# Out of Time, Out of Place: Reflections on Design Workshops as a Social Research Method

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#### ABSTRACT

This paper examines design workshops as research practice: how workshops bind time and participation in ways that privilege certain types of action and foreclose others. In five workshops we facilitated, we asked members to design a new item from two existing items in need of repair and studied their acts of appropriation and reuse. Although we hoped to explore possibilities for collaborative practice, we more clearly saw what happens when garments with rich histories meet the blunt instrument of workshop interventions. Members aligned anticipated outcomes in opposition to our guidelines and abandoned projects due to personal obligations. In reflecting on these encounters we further show how workshops shape what it means to study collaborative settings. This work contributes a reflective study of workshops that gathers and extends CSCW methods for interventionist inquiry.

#### **Author Keywords**

Design workshops, sewing, remixing, mending, reflexivity, interventionist methods, time, participation.

#### **ACM Classification Keywords**

K.4.0 Computers in Society: general.

# INTRODUCTION

A collision of attitudes and expectations around methods emerging within the CSCW literature has raised new questions around traditions of workshop design [9,12,14,22, 25,27]. As interventionist projects, workshops shift actors relationships to the materials, tools and processes at play to reveal taken-for-granted expectations, priorities, and ideals. This approach connects up with the work of Harold Garfinkel [10] who developed what he and his contemporaries called 'breaching experiments' in the

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1970s. As we explain in more detail below, this ethnomethodological disruption of social rules opens momentary windows into people's construction (and repair) of conventional routines and normative practices. In Noortje Marres' telling, people routinely mobilize such experiments for social inquiry, even if they make no claim to those aims [25].

Our work connects the aforementioned interventionist traditions familiar to CSCW with a reflection on 'practiceled' and 'practice-based' research growing within the fields of STS, communication, and media studies [6,17,18,19,21, 24,26]. By following five collaborative sewing workshops conducted with amateur menders, we examine the promise and pitfalls of workshops in research practice. During our workshops, we asked women who create, mend, and reuse fabric in casual sewing meetups to design a new item using two existing items in need of repair. Although we conducted the workshops to learn something about the forms of collaboration that might arise through remixing existing fabric, we found that introducing a loosely structured event to an ongoing community of practice exposes the blunt instrument of the design workshop. Some menders chose to redirect their workshop activities toward new ends. Others refused to reimagine their garments in unfamiliar ways. Still others faced family obligations, health issues and competing projects that curtailed engagements. We show how the order imposed by our workshops sparked questions of alignment and temporality - making sense of the relationships people held to existing objects and the collaborative rhythms they aimed to uphold.

This paper extends the CSCW literature on design workshops [9,12,14,22, 25,27] by outlining the multiple roles workshops play — as field site, research instrument and research account — and how those roles account for different kinds of participation in the same setting. Drawing on discussions of reflexivity [7,11,22,25], we call for a more engaged understanding of design workshops that takes seriously the ways these events selectively animate (and resist) social alignments. While CSCW has carefully attended to statistical and ethnographic methods (for a recent example, see *Choice* by Randall, Harper and Sharrock [12]) it has notably overlooked questions of workshop design. We find that the form of workshop activity limits not only the pace of mending and the maintenance of social relationships through artifacts, but also the subtler forms of participation at play. What it means to participate in workshop activities depends on attempts to create and defend people's categories of investment.

## WORKSHOP RESEARCH

Before describing our interventions, we wish to revisit the variety of workshop traditions within and beyond CSCW on which this research builds. This includes programs of participatory design, participatory action research, living labs, and interventionist methods emerging from science and technology studies. Across these fields, design workshops help us imagine, in the words of John Law [21, p.7], "what research methods might be if they were adapted to a world that included and knew itself as tide, flux, and general unpredictability." This suggests possibilities for not only extending CSCW approaches through design, but also enrolling collaborative practices in clarifying ontological questions. Moving away from metaphors of 'knowing' toward notions of 'doing' enables different concerns for embodiment, emotionality, and situated inquiry otherwise overlooked [21].

Locating design workshops in a wider spectrum of social research requires asking: what kind of project are design workshops? Design workshops, in one sense, have become a promising foil for exploring collaborative programs of design. In the 1920s, Bauhaus professors used design workshops to organize collective building activities that taught students how to integrate their work into the industrial process [3,39]. This freed students to express themselves within the limits of industry as part of discovering raw talents and becoming active citizens [39]. In the 1970s, Scandinavian thinkers such as Müllert and Jungk [27] introduced future workshops as tools for engaging citizens in social justice issues. Success of the workshops rested on their ability to engage a utopian civics in light of practical limitations - using "a common language" to describe the state of both critical and idvllic visions [5]. The 1990s saw the rise of living labs [1,37] that treat everyday contexts as research platforms for exploring technological development. Drawing together tradition (what if) and its transcendence (what could be), Brandt and Binder discuss Participatory Design (PD) workshops as "a community of practice in the making." PD researchers have relied on future workshops to order co-design activities. Despite the explicitly political agenda of early PD, its success has tended to rely on situated inquiry: the degree to which organizers consider the stakes and contexts (historical, cultural and economic) of the encounter [16]. Today advocates frame design workshops as carrying new liberating potential: institutionalizing the estrangement of the familiar through "what if" scenarios at programs like Stanford's Institute of Design [16].

**The Design Workshop as Site, Instrument, and Account** To understand the agenda design workshops bring to research practice, we turn to three approaches that carry workshops beyond the design orientation described above: (1) social studies of design workshops, (2) design workshops as research instruments, and (3) reflexive accounts of the researcher's own workshops.

# Social Studies of Design Workshops

In a first stream of work, the study of design workshops refers to a treatment of workshops as field sites. Over the last decade, workshops for amateur repair and making have become prominent sites of collaboration and creative practice [20,40]. Termed inventive leisure [40], expert amateurism [20] or pop-up repair [33], these practices often extend current modes of entrepreneurism, education and technology innovation [33]. While recent CSCW scholarship has highlighted the work of traditional craft workshops as integral to these settings [10,35], offline spaces like co-working sites, hackerspaces and Fab Labs continue to assert technology's liberating potential: using device-level electronic tinkering to promote countercultural design [39].

Temporary sites of making, hacking and repair further complicate this impulse. While working alongside a team of designers and engineers in a Dehli hackathon focused on "open governance," Irani [15] describes the project's imperative to produce demonstrable designs produces a temporal structure that privileges flashy demos over careful deliberation. The format of the hackathon proved successful for advancing fast and easy relationships, while less useful for building coalitions with key institutions or NGOs. DiSalvo, Gregg and Lodato [6] describe a similarly form of volunteerism performed at civic hackathons wherein people gather under tight timeframes to envision and incite public projects. Through field visits to Bay Area civic hackathons, they find limitations on time and effort help build belonging. In related work, Rosner and Ames [33] follow organizers of pop-up repair collectives who reproduce childhood imaginaries through volunteer fixing: projecting the childhood stories of organizers onto the goals of their participants. Within this context of repair, Jonnett Middleton's Menders Research Symposium (highwiredtc.com/mendrs) illustrates a rare attempt at orienting sewing sensibilities toward questions of workshop intervention.

# Design Workshops as Research Instruments

When design workshops act as research instruments they shift the form and character of collaborative work. Ratto [31] describes a series of critical making workshops that envision material engagements as opportunities for learning. Connecting Seymour Papert's constructionist principles with Phillip Agre's critical technical practice, Ratto suggests interrogating social theory through hands-on experimentation, reifying and challenging the accounts such tinkering produces. This translation between 'criticality in reading' and 'criticality in making' resembles new methods emerging within the sociology of technology [18,19,21,24,26]. Responding in part to Marcus' suggestion above, sociologists Cecilia Lury and Nina Wakeford [24, p.2] gather what they call *inventive methods*, methodological accounts committed to examining the "open-endedness" of social life. The inventive quality for them amounts to honing the relevance and specificity of a research approach. Workshop research, in this view, unfolds as a happening [26], an ongoing and relational program of work entangled with the action underway.

Extending the lens of sociology, workshops become a means by which researchers mutually engage social actors, breaching routine of ordinary life. This view builds on ethnomethodological traditions that seek out "common sense understandings" of ongoing activity to render actions "observable and reportable" [11]. For a workshop intervention, the unfolding action shows how the work is socially and practically organized to refigure routine action. The work we present here builds on these longstanding social experiments to recognize opportunities as well as challenges.

# Design Workshops as Research Accounts

As a final approach, design workshops figure prominently in research accounts in two ways. The first comes in the form of metaphor: inviting researchers to examine their existing research practice through the lens of a design In Designs for an Anthropology for the workshop. Contemporary, for example, anthropologists Paul Rabinow, George Marcus and Tobias Rees [30] recommend the design studio, a pedagogical metaphor for anthropological practice. The workshop, according to Rees, intertwines "research, concept-work, and teaching" [30, p.120]. Adopting this approach for anthropological learning, Marcus [30, p.84] suggests, "develop[s] alternative ideas about method in a more comprehensive way than traditional attitudes have permitted." This anthropological perspective resembles the aforementioned association of design with the crosscutting currents of interdisciplinary knowledge production. In this sense the reflexive project not only writes investigators into their work, but also materializes the analysis as forms of social investigation.

A second way in which workshops operate in research accounts involves a close examination of the research instrument in the context of the study and analysis. Le Dantec and Fox [22] most recently share an account of methods they developed to explore community identity. Faced with resistance from a neighborhood organization, they found their relationship with members of their field site reached beyond the individual level to histories of exploitation enabled by their home institution. As their work met with further criticism during field visits, it provoked conversations between their institution and neighborhood agencies. Ultimately, they developed a deeper analysis of the stakes of CSCW research methods – design workshops among them. For our study of workshops this points to the unavoidable shaping of a research site through methodological commitments.

# **Conceptualizing Reflexivity**

For CSCW, a field whose interpretivist tradition borrows much from early ethnomethodological studies (see [11]), the overlaps between the above approaches call to mind the concept of reflexivity. Here the contrast between "reflexivity of actors" and "reflexivity of accounts," a distinction derived from Garfinkel's early writing [6,25], deserves particular attention. While the reflexivity of actors refers to an individual's capacity for introspection, a reflexivity of accounts (in line with ethnomethodology) frames reflexivity as an ordinary, practical accomplishment; a practice without antonym. Drawing on Garfinkel, sociologist Michael Lynch [25] further contrasts a treatment of reflexivity as a privileged or virtuous undertaking with his view of reflexivity as "an unavoidable feature of the way actions (including actions performed, and expressions written, by academic researchers) are performed, made sense of and incorporated into social settings" [25:42]. For Lynch, reflexivity suggests an exploration of "how any empirical investigation constructs the world it studies" [25:44].

This last point links up with a broader tradition in STS that engages methods as necessarily world shaping phenomena, mutually transforming their subject matter and program of study [6,17,18,19,21,24,26]. Reflexivity across these fields suggests interrogating what Le Dantec and Fox term the "authorial voice and subjectivity" [22, p.1349] of the researcher as well as the ways a particular account operates as social encounter. By following our development of a design workshop for fabric mending, we show how an enhanced focus and connection with design workshops invites a reflexivity of sites, instruments and accounts that explore how interventions become part of what they study [6, p.163].

# **RESEARCH QUESTIONS AND METHODS**

Our project draws together these diverse and loosely connected workshop traditions with the aforementioned discussion of reflexivity to explore three central concerns:

- (1) What role does the workshop play as a field site? What does it reveal about the collaborative practices of participants?
- (2) What role does the workshop play as a research instrument? How does it shape the subject matter under study?
- (3) What role does the workshop play as an account? How does it shape the program of research?

To address these questions we connect a focus on 'practiceled' inquiry (what can we learn about collaborative practices) with an approach to 'practice-based' inquiry (what we can conceptualize through design interventions). We refer to our approach as both practice-led and practicebased in the hope of linking CSCW's workshop encounters (e.g. [12,22,33]) with the emerging interdisciplinary social science traditions discussed above [6,17,18,19,21,24,26]. While practice-led work builds new understandings of work. practice-based research generates new understandings through systems, exhibitions, performances, and so on [6]. Although our project began as a study of existing mending groups, it became an analysis of workshop interventions and eventually the research process itself [18,19,17]. In this way, we progressively entangled our research objects with our modes of inquiry, inviting the emergence of new meanings and methods across communities of practice.

A five-part workshop procedure organized our activities: (1) reflect on people's definitions of repair, (2) recall narratives related to the items, (3) pair up with another participant, (4) brainstorm ideas for a remixed item using the two existing items, and (5) present the remixed project to the group and discuss its relation to the original items. Prior to each workshop, we asked people to bring a textile artifact that they would be willing to tear apart or that they considered in need of repair. We planned for each workshop to last approximately an hour, yet all ran long and most blended into regular group meetings. Whenever possible, we conducted the workshop at the group's regular meeting time and location.

Our focus on mending stems from three observations. First, sites of mending broaden the spectrum of research on collaborative repair and creativity within CSCW. In this, they help chart developments readily overlooked in the lifecycle of everyday product development (see [17,33]). Second, fabric remixing represents links between smallscale creative practice and broader developments in design and engineering [34], such as creativity sparked through combination [14]. Lastly, sewing extends a small but vibrant strand of CSCW literature on craft and feminized production [10] that reveals theaters of alternative history in technology development. Despite seeming beyond the scope of 'computer-supported' work, these settings integrate under-explored legacies of technology hacking with traditional worlds of collaborative practice (see [10,34]).

We ran our workshops with five groups: (1) *University Students* included six participants recruited through friends

and colleagues (one man and five women aged 22 to 30) without prior knowledge of sewing or mending; (2) the *North Seattle Neighborhood Group* (a chapter of the American Sewing Guild) included eight women who hosted the workshop at the Greenwood Senior Center; (3) the *West Seattle Neighborhood Group* (also a chapter of American Sewing Guild) included ten women, most aged 45 to 70, who hosted the workshop in the meeting room of a retirement community center; (4) the Costume Club (a student association focused on the construction of drama or "cosplay" costumes) included six women who hosted the workshop at [a large university] campus; and (5) the *Seattle Sewing Guild Meetup* (a pop-up gathering at different public sites) included six women aged 35 to 50 and took place at [a large university] campus.

After our first workshop, we worked with members of existing sewing communities and recruited interested parties through meetup.com. We recorded each workshop through detailed field notes, images and video whenever possible. We transcribed selections of the video recordings and inductively analyzed these materials individually and as a group, iteratively developing analytic memos shared between team members and discussed alongside our theoretical engagements. Moving on from here, we detail the collaborative practices of the members of these groups.

# **DESIGN WORKSHOPS IN PRACTICE**

In the descriptions that follow we discuss how existing practices within the meetups collided with our workshop organization. What we hope to show in this analysis is how a reflection on workshops as sites, instruments and accounts sheds light on the different temporal scales and forms of participation of which CSCW research is already a part. The workshop site invites defense of long-term relations with objects, the workshop instrument exposes different rhythms of participation, and the workshop account performs resistance at the level of discourse.

#### The Workshop Site: Defending Years of Investment

Early on in our engagements, we saw workshop exercises focus around personal stories and object histories. By picking up and sharing familiar and unfamiliar items, menders revisited their relationships with languishing objects. This involved reflecting on the work it took to maintain them and the relationships those practices brought to light. In the next sections we illustrate how our workshops configured these moments of reflection as sites



Figure 1: Workshop Sites (left to right): (1) University Students, (2) N. Seattle Neighborhood, (3) Costume Club (4) W. Seattle Neighborhood, and (5) Seattle Sewing Guild.

## of inquiry.

#### Asserting Heritage: Darcy's Unexpected Kimono

Our first vignette draws out connections between interventions in fabric and the cultural histories those interventions materialize for menders. Here collaboration becomes a means of collectively revisiting an item and its provenance.

Darcy, a participant in the Seattle Sewing Guild, is a white American women who grew up in Japan. "It was a significant time of my life," she describes to her Seattle Sewing Guild meetup, "because it framed my self identity and shaped my cultural identity, which is always a little odd since I don't look Asian and nobody has any sense of this." Bringing in a kimono to repair and repurpose, Darcy explains that she had found it "languishing" in a secondhand shop and despite being over her budget she "had to take it home." Made of black silk thread with colorful shades of green, gold and red embroidery, the kimono depicted a large Phoenix, impressing other attendees. She linked the item's value to her love for textiles and her childhood memories growing up in Japan. "I didn't want to just - to hang it on the wall where it will never be worn. I have several other art kimonos hanging on the wall, and I don't have the space to hang more. I didn't want it to become costuming or an art piece. It was made with a great deal of skill and dedication, intending to be worn." Her plans for the garment involve returning the fabric to use, a process that has taken her several months to conceive, let alone achieve: "it is going to be remade into a long side open slit skirt. And I am having a hard time finding the right silk color to match it with it. The top part is in the process of being made into a jacket. There is a lot of damage to it and it needs to be addressed." Creating a wearable garment is not just about respecting its intended use; it also involves sharing a part of Darcy's heritage.

After presenting their remix ideas to the group, Darcy's workshop partner explains, "we were just imagining, okay. Because obviously ... [Darcy] won't let me touch that [referring to the kimono]." Darcy demonstrates no interest in altering the kimono. By imagining fabric alterations and not executing them, Darcy continues to perform a connection to two worlds of practice: one available to her now in the meetup and one from her past, a culture to which she may have little remaining evidence of belonging.

Here Darcy partially ignores our workshop instruction to physically alter or combine her fabric with another. By imagining an intervention, Darcy reignites references to her past without sacrificing the integrity of the item. This decision enables the continuation of a slow and ongoing process of sociocultural and material entanglement: interweaving an appraisal of garment histories with an appraisal of the cultural histories from which she came. Readjusting our workshop activity not only restores function to fabric but also more subtly helps Darcy selectively reassert her connections to Japan, a nation and culture in which she had invested many years.

#### Challenging Objects: Joanne's Fluffy "Sweaters from Hell"

Next we show how this investment can acquire paradoxical qualities. An object can appear simultaneously unpleasant and significant: accruing memories that contrast with its standing in daily life. The workshop opened these tensions to social investigation, framing its deliberation as a collaborative endeavor.

During the West Seattle Neighborhood Group meeting, for example, Joanne presented two fluffy angora sweaters, gifts from her deceased husband. "I'm almost embarrassed about this," she began, looking around the room. "My husband thought I was six feet tall and two feet wide, apparently. Tall and thin. He didn't think I was blonde. But he bought two of these for me, two different Christmases!" As she held up the first sweater — a gray, fuzzy thing — the audience laughed. But when she revealed the second one, a pink, fuzzy sweater, the group fell apart. Joanne nodded emphatically: "These are the giant sweaters from hell! I mean, I look like a pink snowman!" Through the laughter, another woman recalled: "I used to know a girl who wore sweaters like this all the time. We called her fur ball!" Another exclaimed, "isn't there some kind of textile museum you can donate those to?!"

As the discussion continued, Joanne explained how she hoped to repurpose the sweaters, pointing out several details of the sweater's construction that made it worth keeping. She highlighted how they were made from angora, acrylic and nylon with 'real' mink knit into the sweater. She enjoyed that "they're one piece," and at one point cried out: "They're gorgeous sweaters, and they're lined, even!" Then in a hushed voice, she confided: "They're not real pearls." Compared to other "experimental" projects shown off that day, Joanne's fluffy sweaters commanded the attention of the group, with everyone at the table providing input on possibilities for repurposing.

Despite the entertainment they sparked, the sweaters frustrated Joanne, as she admitted to the group: "*I don't know what to do with the damned things, except keep putting them back in the tub.*" However, when someone suggested donation, Joanne held firm:

Joanne: "I don't want to part with them is the problem." Member: "I thought you said they were too fluffy." Joanne: "Well, I don't want all of it, just some of it."

Joanne was determined to keep the sweaters — at least in some form. They had come from her deceased husband, and she had held on to them for decades. Indeed it had taken her thirty years to be ready to modify them. Towards the end of our meeting, a woman piped up to tell Joanne: "you were a good wife." Joanne agreed, "I was a pretty good wife." The group subsequently brainstormed for an appropriate outcome for the sweaters, eventually agreeing that they would be best felted and turned into a dog bed.

As a field site, the workshop exposed the collaborative practices of participant as forms of collective recollection and ideation. Like Darcy, Joanne felt obligated to hold onto the items she brought to the workshop. The sweaters represented decades of experience: years mending high quality fabrics and years with her husband and his expectations. Unlike Darcy, Joanne ultimately loathed the sweaters. They were too large, too pink, and too fluffy. In some respects, they seemed a perfect candidate for the remixing activity. But Joanne had no intention of remixing these items. In the workshop setting, she brought out the sweaters to gather ideas from fellow menders. Despite her desires to rework them, Joanne saw the sweaters as beyond repair, literally and symbolically. By keeping them in tact, she defended not only the artifacts but also her years of personal investment.

#### The Workshop Instrument: Rhythms of Participation

Over time our workshop instrument illuminated surprising contrasts between workshop activities and the collective work of menders. In this section we describe how menders adhered to familiar rhythms while executing their work due to guidelines organized around compressed timeframes and rigid forms of practice, each step reliant on what came before. This coarse set of instructions did not always constrain practice, however. Other forms of participation found their way into menders' work.

In the Costume Club, some members found ways to finish their projects despite limitations on time, asking us to extend our workshop. Chloe, for example, a leader of the Costume Club, told us she was "*pretty much done*," when the remix activity concluded. "Almost done" as she reiterated as she inserted an elastic band into her trousers. Fifteen minutes later she remained buried in the garment, her project still some ways from completion. She eagerly developed multiple rough prototypes despite having too little time for one completed piece.

In contrast to those participating in the Costume Club, others menders left projects hanging or refused to finish. One mender at the West Seattle Neighborhood Group explained, "I don't want something that looks like I made it." Another mender told the group: "when I went into work, I was quite proud, because some of my co-workers who I know are into fashion came by and complimented [the item] and asked me where I got it!" A desire for craftsmanship relied on extended periods of refinement and reflection.

These desires for reflection prompted some menders to stay long hours after our workshop sessions. At the Seattle Sewing Guild meetup, menders stayed six hours at an ostensibly one-hour workshop — many engaged in discussion around sewing techniques well after the conclusion of our remix activities. A few people at the first workshop, which ran from 10:00am to 11:00am, stayed until 1:00pm to finish their remixed items. Other menders left the workshop early or arrived late due to family or personal commitments. A Seattle Sewing Guild member



Figure 2: Seattle Sewing Guild: Brainstorming remix ideas.

who arrived late mentioned health concerns; she was unsure she would be able to attend the workshop. Once she arrived, she stayed hours after our workshop.

As a research instrument, the workshop revealed inflexible increments of time and participation. Yet, not everyone resisted the workshop format so cleanly. Recalling Chloe's inaccurate description of being "almost done," some participants did not contest the time prescribed. Instead, they exhibited a social pressure to conform to the expectations of the research team while still disrupting the definite and predictable character of that participation. Making statements that did not align with actual progress introduced new forms of participation along the way.

# The Workshops Account: Adjusting our Process

So far we have seen a concern for object histories and existing rhythms emerge from our workshop encounters. But what of our research process, more broadly? What kind of account did our work engender? Next we turn to the form our workshop took as activity began to unravel. By disputing instructions and interjecting new goals, members began to frame our workshop as a platform for resistance: adjusting our process as well as our categories of action.

A first type of adjustment emerged while revisiting existing items. What items people felt deserved, required or forfeited mending resonated differently for individual menders. Some menders from the Seattle Sewing Guild saw tattered ends and scraps of fabric as part of distinct object ecologies, each requiring different considerations across the lifecycle of an object. Others from the West Seattle Neighborhood Group had trouble understanding why they would alter an arbitrary piece of fabric. One Costume Club member asked, "do we have to physically combine?" and subsequently created outfits from two individual items, remixing shirts and pants. Insofar as our workshops asked all menders to submit items for reinvention, members called attention to how it overlooked important differences between them.

The rejection of vague language constituted a second kind of modification to our research process. During our early interactions we introduced new language for existing concepts (e.g., "front" for "face") and general terms for specific ones (e.g., "difference" for "bias" or "fix" for "darn"). These terms unwittingly undermined the rich vocabulary developed by the menders across years of sewing experience.

In the West Seattle meetup, activity began to unravel during the initial pairing exercise designed to enable participants to find partners for the remix activity. One mender suggested pairing with someone across the table due to the color of the item. "*How did you know*?" another mender asked, referring to the color. The first mender admitted that she had simply seen the item. The group broke into laughter, enjoying this breakdown in instructions.

As people continued to introduce their descriptions around the table in West Seattle, Diana, sitting near the end of the table, asked if she could share her textile item along with the adjective she chose to describe it "because otherwise this has nothing to do with it [pointing to the item]." Margaret, a leader of this month's activity, probed further, "are you looking for a purposeful pairing or is proximity acceptable?" she asked the research team. When [Author] noted how proximity could be purposeful, Margaret nodded in agreement. "I'm a university professional," she asserted, as laughter erupted around her. "And I was a systems analyst in the 90s," Diane continued. "So forgive me. Tough crowd."

In the face of frustration, Margaret and Diane later cited their professional affiliation as reasons for resisting the workshop. They approached the design team to share their preference for structure over our looser, indeterminate activity. Diana described her work as an off-campus administrator for a local university and Margaret explained her former job as a manufacturing engineer. In detailing this association, they emphasized expertise that might give weight to their opinions and soften their feedback, making their recommendations more clearly heard. This reference to professional status served to not only explain a preference for organization but also legitimate their social standing within the group and its program of work.

As an account, the workshop enabled multiple, often conflicting programs of study. The above examples begin to show how menders perpetually sadjusted our research process to make new claims to research production. While sharing words they associated with their objects, menders like Margaret and Diana protected their own categories of practice. With recurrent questions of clarification, often beginning with the phrase "are we supposed to…" menders invited further interrogation. They used interruptions and corrections to contest our authorial production, constructing their participation as an alternative — and equally adequate — account of collective practice.

### DISCUSSION

Our work has so far traced the development of design workshops for fabric mending to examine how these events shape our studies of collaborative work. By outlining the distinct roles workshops play in research practice (field site, instrument and account), we aimed to develop a language and orientation for elaborating interventionist approaches and the agendas they bring to CSCW research. In closing we wish to highlight how this discourse presents lessons for (1) the development of design workshops, and (2) how we conceptualize design workshops as broader interventionist encounters.

#### Lessons for Workshop Design

Across our workshops we recognize failures to fully grasp



Figure 3: Examples of Combined Items and Ideas - (a) a memory quilt and a tabard, (b) an outfit of a woven t-shirt and leggings, (c) an outfit of a t-shirt and sweatpants, (d) a t-shirt vest and a t-shirt with turtleneck, (e) a mask and a shirt, (f) a pincushion flower wristband, and (g) a doll and an eye mask.

the concerns, attitudes and priorities of the participants with whom we engaged. While in some cases participants realized remixed creations prompted by our interventions, in other settings our facilitation lacked a sufficient understanding of what mattered to a community of practice. This set of encounters invites us to ask: how might our workshops have been otherwise? What, if anything, could we have done to overcome a provisional gap between 'knowing and doing'? To what degree was the workshop (as site, instrument or account) a function of poor initial assumptions? What could we have done differently? We now begin addressing these questions within the following themes.

## Flexible Temporal Frames

The above stories reveal a particular temporal character to our workshop process. Early in our interventions, concerns for time emerged in the new relationships menders built with their objects. Remixing a current object meant transitioning away from its material form as well as the role it played in maintaining social relationships and cultural associations. This took significant time and subtle analysis: Darcy's months determining how to alter her kimono or the three decades since Joanne received her fluffy sweaters. Projects that had once hinged on long stretches of deliberation now met urgent and uninterrupted periods of redesign. For others, our exercises produced quick successive blocks that cultivated a diminished capacity to care. Each activity embodied a priori assumptions about the pace of collective work. It held to short timeframes and relied on the work that came before. When a member failed to bring in an item in need of repair, the process of describing stories about the item (or sharing any description) could not continue. As our workshops developed, our interventions revealed further collisions within the group's regular agenda: preparing for 'November repurposing month' or exchanging fabrics. Across these settings, our workshops challenged prevailing rhythms of work.

Beyond providing more time, however, we wish to highlight the need to build a more flexible temporal scale with which participants can shape workshop rhythms. This involves accounting for the diverse intervals of practice by which participants into the construction of these frames. Rather than 'apply' workshops to problems, or even replace the proverbial hammer and nail with a seed in a garden [12], research practice might construct timeframes from the encounters already underway, inviting instead of cultivating flexible temporal constraints. This means producing alternative accounts: adhering to the ways participants continually defend their rhythms and categories of practice.

#### Adapt to Different Modes of Participation

Our workshop limited the kinds of remixes and responses menders could produce. Some menders curtailed participation due to health concerns, while others slowed down their engagements to attend to the material integrity of their objects. A focus on novelty through remixing, for example, undermined the rich histories and meanings participants associated with their personal objects. This limited participation is worth reconsidering in light of recent studies of hacking that have positioned rhythms of "code work" [15, p.14] as curtailing political and participatory flexibility. Irani's hackathons, for stance, showed how alignments with hacking further curtailed forms of wage and care work: limiting participation by people with livelihood or family commitments.

Returning to our project, design workshops would seem to share the same potentials for participatory production. Our events offered moments for reflecting on artefacts and skills through the lens of repair and reinvention. They also constrained participatory action by limiting the types of mends participants could produce, how long they could work, and what materials they could use. However, unlike hackathons, our design workshops acted as a means of engagement with our participations, a strategy for cultivating connections in line with community-based projects [22].

To account for shifting and indeterminate goals such as parental obligations or concerns for wage labor, a workshop scheme might draw on other toolkits for inquiry [6,17, 18,19,21,24,26] and participatory traditions [12, 14, 19, 36] that more flexibly adapt to new modes of practice. Enabling some participants to participate online and others through sketching, models, hands, robots, and so on. This includes recognizing collisions between participant and the research team as well as tensions among participants as a productive lens into social worlds [18]. Opportunities to participate in meaningful debate might come from surfacing contested practices and ideals, revealing a certain strength to contrasts.

#### Investment and Relevance

In developing our workshop project we quickly learned the importance of connecting with members of a community of practice already invested in a given project. Meaningful engagement comes from identifying a topic of significance and relevance — both to the research community and the partnering community of practice. Does this community care to organize around the remixing of fabric? What is at stake in the workshop outcome? What kinds of resources are people willing to commit? In our workshops, the groups cared little about novelty and more about the maintenance of object relationships and the execution of established techniques. This made precious fabrics poor candidates for reinvention and cast expert menders as a poor fit for quick design outcomes. Our design workshops became costly interactions, demanding slow timeframes and significant investment by everyone involved.

By investment we refer to commitments that extend beyond the scope of the fieldwork encounter. By starting with this commitment, researchers might identify questions that members wish to tackle as much as (or more than) the research team. Concerns raised by Darcy, Margaret or Diane, for example, might have focused on a pairing activity along the bias (cross-grain), techniques for darning (repairing holes on worn fabric), or reworking historical items with appropriate scraps. Grounding our workshop constructs on the realities of participation suggests viewing a workshop as a situated innovation: "an imagination of what could be, based in knowledge of what is" [36].

## **Design Workshops as Interventionist Encounters**

With these tactical suggestions in place, we wish to consider how a conceptualization of design workshops as field sites, research instruments and programs of study clarifies attempts to bring intervention to CSCW inquiry. We initially aimed to examine mending meetups to understand collaborative processes in fabric remixing. By shifting the organization of mending practice, however, we learned something about the kinds of subject matter our workshops engendered: how our interventions sustained, curtailed and transcended our objects of study. Just as they opened up creative possibilities overlooked by other modes of investigation, our workshops imposed limitations on time and participation that privileged some forms of work over others. During our interventions, we began using the form of the workshop as a mechanism for inquiry and examined alternative constructions of our interventions along the way.

Rather than write our project off to problems of inconvenience or naivety, we offer this reflection as a call for CSCW to "become more artful" [18, p.143] in its ideas of method — expanding the reach of its investigative imagination to new formulations of research practice. For our project this could mean extending beyond a workshop format to the realm of exhibition, exploring what a public solicitation for mending might bring to a confluence of systems developers, artisans or urban dwellers. Artist Michael Swaine has explored this approach with his mobile "mending library," a cart-mounted sewing machine he peddles around San Francisco's tenderloin district to offer mends to those he meets. As we further develop digital forms of intervention, our ways of grappling with the making of community and its reconstruction across emerging computing platforms stand to benefit from unconventional knowledge transmissions. A design workshop invites a treatment of collaboration and interdisciplinary as a localized and imaginative practice.

This paper has argued for a more engaged understanding of design workshops – one that attends to the collective work that absorbs and conversely shapes our research practices. Building on efforts to explore the "entanglement" [18] "mess" [21,22] and "living experiment" [26] of method, we suggest mobilizing workshops along new lines: bringing interventionist encounters into relief as sites, instruments and programs of collaborative study. Our hope is to continue CSCW's reflection on what Lury and Wakeford [24, p.2] call the "irreducibly unstable relations between elements and parts, inclusion and belonging, sensing,

knowing and doing." We hold that as CSCW continues to integrate interventional and exploratory approaches, it faces new opportunities for interrogating the limitations of method in relation to the shifting significance and materiality of collaborative practices. Here we saw mending activity rely on the complementary ideas of production and invention, with concerns for flexibility kept at bay. Our recognition that core rhythms and categories of investment remained outside our analytic attention suggests attending to emerging distinctions within and around the workshop encounters. Workshop procedures show how categories for empirical investigation can narrow the scope of possibility for observation and analysis. Through this confluence of observation, participation and design, we continue to question the ways collaborative settings shape methods of all kinds.

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