the rest of your design education. (Jones 2022, pp. 142–43)

Hyper-visible and invisible at the same time, the experience Jones recounts resonates for many who experience the outsider–insider double consciousness, such as theorized by W. E. B. Du Bois. The experience of crossing between worlds has a particular valence in our disciplinary contexts that traverse design studies, game studies, science and technology studies, and adjacent disciplines. Design, engineering, and other productive arts are modes of world-building rooted in ethics and politics. Whether you are designing a house, a city, a new social platform, or an algorithm, you have to define, rethink, or commit to a vision of what may constitute a good life, a question that is at the heart of ethics and politics. Products and technologies that are the outcome of design practices impact many people's lives and livelihoods. This raises epistemological questions such as who is a designer, what kinds of evidence should design draw upon, and how can processes and practices of design be more democratic to ensure its products reflect the needs and desires of diverse people and communities. In other words, design practice as a discipline and designers as individuals and communities are implicitly and explicitly engaged with philosophical questions and philosophical inquiry. These questions enter design education in the context of designing new products and technologies and specific methodologies.[1] (It is important to note here that we refer to design beyond its narrow definition and application in industry settings. Rather our engagement is rooted in the broad definition of *design as a liberal art*. That is, we understand design as a structured way of thinking and acting capable of (re)framing problems and

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conceiving the kinds of syntheses that manifest in products, arguments, and courses of action (Buchanan 1992; Parvin 2019)).

While a discussion of the nature and practices of feminist philosophy is outside the scope of this paper, we would like to highlight an understanding of it as "in part" experimental and provisional and in this way sharing many affinities with art and design. Far from being stable and solitary, feminist philosophers remind us that philosophical practice and philosophical concepts (not unlike products of art and design) constitute our *becomings* (cf. Diprose 2000; Roy 2018; Dewey 1934; Ratto 2011). The creation of concepts is intertwined with social encounters and experiences. Still, in art and design classrooms, philosophy is often applied rather than engaged fully as a practice. Philosophical texts might be added to curricula for students but the engagement is limited to thinking through their potential applications and implications *to* design as opposed to a more active engagement and conversation across the disciplines or critical perspective on the workings of philosophy *in* design.

There is a big gap between an understanding of design as a way of doing philosophy with liberatory potential, and philosophy itself as embodied, situated, and experimental practice grounded in specific social, historical moments with their own defining problems and dominant modes of art and design education that simply bring philosophical texts into the classroom. The latter risks merely importing feminist philosophy into the classroom, rendering it as theoretical filter for what students are experiencing or even worse appropriating it into patriarchal structures of knowledge-making. This approach fails to foster thinking and imagination that is possible both with philosophy and design.

What if we could facilitate meaningful engagement or serious play with the matters of feminist philosophy? Can we conceive of educational materials collaboratively constructed by hand, in a personal gesture of making that could cultivate a practice of live theorization in the spirit of play and conversation?

Serious play

"Do you want to play?" is one of the most exciting and scary questions one can ask of another. The vulnerability of the question opens the asker to possibilities of both profound rejection and deep connection. In a play community, as theorized by Bernard De Koven (2013), the ethos of inclusion dominates the ethos of the rule system. Whereas a game may remain rigid, ejecting the less masterful players in favor of the most facile, the interaction of play is flexible when inclusion is centered by bending and stretching to keep the players in play, together.[2] In play, we carve out a space in but apart from everyday life, where we may open ourselves to very real experiences of joy, transgression, humor, and co-creation. Dominant modes of education are often un-playful. Indeed, it is gamification, not playification, that has become the buzzword connecting education and games with rewards and failures as its core mechanics that mold the player into the demands of the game. This un-playful approach to education can be seen even in the more supposedly playful disciplines, such as games and design. An un-playful approach is narrow in its imagination of how it "produces" subjects who "fit" within an (often industrial) pipeline. A playful approach is expansive, and under no illusions about education as a Pygmalion-like force shaping the malleable clay of the student. A playful approach can still be serious, and most often is, such as in the *deep play* observed by anthropologist Clifford Geertz in his 1973 chapter on the mode of play in a Balinese cockfight, in which high stakes gamblers enter risky play not for the outcome alone but for the cultural capital of being engaged in complex play itself; or, as in the seriously

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playful approach to design articulated by graphic designer Paula Scher, who in her TED talk proclaims, "The art of serious play is about invention, change, rebellion—not perfection" (Scher 2008).

With this notion of the seriousness of play in mind, instead of a misunderstanding of play as frivolity or infantile, we have developed Feminist Philosophical Toys. Toys, as opposed to rules, are the companions of play. While rules bound the scope of the game, the toy extends play, inviting us into the community of play, acting as our avatar, and providing the friction of physical materiality to push against. Playful objects have a long history in education. We build our toys, in part, on the history of the Victorian "philosophical toy" as described by Tom Gunning (2012). These engaging nineteenth-century luxury-object apparatuses such as the zoetrope and stereoscope were brought into the Victorian home to teach principles of human perception and disseminate the practices and principles of the scientific method. Even earlier than the philosophical toy, we find inspiration from the use of paper cards as a valuable DIY pedagogical material in the work of eighteenth- and nineteenth-century educators Bernhard Heinrich Blasche and Friedrich Fröbel (Iurascu 2021). They viewed the application of the paper material to the work of education as an integral move for shifting pedagogy towards an acknowledgment of the entanglement of mind and body in producing knowledge. Iurascu writes:

> Prefiguring ideas that would be amply theorized by Fröbel and his followers, Blasche's (1766–1832) notion of education challenges neat distinctions between manual occupation and labor of the mind, offering, instead, concrete applications for "die intellektuelle Bildung durch mechanische Beschäftigungen zu befördern" (how intellectual education can be conveyed via mechanical activities) … Blasche's point, then, is not to claim a place for manual crafts among the "fine arts" but rather, to align them more closely with the Kantian "mechanical arts," and thereby confirm their educational relevance and capacity to skillfully produce objects that are "fully adequate to their concept." (Iurascu 2021, 210–12)

An even closer link with our approach can be found in the work of late nineteenth-century and early twentieth-century educator Maria Montessori (Montessori and Carter 1936). In the early 1900s, Maria Montessori designed and patented materials for teaching arithmetic, geometry, reading, writing, grammar, and more. Her inventions were patented in two US patents, and eight in Britain.[3] These materials are still in use in many Montessori schools today. Feminist Philosophical Toys build on this legacy but transform it such that it resonates with contemporary feminist scholarship such as work from Donna Haraway (2016); Karen Barad (2007); Bonnie Mak and Julia Pollack (2020); Anna Hickey-Moody, Helen Palmer, and Esther Sayers (2016), and more. In contrast, with the eighteenth- and nineteenth-century examples, our Feminist Philosophical Toys are flexible and accessible paper-based objects that push back against scientific positivism as it manifests across disciplinary boundaries inclusive of art and design. They also challenge the book as the primary material of the philosophy discipline at large. In doing so, our toy series seeks to foreground the connections and possibilities across feminist perspectives and methods at the intersection of philosophy, pedagogy, and design.

We offer here a series of eight toys for playing with and in feminist philosophy. The toys are not tools, inert objects to be wielded or used in service of another. Instead, the toys are companions, things to think with, enigmatic invitations into the playful and personal as threshold to considering core concepts of feminist philosophy. The toys are presented within a frame that emphasizes the communal and dialogic, through encouraging deep presence with others and questioning for understanding across differences. While the toys are accompanied by suggested bibliographies, the toys are not companions to texts that house the "real" philosophy. The toys are, themselves, philosophy—independent of text. As such, there is a deep irony in writing a paper about the toys. Textual explanation is only helpful to a limited degree in understanding the toys, because the toys are constituted in the process of making and playing with. In other words, this paper is not a toy, and can only share ideas around the toys, not provide access to or a substitute for playing with the toys themselves.

Once constructed, even the object of the toy is not the toy. Instead, the toy comes into being through play and action. The toy is a performative form and in this sense does not exist outside of being played with. This is something we know on a deep level about toys, and an idea that shows up in popular culture representations of toys, such as the toy characters in the Pixar *Toy Story* movie series. The Pixar toys all long to be played with and feel most alive when at play. It is ironic, though, that the Pixar toys express this feeling of aliveness by playing dead. Feminist Philosophical Toys (FPTs) are active when in play, and not in a feigned state of necrosis. Indeed, the living nature of the FPTs is emphasized in the eighth toy, which focuses on the more-than-human entanglements of the paper material used to construct the entire toy series.

Unlike industrially produced toys, our toys are made by hand in DIY fashion, by the players. The toys are created with humble materials (paper) and presented as a series of template instructions that makers are encouraged to iterate, push against, and play with. The flexibility and ubiquity of paper is a major affordance of the toys, and playful subversion of the academic paper. The intense personalization of the toys resists commodification and pushes back against dominant and often damaging notions in design of universal user types or imagined personas. The generalizable is replaced by the particular, emphasizing individuality but within the frame of community, as the toys are intended to be made and played with in conversation with others. The fragility of the paper toy suggests a limited temporality, shifting focus to the process of the toy making as opposed to the generation of a durable end product. If the philosophical toy of the nineteenth-century illustrated optical principles through interaction, the feminist philosophical toy creates philosophies and paper artifacts through conversation among people with concrete histories, memories, ideals, and desires, who are bound by time and place.

In action, the FPTs mediate conversations and imagination, working as companions that can help decolonize educational contexts and disciplines by acknowledging the body, emotion, spirituality, experience, and materiality as epistemology makers, de-centering the book/text. Semiotically, text is a sign, whereas the toy is indexical, bearing traces of the maker. This stands in contrast with the mainstream academic text, which if performed "correctly" or in accordance with dominant values in the Western academic tradition, is designed to erase all indices of the writer. This practice of authorial erasure can be connected to fantasies of objectivity and logics of whiteness, that through dominance seek a carefully constructed, normalized invisibility that is maintained by the often violent marking of others.

A series of "ghost figures" (cf. Subramaniam 2014) accompany the toys, providing restorative connection with feminist figures and ideas that remain outside of scholarly publications or official historical records. By ghost, we mean both literal and metaphorical

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hauntings or apparitions of dominant culture and history. This is a gesture toward a recognition of the always-partial nature of writing and conversation. It also underlines the ongoing struggle for remembering and revival of silenced voices, ideas, and practices.

The toys have been piloted both in the US and in Sweden with a range of ages from high school through college, also with adult learners, and in disciplines including HCI, game design, art, and education. For three of our toys, we present examples of what one of our students made as an illustrative showcase. We note that the personal and cultural background of students as well as the class environment and facilitation are key in shaping the character and quality of conversations around the toys.

Toy #1: Book Making

Philosophy is centered on the book as its primary material. The book form, however, has a rich history of people doing other things with it. The legacy of movable and popup books extends to the Middle Ages, with a range of complex paper forms that expand the flat plane of the page to invite the reader into interaction in physical motion. This history has been traced to tease out design strategies for interactive media today from these historical forms (Rouse and Holloway-Attaway 2020). The contemporary form of the art book is predominantly grounded in feminist book making contexts, as discussed by Johanna Drucker (2004), and builds on a long history of women book makers and printers that is under-researched and unknown with a few exceptions such as the recent scholarship by Fanni et al. (2020). Feminist book makers and book artists have a long tradition of subverting, remaking, innovating, and troubling the book as a form. They have revealed how 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. Other branches of the book history tree expand the codex in ways that trouble notions of authorship, and invite co-creation, such as commonplace books and related forms like mail art. So we might say that feminist praxis has a long history of playing with the book, rendering it as a toy or play object.

The history of the commonplace book began as a metaphorical "place" and method of storing and organizing information, and was conceived of in the classical period, as written about by Aristotle and Cicero. Their theoretical book did not take actual, material book form until later in the medieval and early modern periods. This materialized commonplace book was a place to copy down, place in relation, and variously organize extracts from works by others, to be used later in constructing your own argument (or book). The commonplace book was often created well before the draft phase or even the concept phase of a later book project. It was created as a space of early germination. And so the form was not focused on product (eventual manuscript) but rather on process, a slow process at that, which we might understand as a kind of pre-citation technology. Later Renaissance-era versions of the commonplace book made by scholars organized quotations into a grid under topic headings. In 1670 John Locke published a book titled, *A new method of a commonplace book*, in which he laid out complex and detailed instructions for, organizing information via an index. We can see resonance between this legacy of the commonplace book and the contemporary book's popular forms. For example, the practice of bullet journaling, like Locke's approach, values rigor, complexity, and organization, but also shares much with the scrapbook, journal, and diary form, as well as the modern preoccupation with personal metrics, tracking, personal data, and personal measurement. Jillian Hess has noted the gendered usages of the terms "commonplace book" versus "notebook" by creators, pointing out that women more often labeled their works commonplace books, emphasizing intertextual entanglement, while men more often labeled their books as notebooks, foregrounding a frame of single authorship (Hess 2018).

By the nineteenth century we see the rise of both printed anthologies as well as scrapbooking, two different practices of collaborative authorship, both made possible by the proliferation of print. And by the 1850s, authors such as John Todd in his 1857 "index rerum" suggested the annotated bibliography and index as replacement for the commonplace book practice, to make the work more efficient and less laborious. This suggestion appears in tandem with the refinement of scholarly collection, annotation, and indexing practices to align with values of efficiency dominant in late nineteenth-century industrialization.

Scrapbooking, as a related form to the commonplace book, has been suggested by Hess (2018) as a multimedia version of the commonplace book. Like the commonplace book, scrapbooking was also used as a scholarly tool, connected with practices such as extra-illustration or grangerization. In the case of grangerized books, a published work is unbound, supplemented with additional illustrations or other materials by the addition of new pages, and then rebound, often as large multi-volume sets. In the case of scrapbooking, Shakespearean scholar James Orchard Halliwell-Phillips, for example, created a set of over 200 scrapbooks as part of his scholarly process.[4] But when the creative un-making, recombination, and making of books is done in the pursuit of knowledge, expression, and connection, perhaps we might understand these cut-and-paste practices as transformative, as opposed to destructive. Seen in this light, the practice of extra-illustration can be understood as generative, much in the way the practice of scrapbooking has been theorized by scholars such as Jessica Helfand (2008). In focusing our toys on handmade as opposed to industrial processes, we shift away from "machine time" toward the "real time" of human practices of thinking and writing. We render books as toys and book making as play to invite our students into the process of writing and theorizing that may otherwise seem inaccessible or intimidating.[5]

To further disrupt the idealization of sole authorship and emphasize the toys' value as media for meaning-making in and with community we suggest Toy #1 be circulated around the group, inviting multiple contributions, or even sent in the mail to others, with an aim for it to be returned by the end of the toy series. In this way, the toy also connects with the tradition of correspondence art or mail art. Mail art is an art tradition that is also related to collage (collage is another paper practice that has scholarly roots in the botanical paper mosaic work of Mary Delany,[6] who is credited with inventing the collage form in the 1770s), as well as to book art. Mail art has its more immediate history in Dadaist and Russian formalist art practices but was brought to popular consciousness in the mid-twentieth century as a collaborative outsider art practice with a unique element of chance: putting the artworks at the mercy of the postal system.

Ray Johnson was a key figure in midcentury mail art and founded the fictional New York School of Correspondence as a playful way to describe the ever-growing network of mail artists. Johnson described the school as follows: "The only way to understand something of my school is to participate in it for some time. It is secret, private, and without any rule" (Johnson in Poinsot 1971, 120). Johnson is describing a seriously playful, seriously flexible form of expression, and one which constitutes meaning-making through the experience of participation in the form itself, resisting a complete understanding through description alone. Like the commonplace book, mail art is a slow form of communication, in opposition to zoom, email, SMS, social media, and the telephone. But distinct from the commonplace book and extra-illustration, which were more often the practices and property of an intellectual elite, the common call for mail art show entries is the egalitarian "No jury, no fee, no return."

The Traveling Paperology Book[7] is an example of a collaboratively created book that combines all elements discussed above, including movable and pop-up three-dimensional forms, enclosures, a tunnel book, playable board games, maps, miniature books, cut-ups and paste-ins of other documents, photographic and cyanotype images, and more. Initiated by Rebecca Rouse during the pandemic to facilitate collaborative making for the Paperology Research and Activity Group, the book has been mailed around the world to over 20 contributors in the past few years, and is still being added to. The work is a site for collective memory, knowledge generation, affective experience, and slow dialogue as each new contribution resonates with the ones that have come before it. In its initial design, Rouse's intention was to create multiple paper structures that would invite different forms of inscription, play, and construction. Similarly, while our first toy in this series is a book that is simple in construction, as an accessible invitation into making, it is flexible enough to allow for expansion into the diversity of forms described above. This first toy could be kept private, circulated among the group engaging the toys together, used as starting point to invite communal authorship, or even circulated beyond the group/classroom to a wider community of potential contributors.

The series begins with making a handmade booklet with a sewn binding. Participants are introduced to the basics of book making, which also provides them with a surface for keeping notes, sketches, or other materials used in developing the subsequent toys in the series, perhaps in collaboration with others (see Figure 1 and Figure 2). A basic set of materials is needed: interior pages, cover paper, needle and thread. 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. This is an invitation for a collective conversation about knowledge making in different cultures and communities, and in academia too. In tandem with the making of Toy #1, related scholarship on feminist approaches to the book may be 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).

For the first toy, the ghost figures are the women who sewed concealed pockets to carry all kinds of objects including books, almanacs, fountain pens, and papers for writing memoirs or letters in the seventeenth and eighteenth century (Fennetaux 2008) and books that were designed specifically for this purpose (Connor 2004, 5) and who gave us the term pocketbook that is still in use.

Toy #2: Oracle Cards

The history of cards marks an important distinction between the playing card and cards used for spiritual inquiry. The playing cards are game components, shuffled as an instrumental way of randomizing value to balance the game. The oracle cards are used as a companion to ritual practice. The shuffling gesture in the ritual context is performed in an intentional and meaningful way. Looking back at the history of tarot

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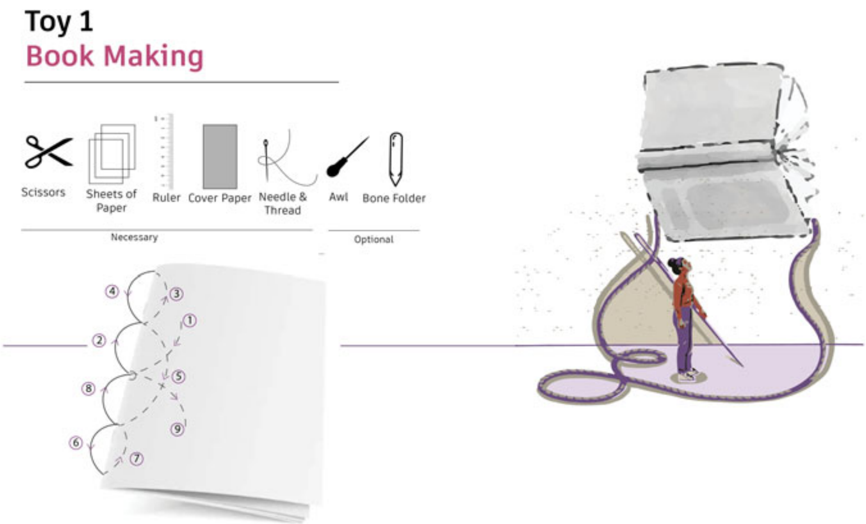

Figure 1. Instructions for Toy 1: Book Making. *Illustration by*: Simin Nasiri.

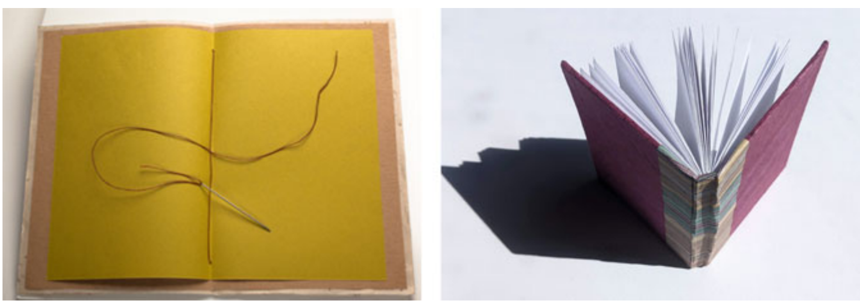

Figure 2. Examples of books designed by students. *Illustration by*: Rebecca Rouse and Sylvia Janicki.

cards, their use in the West has been traced to late fourteenth-century France (Hargrave 1930).[8] Through the nineteenth century, the cards were hand-colored and hand-cut even when mass produced through print technology onto large sheets, meaning they often maintained a DIY or hand-done element. Card designs were culturally and temporally situated, with human figures shifted to represent contemporary rulers, or, after the French revolution, substituted philosophers or other public figures on the cards (Hargrave 1930, 50). By the 1640s card decks were designed with explicitly educational aims. These included decks dedicated to instruction in geography, history, and mythology (Hargrave 1930, 58–62). Often these decks were produced with an accompanying small book that provided instructions and context for use, illustrating the material entanglement of the book and card form, which were both connected to the development of mass-produced paper, ink, and printing processes. By the seventeen century more complex configurations appeared, including a deck of cards designed for teaching military science, intended for use along with dice, presaging the later Prussian

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kriegsspiel. In the nineteenth century card decks were designed for children, linked with the emergence of the children's literature publishing industry. These decks sometimes included playful form, such as circular cards, and were designed for everything from interactive storytelling to literacy to music education (Hargrave 1930, 66–76).

The second toy in our series, oracle cards (see Figure 3), are a satirical play on the proliferation of design cards commonly used in much of mainstream vocational design education and industry, and offer a critique of the ritual of design short-cuts.[9] These mainstream cards are designed as quick toolkits/checklists that designers may use to inform their practice. Indeed, coming from our shared context in design education, this toy was where our project began. This toy is offered as an ironic aid to *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 but through the agential practice of designing the cards oneself. In doing so, it is meant to help the player foreground seemingly obvious issues, challenges, or frustrations that remain unaddressed nonetheless. Indeed, many artists have been inspired by the tarot form, not only creating artist tarot decks but also engaging the tarot across other forms such as literature, sculpture, and even fashion (Bradley 2022). Contemporary card decks that more explicitly center conversation and collaboration include *The Antiracist Deck* developed by Kendi (2022) and the decks that are part of Terresa Moses' *Racism Untaught* Toolkit (2022, 149).

In the case of the second toy, the act of creating the cards oneself, as opposed to working with a pre-printed deck, helps to conceptualize potential failures, both disastrous and pedestrian, of one's own making. 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 (see Figure 4). In the case of the industrially produced design cards, those concerns, just like the cards, are shuffled as random haphazard non-sequiturs that may or may not be taken seriously at the whim of the technologist. They are certainly too easily dismissed and displaced. Examples include the need to consider the long-term impacts of technology as discussed by Jasanoff (2016), and how seemingly innocent concepts such as "unintended consequences," work to forego responsibility (Parvin and Pollock 2020).

The ghost figure for this toy is the archetype figure of the seer, often a female character in myth and legend. Pamela Colman Smith is the little-known designer of the most common tarot deck in use today, known as the Rider-Waite deck, a naming convention that has erased Smith's contributions. Colman Smith's prolific creative work spanned publishing, illustration, writing, art and design from the 1880s to the 1950s. Elizabeth Foley O'Connor has theorized Colman Smith's now iconic tarot designs as part of the feminist work from throughout her life, which also included the design of activist posters in support of women's suffrage, and archetypal imagery of women across many of her artworks (Foley O'Connor 2021).

Sylvia Janicki made the set of cards shown in Figure 4 with the following explanation:

> This set of cards consists of important but often overlooked considerations for technological design. I grouped them into four categories: locality, temporality, positionality, and commitments (some overlap). Locality includes conditions unique to specific places, which can help resist digital universalism. Some examples include cultural customs, local flora, and colonial history. Temporality includes various changing conditions in a place over time. For example, seasons,

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Figure 3. Instructions for Toy 2: Oracle Cards. *Illustration by*: Simin Nasiri.

Figure 4. Cards made by Sylvia Janicki.

time of day, and climate change, which can require different considerations in design. Positionality reflects important differences in social groups, including age, race, ability, and gender. Commitments reflect different principles and ethics. For example, relationships to more-than humans, joy, and social justice.

Toy #3: Experience Frames

The third toy in the series which we refer to as Experience Frames centers *that which defies expression*, foregrounding our experiences as they relate to specificities of our positions and histories (as opposed to essentializing categories of identity). Experience Frames work to explore the concept of positionality both in knowledge-making practices and broader experiences of oppression (Harding 1992; Crenshaw

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1990; Takacs 2003). The toy takes inspiration from nineteenth-century movable books, such as die-cut accordion books by Lothar Meggendorfer. The form of the toy aims to surface and challenge reductive readings of intersectionality as an additive and stable notion of identity (e.g., race, sex, (dis)ability) and instead highlight the simultaneity and variety of experiences of oppression (e.g., racism, sexism, ableism) within everyday encounters (see Figure 5).[10] Through the making of this toy, we seek to draw out the idea of *the oppressors within* each of us no matter our location. In doing so, we invite participants to critically engage the history of intersectionality and explore both the pains and joys of centers and margins (see Figure 6).

Theoretically, this toy engages with both potentials and challenges intersectionality as a spatial analogy for the compounded effect of racism, sexism, and other modes of oppression. This analogy has a rich history and has been the topic of philosophical discourse and reflection. One of the core ideas is that the middle is both rich and ambiguous in a way that cannot be captured by just adding up the constitutional modes of oppression (e.g., racism + sexism + ableism). However, as philosophers have pointed out (cf. Carastathis 2013), the widespread adoption of intersectionality as a metaphor—especially when done without attention to its rich history—has worked to reinforce/reify categories of race, gender, ability as opposed to the experiences of racism, sexism, ableism. Intersectionality has come to stand for a reductive analysis of difference that reinforces essentialist categories, in contrast to the aim of capturing the simultaneity of the experience of oppression as rooted in the systemic/cultural. Unlike its reductive interpretation, Crenshaw's point is that what's in the middle defies expression.

Another distortion that the Experience Frames seek to overcome is that of the "pathological gaze," framing subjugated knowers/marginalized groups as problems. Not unlike the fixed single-axis categories, the pathological gaze diverts attention away from structures of dominance and systems of privilege. Rather than approach intersectionality as a problem, we emphasize the idea of thinking with and against and seek to draw out the capacious and joyful experiences of the margins (hooks 1989). The intersectionality toy does that, in part, by foregrounding storytelling as central to advancing social justice grounded in principles of reciprocity, responsiveness, and communion (Parvin 2018).

Our ghost figures of intersectionality for the third toy are women who experience, express, and work against compounded effects of systems of oppression, in theory and practice risking their lives and livelihoods. Inspirational among them are Combahee River Collective, a Black feminist lesbian socialist organization active in Boston from 1974 to 1980, who argued that neither the Civil Rights Movement nor the feminist movement responded to their needs and experiences (Taylor 2017). This work has been carried forward by many, including the scholars and artists in the collection titled *This bridge Called My Back*, (Anzaldúa and Moraga 1981). This is the work that continues to this date across the world, as in the case of the uprising by the Iranian women at the time of the writing of this paper. Their slogan: "Women, Life, Freedom."

Sylvia Janicki made the cut and fold piece shown in Figure 6 in response to the Experience Frames exercise. She writes:

> This design reflects some of the most important experiences and aspects of my life. The first frame represents parts of my childhood that were spent outdoors (in particular, in my favorite park that my dad would call Forest Park, where he would push me on a swing. My dad also used to call me forest girl, which is what my name, Sylvia, means). The second frame represents my experience growing up

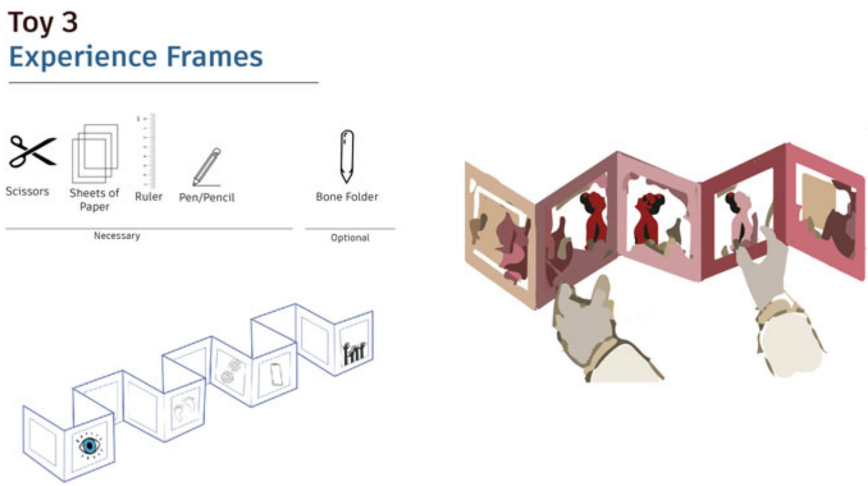

Figure 5. Instructions for Toy 3: Experience Frames. *Illustration by*: Simin Nasiri.

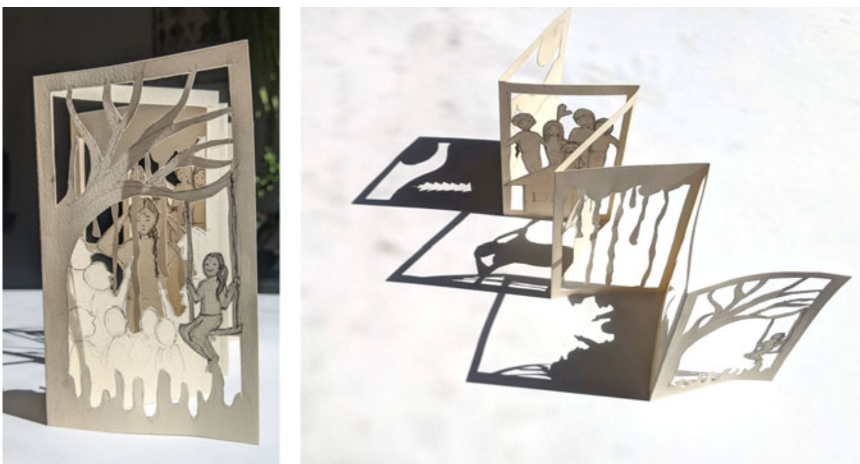

Figure 6. Sylvia Janicki's Experience Frames response.

in Taiwan as a mixed-race person, which attracted frequent attention. The third frame reflects the years I lived in Seattle, which encompassed a particularly gloomy phase of my life, both literally, because of Seattle's rainy weather, and metaphorically, as I became ill while living there. The fourth frame depicts my ongoing, up-and-down struggle with chronic illness that has changed my life path in many ways. The fifth frame is my family and my support system—my husband, sister, dad, mom (who continues to support me in different ways even though she has passed away), and my dog :). The final frame represents Taipei, my hometown, where I was born and hope to return to.

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Toy #4: Circular Conversations

Circular Conversations is our fourth toy, turning to feminist scholarship that foregrounds the circularity of struggle, structures that maintain the status quo, and possibilities for breaking free from those oppressive cycles. The theory that animates this toy is in part captured in the concept of "Complaint as Feminist Pedagogy" as described by Sara Ahmed. The core idea is that we learn about "conditions of social membership" as we challenge them and/or try to break free from them. The power of the larger social group comes to the fore, in part, through the illogical/circular nature of conversations we have with those that hold authority. More broadly, this toy aims to advance the liberatory potentials of performative practice (Boal 2006), and scholarship on the cyclic natures of both socialization and liberation (Harro 2000a, 2000b).

Inspiration for the toy is drawn from medieval volvelles as well as more contemporary twentieth-century "circle charts." Some of the earliest volvelles appeared in medieval books and were used for calendar or other astrological calculations. This volvelle is for expressing a circular conversation (the flip side of which is a rant) to aid in pinning it down, with the possibility to change or let go of the conversation. The volvelle mechanism is simple and interchangeable, multiple circular discs can be made and switched out to allow for the materialization and exploration of different circular conversations. Each comes with its own set of instructions for use (see Figure 7 and Figure 8).

For example, one circular conversation reads:

> Have an unsatisfyingly circular conversation with an elder for 20 years or more on the topic of one of their most deeply held prejudices that intersects with one aspect of your social identity. Maintain compassion for your elder. Maintain your sense of self-worth.
>
> One response, by Rouse, might be as follows:
>
> Be Reasonable!
> Just don't throw it in my face!
> Are you sure? How can you know?
> As long as you're not too pushy about it …

Materializing a rant, to develop the liberatory flip side of the volvelle, begins by capturing the logics of oppression, in other words, the circular and contradictory ways in which power operates. In doing so, the toy is a reminder that we learn about power as we challenge, question, and resist it and feel it resisting change in return. At the same time, the toy is an occasion for discovering what a liberatory alternative to such oppressive encounters might look like. The toy is a good occasion for (re)discovery of dialogue and its ethos such as the need to keep track of one's own assumptive tendencies, reorient toward listening and ongoing revision of our individual and collective understandings. The toy potentially serves as a beginning for attending and cultivating what (David Bohm 1996, 5) refers to as participatory thought, "a mode of thought in which discrete boundaries are sensed as permeable, objects have an underlying relationship with one another, and the movement of the perceptible world is sensed as participating in some vital essence." The theme of dialogue and idea of participatory thought connects this toy to the Conversation Accordions that follows, foregrounding conflicts and coalitions, issues and resolutions, problems and possibilities—both the overall messiness and unpredictability of conversations as well as their potentials and possibilities.

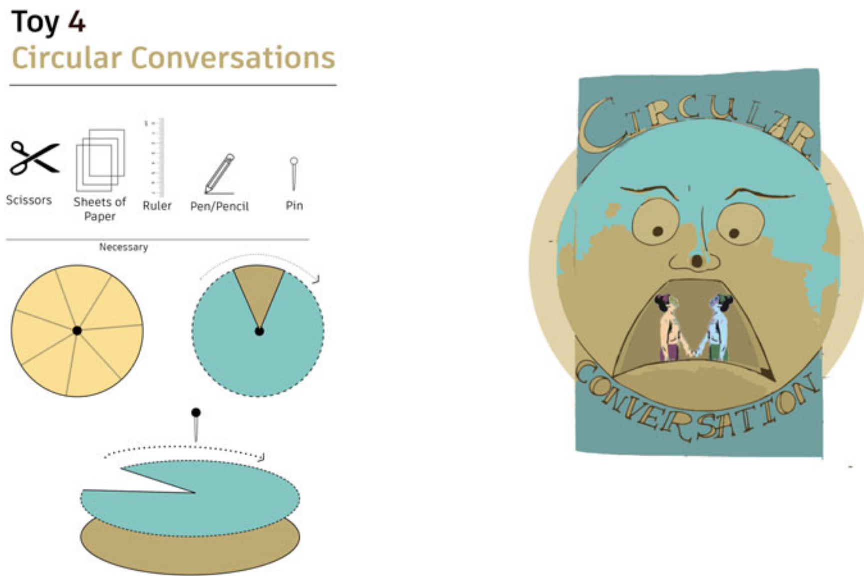

Figure 7. Instructions for Toy 4: Circular Conversations. *Illustration by*: Simin Nasiri.

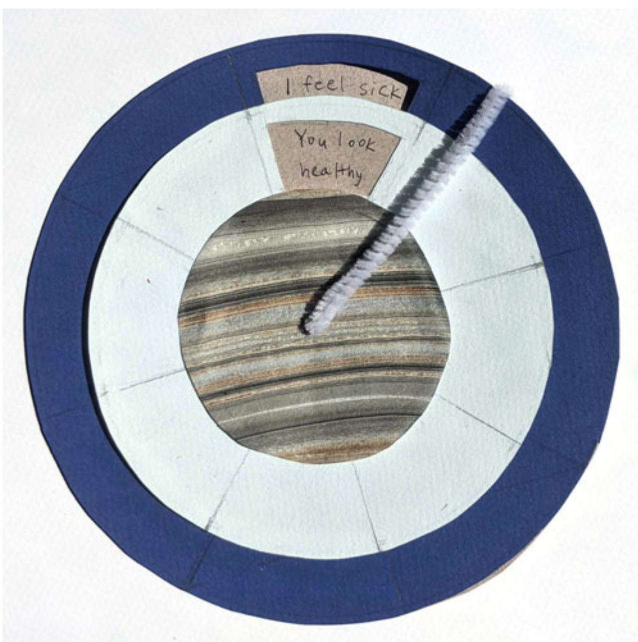

Figure 8. Sylvia Janicki's Circular Conversation toy.

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The ghost figure for this section is Carolee Schneemann and her work, *Interior Scroll* (1975). Schneemann's typed scroll, another form that draws on circularity, was unfurled from her own vagina during a nude live art performance in 1975 in New York. The text on the scroll, which Schneemann read aloud as she unrolled the paper, materialized her own experience of a circular conversation with misogynistic avant-garde male filmmakers who degraded her work as simplistic and uninteresting:

> I met a happy man
> A structuralist filmmaker
> —but don't call me that
> It's something else I do—
> He said we are fond of you
> You are charming
> But don't ask us to look
> At your films
> We cannot
> There are certain films
> We cannot look at:
> The personal clutter
> The persistence of feelings
> The hand-touch sensibility
> The diaristic indulgence
> The painterly mess
> The dense gestalt
> The primitive techniques (Schneemann, 1975)

Schneemann's text goes on to recount her experience of the male filmmaker's work, how his abstract post-narrative film allows her mind to wander and the creative interpretations she devises. But her reception of the work is again discounted by the male filmmaker, bringing Schneemann to conclude that:

> I saw my failings were worthy
> Of dismissal. I'd be buried
> Alive, my work lost …………
> He said we can be friends
> Equally tho we are not artists
> Equally
> I said we cannot be friends
> Equally and we cannot be
> Artists equally
> He told me he had lived with
> A "sculptress" I asked does
> That make me a film-makeress?
> Oh no he said we think of you
> As a dancer (Schneemann 1975)

By the final unfurling of the scroll, Schneemann has liberated herself from this circular conversation, revealing the depths of the male colleague's sexist misapprehensions of

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her and her work. Similarly, our circular conversation toy serves as an occasion to invent a way out of the oppressive circle.

Sylvia Janicki made the toy shown in Figure 8, accompanied with this explanation:

> This design responds to my experiences living with chronic Lyme disease, because of which I've had many "circular conversations" with dismissive medical providers. The outside wheel reflects a range of different symptoms and discomforts I would express to a doctor (e.g., "I feel fatigued", "I feel out of breath when I exercise", or "my body feels heavy and malaised"). The inner wheel includes things doctors often say to me in response (e.g., "you look healthy", "you're young", or "we all get tired").

Toy #5: Conversation Accordions

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 at the same time as possibilities for gathering (in spite of, because of, or by resolution of conflict and difference).

This toy takes the form of an accordion fold book, constructed from a single sheet of paper, in which each of the four sections of the book is positioned at right angles with another (see Figure 9). Through the form of the toy, we seek to acknowledge and embrace conflicts and disagreements but also to encourage reflection on ways that we might find places of agreement or common courses of action. The toy captures moments of divergence and convergence as an ongoing dialectic. In doing so, the toy seeks to help identify and surface differences while at the same time underlining 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.

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.

Electronic musician and deep listening pioneer Pauline Oliveros is the ghost figure for this toy. Oliveros, who passed away in 2016 and whose primary instrument was the accordion, worked with electronic tools of her own design to find new paradigms of melody in dissonance. She was a founding member of the San Francisco Tape Center in the 1960s and was also the center's director. Oliveros developed a radical practice of deep listening (Oliveros 2005), which opens listeners to a new connection between the self, others, and the world through sound.

Toy #6: Fortune Teller

The sixth toy 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, enlarging the Fortune Teller such that it can only be operated in collaboration by two or more people. Recalling the use of the toy by school children to tell the future about romantic love, the form of

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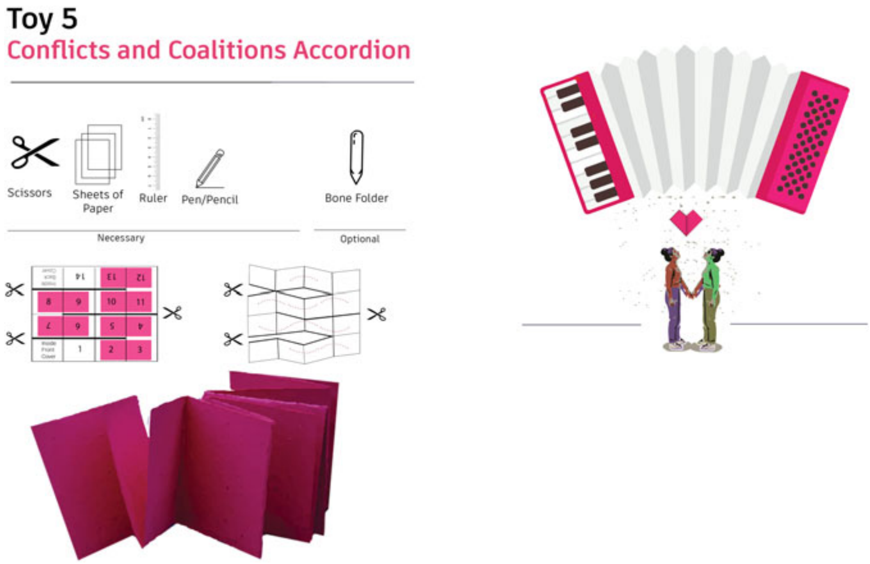

Figure 9. Instructions for Toy 5: Conflicts and Coalitions Accordion. *Illustration by*: Simin Nasiri.

the Fortune Teller helps connect this toy to the theme of love in a broader sense. In doing so, it helps problematize and contextualize that usage while reimagining it at the same time. The oversized form of the toy hints at something that is greater than each of us and beyond our individual reach or control. At the same time the collaborative part helps emphasize how we may each participate in our individual and collective *becoming*. 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).

The small-scale Fortune Teller is easy to construct. However, the same form is difficult to construct and handle with regular paper when scaled. At the same time the flaps are too small to contain all the varied interpretations and experiences of love no matter how big the Fortune Teller. The giant Fortune Teller then is at once too big and too small, facilitating conversations on the illusive nature of love and the inability to contain and comprehend it with words and matter (see Figure 10 and Figure 11).

The ghost figure for the sixth toy comes in the form of ancestors honored in Diana Alvarez's multimedia performance, *Quiero Volver: A Xianx Ritual Opera for Queer and Trans Artists of Color*. Alvarez foregrounds the multiplicity of love and connection, even between this world and others, through creating "a living performance altar for queer, nonbinary, and trans artists of color to convene and manifest futures" (Alvarez 2022, 7). This work was developed in response to Alvarez questioning: "What do we do when our lineage lines are broken?" (Alvarez 2022, 7). Part of the performance includes film documentary portraits of women, nonbinary, and genderqueer artists of color with significance to Alvarez's own journey. These artists form a new lineage, a tracing of a family tree that reflects the becoming of Alvarez's own development as an artist, as well as

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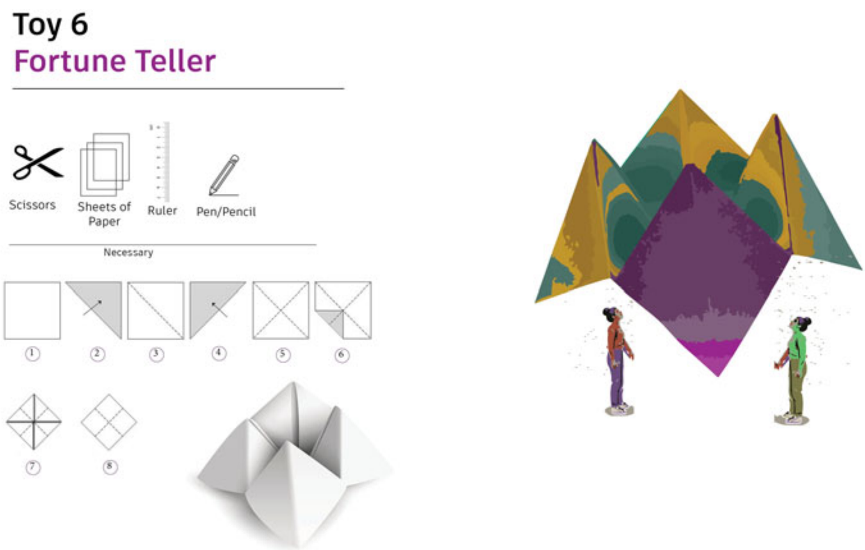

Figure 10. Instructions for Toy 6: Fortune Teller. *Illustration by*: Simin Nasiri.

Figure 11. Scaled Fortune Teller. Participants can choose the size based on available materials and aims. *Illustration by*: Sylvia Janicki.

uncovering the interrelationships between the artists and Alvarez, expressive of love and connection beyond the romantic.

Toy #7: Curation and Collection Folio

This toy is a paper folio with pockets for bringing the other toys together into an assemblage (see, Figure 12 and Figure 13). The framing and arrangement of the structures that hold and produce knowledge are brought to the fore, in relation to Karen Barad's work on *agential cuts* (2007). In her theorization of the kaleidoscopic potentials of the cut, Barad relates the story of the slit/scan experiment in physics, in which different designs of the system used to discern the nature of the atom function to

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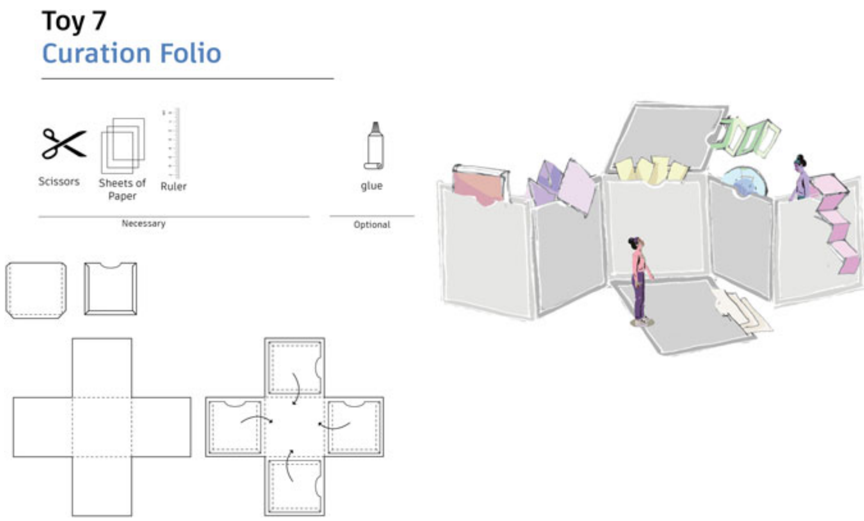

Figure 12. Instructions for Toy 7: Curation Folio. *Illustration by*: Sylvia Janicki.

Figure 13. Curation and Collection Folio. *Illustration by*: Sylvia Janicki.

constitute the nature of the atom itself. Relatedly, we draw upon feminist scholarship from informatics, such as Bonnie Mak and Julia Pollack's research on the history and power relations of the card catalog (2020). In Mak and Pollack's chapter, the reader is presented with a multivalent reading process for grasping multiple understandings of information history. Two columns of text are presented, in different fonts, provisioning two paths for the reader to follow, along two different narratives: one focused on a history of bibliography, and the other discussing Mak and Pollack's own collaborative research project on the form and function of the card catalog as knowledge generator. In addition, Mak and Pollack enclose a literal set of physical catalog cards in the back of the book, for the reader to manipulate, opening up an opportunity for an embodied understanding of the material in question.

This toy also draws on perspectives on feminist curation in the art world (Krasny et al. 2016). In this collection, Dorothee Richter specifically explores feminist concerns within the realm of curation. The discourse encompasses an examination of curatorial strategies aimed at challenging the conventional patriarchal frameworks prevalent in various

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curation spaces. The foundation of Richter's argument is the notion that: "Curating is a form of knowledge production which means, it is also a gendered form of knowledge production" (Richter 2016, 62). In spite of the theme of collecting in curation, the seventh toy is discussed not as an ending or culmination, but rather a beginning. Participants are encouraged to bring their work in relation with each other in new ways that may also be shared with a wider public, such as through publication of zines as discussed by Groeneveld (2016). That some of the toys, such as the Living Toy or the oversized Fortune Teller, may not fit the folio are also an occasion to discuss the materiality of archives and what we may mean by *fit* both physically and materially but also conceptually and culturally. Beyond the immediate context of toy making, the folio presents the opportunity to "carry" the work further. We envision the folio as a way to collectively develop a *killjoy survival kit* (Ahmed 2016) and a possibility of *making kin* (Haraway 2016).

The ghost figure of the seventh toy is Ydessa Hendeles, the innovative Canadian artist-curator. Hendeles makes a practice of foregrounding the mark of the curator in the design of her exhibitions, developing the curator as a figure whose presence is ghostly—here, and yet not. For example, her 2007 show at the Ydessa Hendeles Art Foundation in Toronto included a single stiletto shoe on a pedestal in a tight spotlight near the entrance to the exhibition, labeled as the shoe of the curator. Hendeles' insistence on resisting the dominant mode of "invisible" curation surfaces the ways in which curation is authorship, and myths of objectivity are debunked. As described by Carol Squires, "Indeed, Hendeles' project calls into question the categories of collector and curator, especially as either of them is involved with the production of meanings beyond those of acquisition and personal taste on the one hand or art-historical analysis on the other hand" (in Dercon and Weski 2003, 13–14). Similarly, we invite makers of the seventh toy to play with notions of authorship, collective creation, and collection, as the first six toys are brought into relation here.

Toy #8: The Living Toy

What is the philosophy of paper, itself, as a living material which we live with and through? The Living Toy engages with the philosophy of paper via Blasche's idea that through the creative manipulation of paper "the principle of geometry become 'anschaulich' (accessible to the imagination)" (Iurascu 2021, 210). In this sense, paper acts as a kind of revelatory or scrying medium for allowing us more transparent access to our most creative selves. Iurascu continues to explain that for Blasche,

> The form, texture, and substance of the material itself play an intrinsic part in developing his method. Due to its physical properties—lightness, pliancy, compactness—pasteboard presents a series of important advantages for teachers and learners alike. Blasche extolls its virtues in the preface, exclaiming that: "die ganze Werkstatt läßt sich … in ein Kästchen oder in eine große Mappe bringen, ist folglich tragbar und kann überall aufgeschlangen werden" (the entire workshop … fits in a small box or a large folder and can therefore be easily transported and opened everywhere). To borrow Anke te Heesen's formulation: here, boxes and folders become "easily graspable equivalent(s) of the complex world," not merely in the sense of acting as capacious objects, but also as material representations of the extreme versatility and applicability of pasteboard. (Iurascu 2021, 213)

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Here we see ideas about how the seeming simplicity of paper is countered by its flexibility, allowing it to operate as "nothing" and "everything" at the same time. Paper is a transparent or invisible medium connecting us to imagination. It is also the "equivalent of the complex world," as solid, representational, formalized paper object, helping us to grasp complexity through its grip. Paper is accessible and disposable but can also be made to last. In this way, we think of paper as humble material, one that goes against fetishization of matter in some art and design practices through the use of precious materials that require a lot of expertise or that cannot be touched, felt, or manipulated (see Figure 14).

Moving past Blasche's neatly constructed pasteboard models, we also turn toward eco-feminist and new materialist feminist approaches to understanding materiality and meaning in relation to paper's own philosophy. From these perspectives, we are invited to understand paper in its connection to living matter (the tree, in the case of paper made from wood pulp), and the complex entanglement of industrial, ecological, and cultural processes that produce, circulate, and transform paper. Some of this scholarship draws on Indigenous knowledge and acknowledges Indigenous interrelations with plant life, such as Robin Wall Kimmerer's *Braiding Sweetgrass* (2013) and Eduardo Kohn's *How Forests Think* (2013). Of course, paper's interrelation with the world of plants and animals (including humans) has been fraught with issues of environmental destruction, due in part to the contamination of large quantities of water needed in the papermaking process, not to mention extractive practices that lead to deforestation. These issues are documented and wrestled with for 50 years in the context of a particular paper mill in Canada, by Joan Baxter (2017). Paper is far from the blank sheet we may envision when we call up the quotidian printer ream of white 8.5×11.

Inviting us into mess, dirt, transformation, and growth through interrelation with the more-than-human, the eighth toy suggests the creation of a biodegradable plant pot, made of paper, to fill with dirt and plant with a sunflower seed. The ghost figure for this toy is Anna Atkins, the English botanical researcher who was the first person to publish a book featuring photographic images. Atkins, who was born in 1799 and active until her death in 1871, and was a colleague of William Henry Fox Talbott, inventor of the cyanotype photographic process, recognizable by the cyan (blue) and white images produced. To distribute her scientific research on British algae, Atkins produced multiple volumes illustrated with cyanotype plates in the 1840s and 1850s. As discussed by Larry J. Schaaf (1985), Atkins' work bridges art, science, emerging technology, nature, and design in inventive ways that are a testament to her creativity. For example, she used strands of seaweed to create custom hand-made fonts for the covers of the books (Schaaf 1985, 98). Just as Atkins' work represents a creative blurring and bridging between paper, the vegetal, art, design, and science, so too the Living Toy invites the makers to develop such entangled connections (see Figure 15).

Sylvia Janicki writes of the Living Toy:

> I created this paper by cutting up old, used paper, dissolving the paper bits in water, and reforming it into new sheets that have a mix of colors and textures. Specifically, I used old notes, newspapers, and medical bills to create the base of the paper paste. Each of these pieces of paper I used had different personal associations and significance, representing a unique past experience. The process of breaking them down and joining them back together in a way that erased their original form and meaning to create new ones provided a sense of catharsis and renewal. In addition to the used paper, I also mixed in fresh indigo leaves that I

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Figure 14. Instructions for Toy 8: The Living Toy. *Illustration by*: Sylvia Janicki and Simin Nasiri.

Figure 15. Sylvia Janicki's Living Toy

grew from seeds to give the mixture a blue tone. After forming the paper mixture into new sheets, I sprinkled wildflower seeds on one sheet, and pressed fresh flower petals into the other. The addition of living materials adds a layer of regeneration that gives the paper new life.

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

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> *to understand concepts about which they have read and then formulate (or materialize) as their own.*
>
> (Hickey-Moody et al. 2016, 225)

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 purpose of these toys is to bring attention to what matters of the situation as well as the concreteness of its matters. We anticipate that participants will actively engage in the conversation's evolution by challenging, amending, adjusting, and even reinventing the materials involved. The juxtaposition of the philosophical and the playful in "philosophical toys" is intentional to make philosophy grounded and accessible. 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). Ultimately, it is the knowing through meaningful exchange in embodied dialogue with others, materials, and the communities and connections we build in the processes of collaborative making that have the potential for radical transformation.

Acknowledgments. This project is a collaborative one through and through in a way that makes authorship order moot. In a playful spirit, we encourage readers to flip a coin, throw dice, or consult their favorite divinity cards to decide whether to refer to it as being by Rouse and Parvin or by Parvin and Rouse. We are grateful to our students who engaged the toys generously and openly in ways that allowed us to refine and revise them into their current shape. We especially like to thank Sylvia Janicki and Simin Nasiri for lending their design expertise and sharing their stories in ways that bring the toys to life.

Notes

1 For an expansive overview of design and the ethical, political, and epistemological question it raises see Parvin (2023).

2 We would highlight however that the games/play distinction is not a rigid one. There are many examples that fall in the middle and even games with rigid rules may be played creatively and transgressively.

3 All ten of Montessori's original patents and improvement patents can be viewed online: http://stephenvandulken.blogspot.com/2013/10/the-patents-of-maria-montessori.html

4 Book historians have mixed opinions on these practices. For example, Halliwell-Phillipps is referred to as having "destroyed eight hundred books and made thirty-six thousand scraps" and is given the moniker "the book world's Jekyll and Hyde." See, https://www.shakespeare.org.uk/explore-shakespeare/blogs/book-worlds-jekyll-and-hyde-james-orchard-halliwell-phillipps/ for such interpretation of grangerizing practices seen as destructive as opposed to transformative and knowledge generating.

5 This work also connects to the history and research on zines as alternate modes of publishing. For an overview of the history of feminist and antiracist uses of zines in US and Canada see Groeneveld 2016; Ramdarshan Bold 2017; Zobl 2009.

6 For more on the fascinating and very long life of Mary Delany, who created artworks across many mediums including literature, shell art, embroidery and the invention of paper mosaics or collage, see Hayden 2000 and Peacock 2011.

7 https://paperologybook.nfshost.com/

8 Playing cards with the suits we recognize today do not appear until later in the fifteenth century, according to Hargrave (1930, 41).

9 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.
10 For a review of reductive interpretations of intersectionality in mainstream discourses see Carastathis 2013 and May 2014.

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