

Chapter 3

Rethinking Cultural Probes in Community Research and Design as Ethnographic Practice



Scott Townsend and Maria Patsarika

Introduction

As interdisciplinary collaborators that combine research with application directly, we are interested in enlarging on methods that “make the everyday world its problematic” (Smith, 1990: 28), “...where the body, emotions, and senses are viewed phenomenologically, together with an increased focus on representation” (Liebenberg, 2009: 443). How can methodologies, tools, and methods support “data” and interpretation of how the world is experienced and understood by social actors, and how does their participation become part of their interventions in their communities? Specifically, we are interested in examining precedents from participatory design of “cultural probes,” acknowledging their ambiguous position in design and research, along with other methods and methodologies that help to identify, unfold, and build on the traces that researchers and community members “leave behind.”

In this chapter, we explore these questions first by means of a brief review and assessment of the ideologies and application of design methods and tools in participatory, social design, with a particular focus on cultural probes. We then present two case studies from design research that takes place in Greece and the United States and led by one of us (Townsend). In these two case studies, “cultural probes” are applied as enablers of dialogue and sensemaking between researcher and community member in open-ended public practices. Our intention is to draw attention to the participatory design “trail” that researcher-participant interactions reveal,

S. Townsend (✉)

Department of Graphic Design, North Carolina State University, Raleigh, NC, USA
e-mail: sttwn@ncsu.edu

M. Patsarika

Social Design Institute, University of the Arts, London, UK
e-mail: m.patsarika@arts.ac.uk

specifically the possibilities for understanding community members' social, cultural, and historical identities that underlie their sense of place, desires, and perceptions of change and can support reflexive dialogue and design co-creation with researchers.

Exploring the social world through the lens of culture and representation may be less analytically precise than sociology's or anthropology's focus on "structures." And yet, traces allow us to "fill" social structures with history and identity, relations, desires, and struggles—what arguably makes up the "social." From our interdisciplinary perspective, therefore, traces open up possibilities for understanding the coproduction of the social world and individual actors' intentions, needs, and aspirations (Banet-Weiser, 2010).

Design and "Social Worlds"

Social Inclusivity Within Design Discourse

Published in 1971, designer Victor Papanek's *Design for the Real World* introduced critiques ostensibly about consumption and green politics. More recently, Clarke argues that Papanek contributed to notions of "... a holistic design approach that embraced design inclusivity ... premised on a broad recognition of social inequality; as summarized by Whiteley, there was no justification for designing trivial and stylish consumer items for the affluent of the advantaged countries, when the majority of humankind was living below subsistence level" (Clarke, 2013: 153). In Clarke and Whiteley's re-evaluation, Papanek's influence on participatory design in the 1960s and 1970s, especially in Northern Europe, has greatly influenced the discourse and practices of contemporary design and social inclusivity. Design is for the most part still complicit with constructing the social for good or ill, and while designers may attempt to address manifold issues of inclusion and representation as these unfold in the "real world," they are part of complex, technocentric, and market-driven systems of governance and production that typically streamline and reduce the complexity of social issues in representations, in what is still broadly perceived as a process of reductive "problem-solving."

"Frameworks of the Social": From Homogeneity to More Diverse Motivated Viewpoints

Contemporary ideas of social design utilize a broader mandate for change through participatory approaches and collective outcomes in addition to market objectives (Armstrong et al., 2014: 15). Rather than shying away from the challenges and power issues inherent in a dialogic modus operandi, these perspectives urge a critical examination of the interplay between design and broader structural and cultural

issues (e.g., Björgvinsson et al., 2012). Many scholars exploring social interactions in design can be seen to have moved away from consensus-driven and politically neutral perceptions of design to embrace an approach to design participation rooted in an outlook that sees the struggles and tensions among stakeholder groups as key political acts in democratic contexts of collaboration. This resonates with the early Scandinavian model of participatory design that sought to challenge hegemonic voices and foreground excluded people's voices (Björgvinsson et al., 2012).

Within these often conflicting agendas, how do we approach the representation of others and their participation? From a broader interdisciplinary perspective, the methods and tools employed in design to empower marginalized people and advocate their social histories and needs often escape critique (Harding, 1993).

Media Representations

For example, research on contemporary storytelling employed in truth commissions, advocacy projects, newsfeeds, and social media suggests that people's complex life histories are presented reductively through victim typologies and short, emotional narratives that are stripped of context and history. Storytelling practices of this kind tend to individualize collective struggles, while the structures and politics that determine marginalized people's everyday lives and struggles are set aside (Fernandes, 2017). In other words, while personal testimonies are sought to give voice to those who are powerless and marginal, media representations can be reductive within a simplistic narrative, often silencing other stories and voices. Looking at stories as curated, standalone texts, disembedded from the storyteller's everyday life and social networks, and not as an unfolding dialogical process, is thus likely to compromise both the complexity of people's history and social life and the storyteller's meaning-making, agential capacities.

Instrumentalized Design Methods

While methods in the social sciences are part of an overall research agenda, methods chosen in design practice to understand people and contexts (primarily defined as "users") are often chosen arbitrarily. For example, the highly successful book *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions* (Martin et al., 2012) gives two-page overviews of various methods extracted from a range of disciplines, including the social sciences. As an overview or series of abstracts, "UMD" introduces students and others, while the authors take pains to provide a conscientious bibliography of original sources. However, designers (as a worst-case example) often choose a particular method from the book to use as a quick exercise with potential "users" to lend validity to a design proposal. This "toolbox mentality"

stems from an acceleration and acceptance of instrumentalist values that have become the core of design, business, and education to assert control in response to increasing conflicts in social and cultural realms. Consequently, design interventions and modernist-inspired solution finding continue to be critiqued as abstracting and devaluing lived, material experiences, instrumentalizing community knowledge, and compromising people's agency while potentially exacerbating complex problems (Escobar, 2018).

Methods and "tools" have an embedded "intentionality" in how they, in turn, shape perceptions and experiences of the user (or participant) by their perceived affordance and use in context. While design readily embraces the social with democratic claims, such as "everybody designs" (Manzini, 2015), viewing the world through a mindset of interdependence, it is still governed by a toolbox mentality made manifest in design practices and visual representations of the world (Julier & Kimbell, 2019). A toolbox mentality, we argue, reflects an instrumentalist rather than a more reflexive approach to understanding the social, potentially missing culturally embedded nuances and indexical forms of representation, among other things—what we refer to as "traces"—in the way in which people give meaning and form their social practices and how researchers engage with and interpret these social practices, informed by their disciplinary-led traditions.

The Tie Between Reflexive Research and Design and Social Innovation

Reflexive approaches to qualitative research can help in interrogating discipline-specific assumptions about knowledge and appreciating the inter-relationship between subjective and methodological concerns, leading to more rigorous research (Harding, 1993). This calls for an open, explicit negotiation of the relationship between researcher and participants, starting from a recognition that both parties carry their own cultural, social, professional perspectives and interests and, subsequently, that the outcomes of the research process reflect such a negotiation of cultures and intentions (Palaganas et al., 2017). Ezio Manzini, a professor at Milan Polytechnic and proponent of "design and social innovation," discusses the process of "sensemaking" to eventual "problem-solving" as a co-design process of catalyzing existing context-specific knowledge in communities. This aligns with the greater intent of reflexive research, placing both design and research in the community as dialogical and responsive. The starting point of our research is based on principles of design and social innovation, specifically expanding on Manzini's emphasis on "diffuse" design, where local knowledge is recognized as fundamental and equal to the specialized knowledge of a formally trained researcher and designer (Manzini, 2015) (Fig. 3.1).

"Sensemaking" in local settings is based on examining the "traces" (in the sense of semiotics, i.e., indexical forms of representation) of people/communities. Since

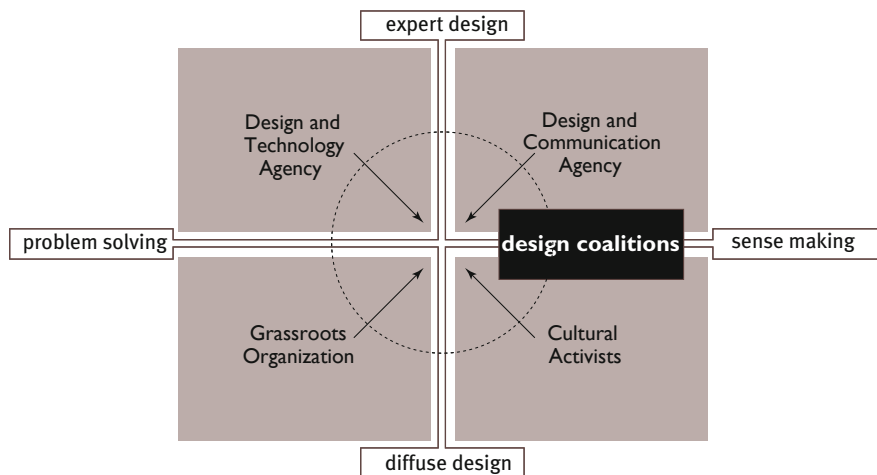


Fig. 3.1 After Manzini (2015), modified

this model implicitly is based on “border crossings” between different groups (cultural, disciplinary), the role of interpretation must be consciously and reflexively constructed (Liebenberg, 2009) to understand attitudes, practices, and experiences. “Problem-solving” in the latter design proposals is most useful where the actual production of a solution is more reliant on the communities’ shared expertise and technē. The community/network can become co-authors and influence the ongoing changes and design interventions concretely as adopted changes in practice and developing agency. As design becomes more situated and experience-oriented, a cycle can be created, reminiscent of participant action research (Santos, 2013; Fals-Borda & Mora-Osejo, 2003). For example, sensemaking and problem-solving are reliant upon veridicality and judgment about changes in lived material experiences—does change adequately respond to ongoing issues of people and communities? How do groups and individuals dynamically respond to each other? How do other ideas and resources, through a larger social and economic realm, get synthesized into a local context?

A Participatory Method: Strengths and Weaknesses in “Cultural Probes”

Cultural probes are extensively discussed in design research and practice as enabling users’ culturally embedded and contextual understandings and experiences to emerge and inform the design process (e.g., Graham et al., 2007; De Leon & Cohen, 2005; Gaver et al., 1999, 2004). Broadly speaking, probes are shown to invite users’ open, informal, inspirational, and playful perspectives and chance observations. They provide a trigger for memories and ongoing dialogue with design

participants, while also giving informants control over their use, especially when given to them to autonomously record and reflect upon their understandings and the collectivities they draw upon. Gaver et al. (2004: 56) caution against “scientific” uses of probes, acknowledging that “the returns are layered with influence, ambiguity, and indirection.” Elsewhere, Gaver et al. (1999: 24) explain their focus and intentions behind the application of probes: “[...] we concentrate on aesthetic control, the cultural implications of our designs, and ways to open new spaces for design. [...] trying to establish a role as provocateurs (25).” The above suggests that probes were initially developed as physical packets aimed to encourage participant engagement with the design process and allow designers to take away users’ perspectives “while explicitly maintaining room for their own interests, understandings and preferences” (Gaver et al., 2004: 56).

Much of the literature discussing probes neglects, however, to document what happens between probe and design and thus fails to account for the interpretation and implementation process that takes place. Instead, probes tend to be applied as ready-mades with set directions for use, without consideration of contextual, social, cultural, or other factors that may affect researcher-participant communication, understandings, and interpretations. Probes are abstracted representations of researchers’ questions and intentions; when applied by community members, the takeaway is a representation, too, of their understandings and responses, which are then given meaning to by designers working solo.

To give an example, Celikoglu et al. (2017) report on the engagement with probes of users (application and generation of data) and designers (data interpretation) in a project that explored tasks associated with ironing. When it comes to the user-participant group, the intention was to understand the situated order in which a chain of tasks unfolds (i.e., washing, drying, collecting the clothes, ironing, and hanging) and the use of related products (iron, ironing board, laundry basket, etc.) The “ironing probes package” included a diary and a task book that was returned with descriptive materials, such as daily narratives, photos, and drawings. The designer-participants were instructed to take the probes packages as a starting point to explain how they make sense of them toward a new ironing board design. The designers engaged with user responses, generating “ideas for a new ‘system’ or a new ‘experience of ironing’, rather than for an ironing ‘product’ as instructed in the design task,” and were “highly selective when deciding what mattered among the data contained in users completed probes packages” (92–93). User-participants commented that “... the packages [are] ‘too structured’ in terms of impositions on their daily lives [while the] interaction between the researchers and users during the probing process is lacking” (96). All in all, this example shows how the interpretation of data inevitably goes through several layers of representation, where the negotiation of both party’s subjective understandings and the situated nature of the probes’ responses may be downplayed in the absence of dialogue (Boehner et al., 2007: 1079–1082).

Critiques (e.g., Boehner et al., 2007; Dourish, 2006; Matthews & Horst, 2008) have problematized the shift from a seemingly open to a more closed interpretation of people’s perspectives, typically represented and abstracted through digital or other

media, rather than presented and, even, debated within the situated activities in researcher-community member encounters. More broadly, an interrogation of the “virtualism” of design methods is voiced by Julier and Kimbell (2019: 19): “Illustrated outputs of social design, such as personas or user journey maps, can travel through networks of project partners detached from specificity and grounded actuality. Persons are actual, but personas are virtual. Such virtualism masks the reproduction of inequalities by performing change that cannot actually happen.” Even when members are encouraged to directly reflect on their ways of being, Collins and Evans (2017: 15) argue, this is not a straightforward process: “descriptions of a social world by its members often draw upon received ideologies or myths, rather than social life as it is lived. Probes must go beyond this [...] to enable participants to make their taken-for-granted assumptions and practices more visible.”

Much of the debate on probes and their uses in participatory design derives from associations with ethnographic methods. Probes, however, were not intended to generate data in the first place, whereas ethnography goes beyond data gathering to analyze socio-cultural meaning and practices embedded as they are in specific settings (Boehner et al., 2007: 1083). An analogy between probes and fragments, on the one hand, and ethnographic methods and traces, on the other hand, as we perceive it, might be useful: the first point to inspirational, yet elusive and sporadic, clues that are highly subjective; the second enable traceable associations with cultural, meaning-making practices within community settings. The limitations of cultural probes, as well as their controversial appraisal in relevant literature, have been characterized as a “discount ethnography” technique (Dourish, 2006: 548), symptomatic of a lack of clarity about the role of the researcher and the process of generation and interpretation of data. This challenges designers to capture the “actual” in situated environments, in distinction to the play of mediated symbols, or, more specifically, how the world is experienced and interpreted by social actors and how change manifests itself in people’s lives, as well as the potential for design to develop into a socially embedded practice.

Reflexive methodologies suggest interfaces between the researcher and others, while cultural probes function as speculative “black boxes” in design. We would like to extend uses of cultural probes toward amplifying local culture, as intermediaries between the past and the present while encouraging locals to articulate future possibilities. We appreciate the subjective engagement that cultural probes encourage and their idiosyncratic character that highlights participant biographies; however, we also aspire to see them embedded in cultural and social practices providing occasions for enacting social and cultural meaning and articulating complex narratives and dialogical zooming in and out across space and time that brings forward traces of history and social issues, as well as subjective realities and understandings in the here and now.

Case Study 1: Ongoing Design Interventions Kefalonia Greece

“Sensemaking”

As a separate project, one of us (Townsend) originally developed an inquiry into local perceptions of history and community in Southern Europe vis-à-vis EU identity and the role of design and branding. One of these communities was in Greece, originally starting as an inquiry into local perspectives on issues of austerity. The original 2015 interviews were unstructured based on personal biography. Narratives developed out of personal experiences keyed to historical markers, for example, the Civil War era, a devastating earthquake that depopulated the island after 1953, economic development in the 1980s and 1990s, and the current austerity and post-austerity period. Working with a community network in Kefalonia and the Ionian Center for Arts and Culture subsequently developed into a long-term engagement with design and social innovation, where student teams from the United States (College of Design, North Carolina State University) and students from the American College of Thessaloniki (Greece) worked with community stakeholders and networks of academics and government authorities in the Ministries of Education and Culture.

A hybrid research method was developed based on cultural probes and ethnographic methods. From initial interviews, common references were used to develop a “negotiating tool” based primarily on local practices. This combines the fragmentary and ungrounded qualities of a cultural probe with more traceable ethnographic methods that connect back to social practices and shared interpretations between participants and researchers. Second-round interviews took place in the interviewees’ suggested location. Participants were encouraged to invite a colleague or friend while following local practices of “coffee and food” brought into the space. The artifact is designed to be cheap and portable and can be placed on a desk or kitchen table, used in mediating and visualizing different experiences and points of view between the two participants. These negotiations are primarily independent of the researcher and take place between the two participants. These discussions build out to shared personal biographies and include negotiating individual and collective values, or experiences as chronological narratives, followed by collective experience sharing, leading to negotiated values. Unstructured group and individual interviews were conducted, and key themes emerged from the gathered data. Later in 2019, archaeological documentation as part of our ongoing collaboration, along with local archive research, helped us to understand historical (archive) and place-based (site photos) references, especially regarding social practices, extended family connections, and key historical recollections (Figs. 3.2 and 3.3).

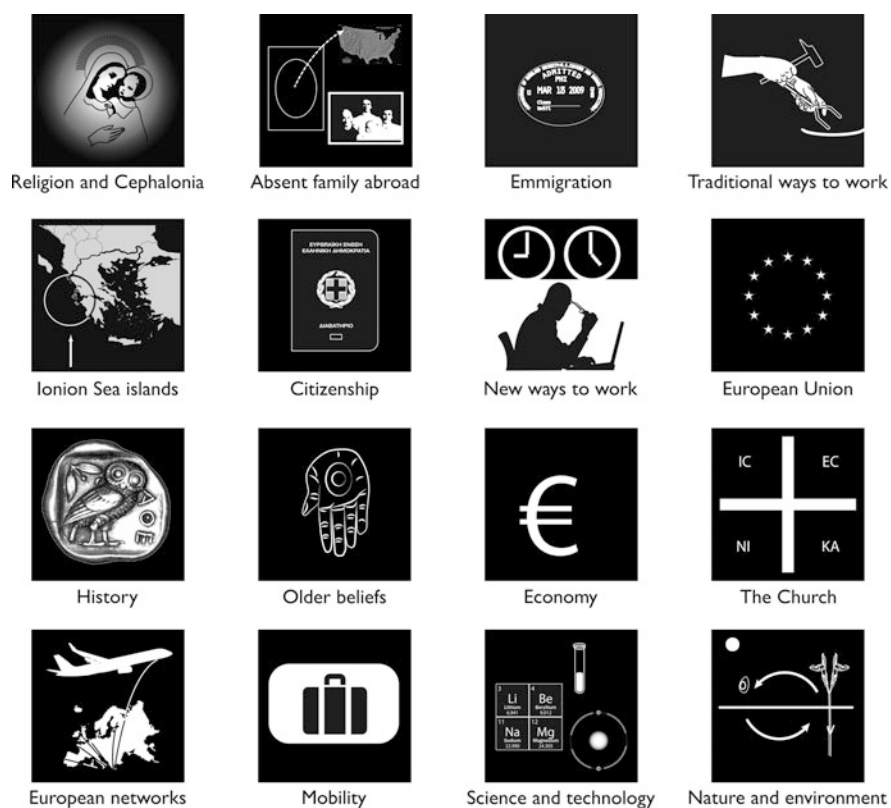


Fig. 3.2 Common references

Common References from Initial Interviews

- **Local Identity**
 - The role and practice of religion
 - Traditional ways to work
 - Nature and environment
- **Regional Identity**
 - The Greek Orthodox Church
 - History
 - Older beliefs and practices
 - The economy
- **Greek Citizenship/Cosmopolitanism**
 - European networks
 - Mobility

here/negative εδώ/αρνητικός	here/negative and positive εδώ/αρνητικός/θετικός	here/positive εδώ/θετικός
here and abroad/negative στο/εξωτερικό/αρνητικός	here and abroad/both negative and positive στο/εξωτερικό/αρνητικός/θετικός	here and abroad/positive εδώ/στο εξωτερικό/θετικός
abroad/negative στο εξωτερικό/αρνητικός	abroad/negative and positive στο εξωτερικό/αρνητικός/θετικός	abroad/positive στο εξωτερικό/θετικός

Fig. 3.3 Matrix

- Science and technology
- The European Union
- **Diaspora Identity**
 - Emigration
 - New ways to work
 - Personal isolation

Ethnographic methods broadened to include more public discussions, where motivated community stakeholders solicited designers in solving immediate problems. Stakeholders included local educators, the 35th Ephorate for Prehistoric and Classical Antiquities, the Focas-Kosmetatos Foundation, and other ongoing community initiatives. Based on a long-term exchange, a common concern centered on preserving place-based local identity while creating a sense of cosmopolitan

engagement in the EU and elsewhere. Specific needs of strengthening community engagement in museums and educational activities were discussed. Currently, many local institutions use entrepreneurial strategies working with national and international networks that are combined with local and community resources. The first multi-stakeholder effort is now strategically focused on museum practices, education, as well as more user-centered proposals for connecting with diaspora communities through digital networks. The first design proposal is about the modification of practices in local education in secondary schools as an educational unit in instruction. This shifts museum education directly to educational institutions that have human and capital resources while increasing intergenerational participation through interviews, photo documentation, and historical preservation and archiving as an augmentation to local museums.

Design Proposal

Project 1

Transitioning from participatory research to an actual design project, this design intervention aids in negotiating interpretations of local histories in an educational unit in a high school curriculum. Students at the 2nd Secondary School of Argostoli will interview members of their family and community who experienced and remember key events and social practices in the 1950s. In doing so, they will also document and describe the significance of an object, photo, or other things that holds personal significance to their interviewees and is associated with the era.

The data out of students' initial research will be analyzed and documented in digital templates/archives that the school will maintain for the community to enrich with future community research. The digital template, audio-visual data from students' interviews, and printed examples of the collected artifacts will all be exhibited in a day event co-organized with and intended for the school and the local community. Engagement in the community context helps in negotiating a public, place-based history along with understanding both larger social, cultural, and political connections in local place-making. Photographs based on individuals' objects and spaces will act as a prompt for recorded interviews. Open-ended assessments will then be shared, looking for connections or "thematic" clusters of common community experiences (Fig. 3.4).

Project 2

Project 2 includes augmenting local historical collections in museums. Each recreated object is based on a first-person story within larger historical events. The objects are inspired by the common objects that are displayed in the museum and are similar

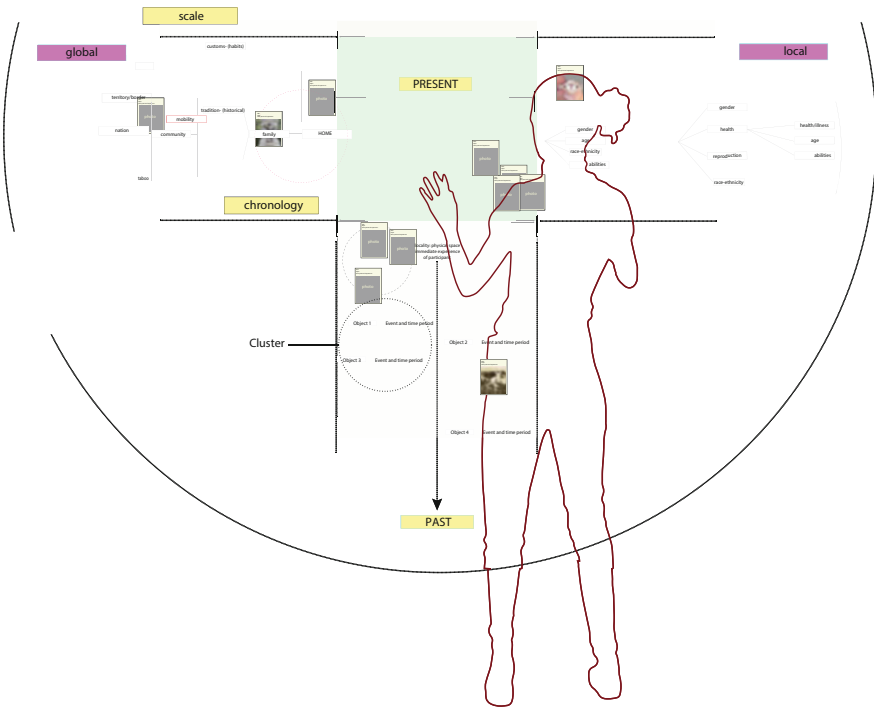


Fig. 3.4 Organizing images and text in “living history” scenarios: individual references in the collection are organized through “scale” (global to personal: horizontal axis) and chronology (vertical axis) using written descriptions, connections, and clustering

to museum interpretative practices. Additional programming can be created through modifying the itinerary to include other settings and locations and can be self-guided with reusable pamphlets or through simple websites optimized for mobile phones or part of a formal tour that can be combined with events in the museum directly. Daily informal encounters with the installations act as a reminder of historical events in the spaces that they occurred in.

Case Study 2: Graduate Research Group, United States

Concurrently in a graduate research group one of us (Townsend) is leading in the Department of Graphic Design, North Carolina State University, students are provided a framework for exploring reflexive methods in communities to ongoing community participation in design solutions, which oft time is about community representation, design of services, and long-term changes in social practices. Conceived as a “making seminar,” within the existing course structure of the Master of Graphic Design program at North Carolina State University, the course provides background and experimentation in developing a hybrid series of modest probes

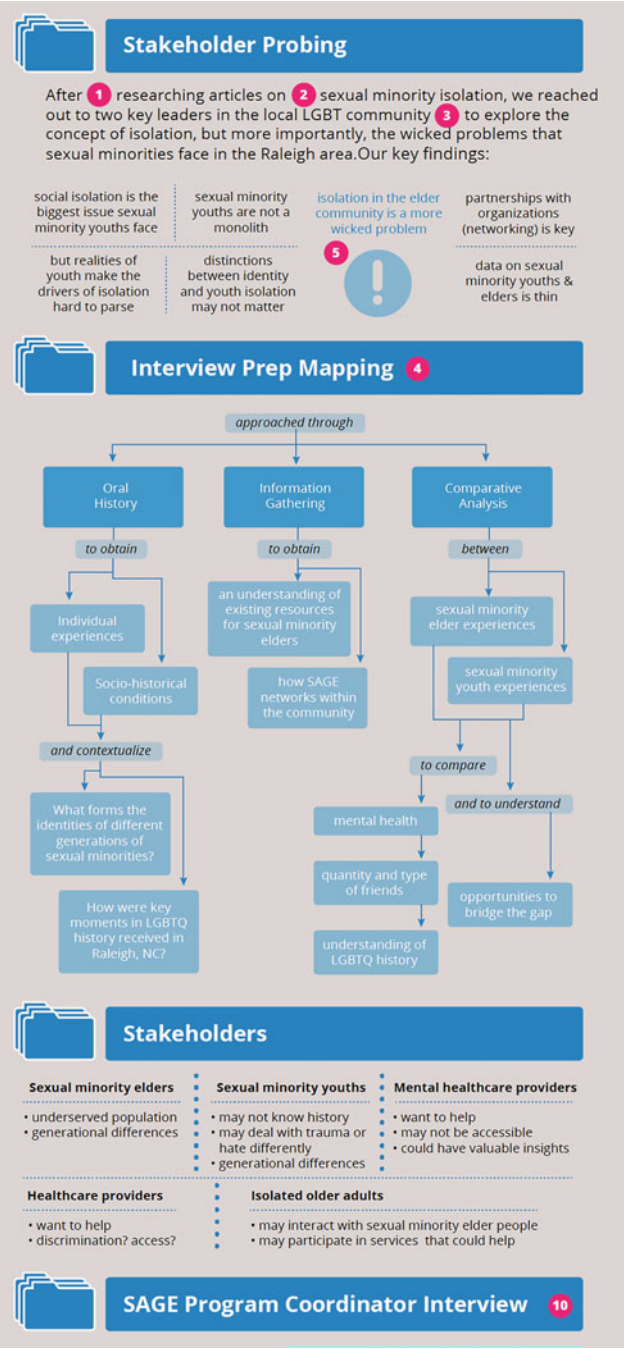
equally based on reflexive ethnographic methods (such as Liebenberg) and the legacy of cultural probes from design.

“Sensemaking”

In one two-person team, semi-structured interviews were conducted in the LGBTQ community with stakeholders that are involved in non-profit community organizations, regarding local history and community. Additional methods included site surveys of locations, literature review, and GIS data on support for different initiatives such as state-wide referendums on LGBT issues. Stakeholders include sexual minority elders as an underserved population facing generational differences; healthcare providers who may not all understand fears sexual minority elders have about access and discrimination; sexual minority youths that can benefit from knowing the history and benefit from learning how others deal with trauma and hate; and isolated older adults that may interact with sexual minority elders and may participate in services that can be tapped into.

As LGBTQ rights become law in the United States, some members of the community have begun to consider generational issues and experiences including social isolation of people over 50. The social forces that shaped this generation are now “historicized.” The experiences of Stone Wall (1969), HIV/AIDS and the Reagan era of the 1980s, and “don’t ask and don’t tell” policies of the 1990s, popular culture, and social practices have helped shape a shared identity. For younger people in the community, these circumstances are seen as increasingly remote regarding their sense of community and identity. Secondly, isolation can be understood as social isolation as well as geographic isolation especially in rural areas of the state.

The team’s initial discussions centered on the following questions: What are the generational differences within the LGBTQ community? How do elderly sexual minorities seek out community and where is it found? What are the causes of isolation within sexual minorities and what are the barriers to overcoming it? As part of ongoing research leading to participation in the design process for an eventual design proposal, a modified “probe” was created based on ideas that came out of initial interviews and as an extension into ethnographic methods. In these interactions, participants redefined the initial assumptions of the researchers about what constitutes a “neighborhood” to a concept of “social network” that is based on daily and weekly routines of social contact outside of a traditional neighborhood, a fundamental issue in dispersed “exurban” US communities like the “Triangle” region in North Carolina. Follow-up unstructured interviews based on individual maps led to descriptions of activities and valuations given by the interviewee. The nodes on the map led to relational understandings between the different subject matter covered, often including conditional circumstances or “compare and contrast” between things that might be understood as opposition or conflicts by the participant, for example, the relative value of work versus home and family (Figs. 3.5, 3.6, 3.7, 3.8, 3.9, and 3.10).



Stakeholders

Sexual minority elders

- underserved population
- generational differences

Sexual minority youths

- may not know history
- may deal with trauma or hate differently
- generational differences

Mental healthcare providers

- want to help
- may not be accessible
- could have valuable insights

Healthcare providers

- want to help
- discrimination? access?

Isolated older adults

- may interact with sexual minority elder people
- may participate in services that could help

SAGE Program Coordinator Interview **10**

Fig. 3.5 Stakeholder inventory

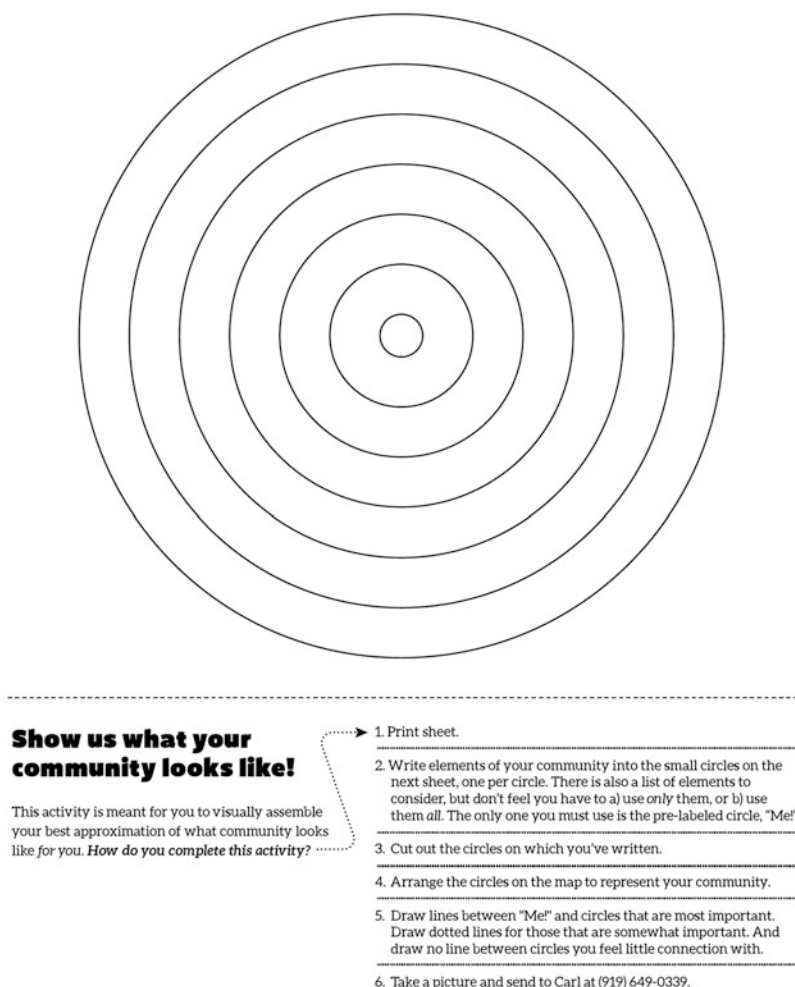


Fig. 3.6 Intro to mapping (online interface and through printable forms)

Design Proposal: “We Are Here—A Pride Raleigh Reclamation Project”

“We are here” is an umbrella term for a locally based project aimed at exploring and supporting 50+ sexual minorities and their concerns. This service design project is part of a larger movement, the Pride Raleigh Reclamation Project. PRRP works to reconstruct and preserve the history of sexual minorities in Raleigh and surrounding areas and partners with the LGBTQ Center of Raleigh and the City of Raleigh to address community needs and lobby for and against legislation to reach equal status and consideration. PRRP will use initial community outreach through the design

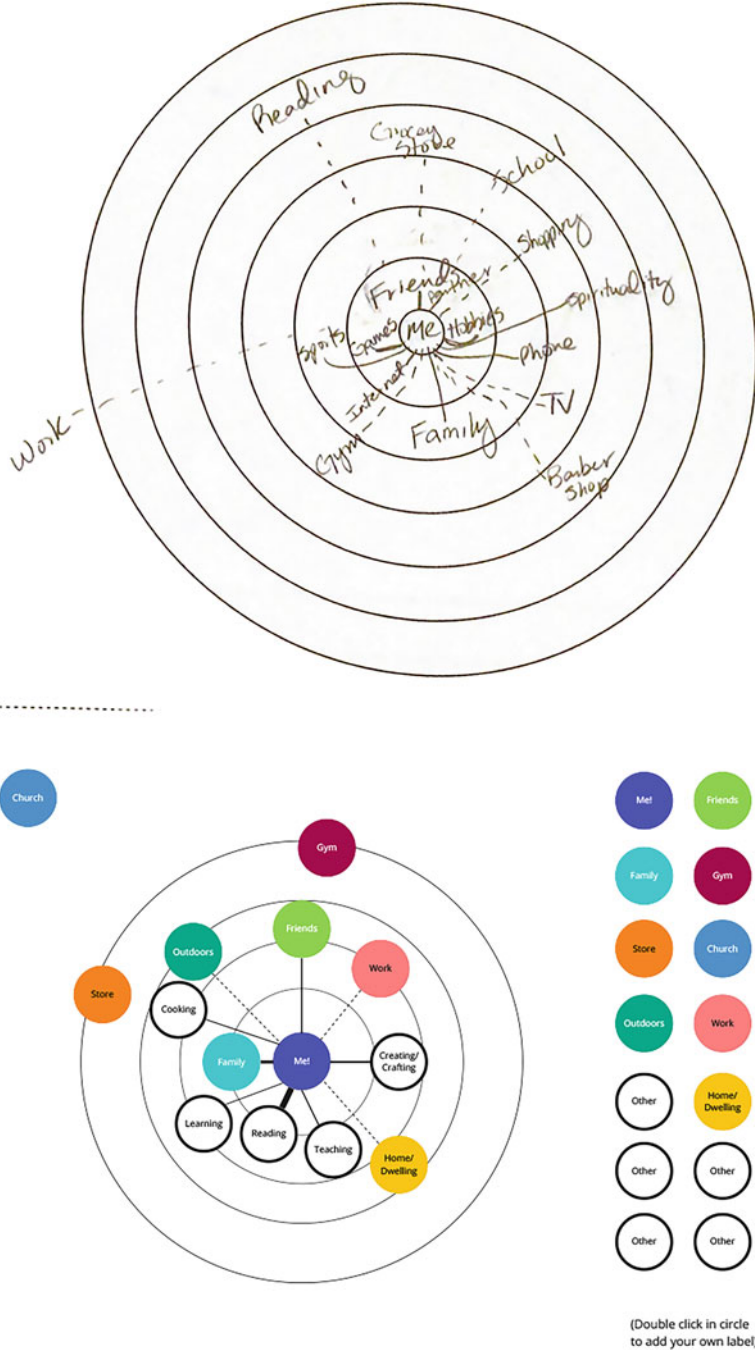


Fig. 3.7 Maps from participants

Participant 1

[illegible]

Participant 2

[illegible]

Participant 3

1. **Place your finger on the red dot**
(You don't have to use the stickers just yet)

2. **Place your hand so that you can touch the activities you feel most connected to.**
(Click the mouse once in that point, then click the mouse once to connect)

3. **Draw labels like "help" and arrows that are connected together**
(Just draw a line between elements that you feel have an connection with)

How does this activity identify options, resources, connections, new age of self?

How could this process of thinking and this activity be improved?

Is there anything you would like to be added (help, motivation, support)?

How would you prefer a paper version of this activity? What could you add?

When important things happen
 How many times have you been?

Visual connection to a tool designed for visualization
 How many times have you been?

Example of how to use diagrams to visualize connections
 How many times have you been?

How would you like to use the visual connection tool?
 (Draw a point)

Participant 4

1

Participant 5

[illegible]

Participant 6

1

Fig. 3.8 Maps created by participants

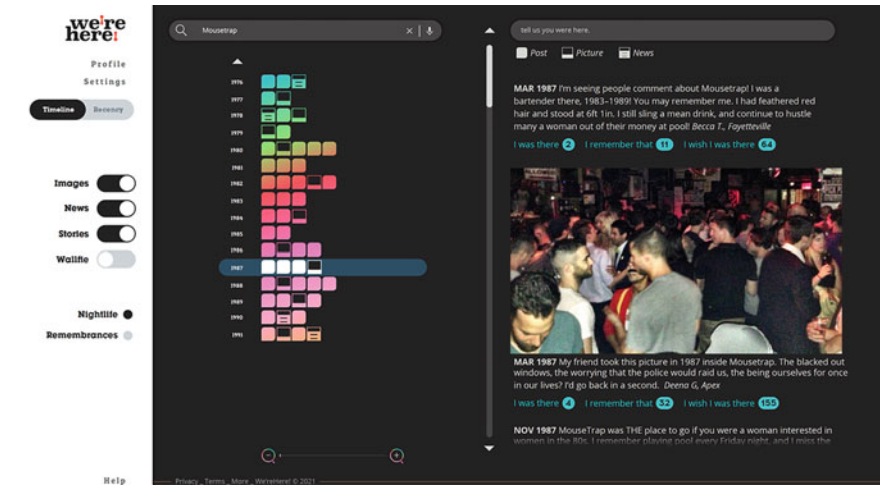


Fig. 3.9 Granular timeline designed to accommodate personal anecdotes within a larger shared history



Fig. 3.10 Larger outreach in the community

intervention to hone the concept of “We’re Here!” to the point where it can begin funding efforts. The initial proposal centers around a timeline-based website that allows people to record personal, historical, and landmark-based moments for sexual minorities in the Raleigh area over the past century. The concept extends to a Pride Park, with the primary focus being the Community Wall, where people can take selfies and group photos, and a digital wall mirroring the website timeline, where users tap on posts, photos, and news articles over time. Phase 2 builds on the first phase, spreading community to harder-to-reach targets like closeted individuals.

In these examples, the responsive modification of various “probes” in response to discursive discussion and shared interpretations between the researcher and participant creates a dialogical space that can provide a space for participatory design. Objects as design prototypes along with open storylines (or scenarios) of use can

lead to a more reflexive design framework through ongoing designing as social practices. Participatory design as an ongoing social practice in the community is processual as an ongoing and evolving “design intervention” rather than a final designed solution, supporting the notion of the designed environment as the inter-connections between objects, infrastructures, and “habits of mind” (Willis, 2006).

Conclusions

In this chapter, we have discussed how design methodologies and tools, specifically cultural probes, can fundamentally shape the exchanges between researchers and community members, including their interpretation and presentation of resulting data. We then presented two case studies where cultural probes reflected community members’ social and cultural practices as they developed in researcher-participant interactions. In this manner, working in communities can become a form of “public ethnography” as an effort to understand and analyze social practices from multiple knowledge and disciplinary perspectives, define social problems that often go unrecognized, and explore the subjective experiences of individuals without, however, prioritizing them over systemic social problems.

Conceptualizing designing with communities as a form of public ethnography can add social value to design. Design-led and instrumentalized approaches and tools were discussed as potentially standardizing peoples’ lived experiences in typified representations and excluding design participants from interpretation, thus rendering them mere informants. Ethnography, however, is “particularly suited for showing complex social relations” requiring that the researcher is in context and discovers extant things, rather than only confirming what one already knows (Vaughan, 2005: 412–413). The analytical strength of the ethnographic process goes beyond statements about community members’ experiences and practices, interpreted as they may be by researchers; instead, it is better “understood as the interplay between members and the ethnographer” (Dourish, 2006: 543). In other words, the data that derives from participatory design interventions in the community that claims to be socially inclusive cannot focus solely on how people engage with social practices and culture but also on what new meanings these interventions may acquire when appropriated and embedded in social practice (idem: 546).

Ethnography can benefit, too, from design’s problem-solving approach, proactive practice, and interventions, by sustaining a dialogue with the community in ongoing co-creation (Segelström & Holmlid, 2015: 141). Ingold (2014: 388) calls this process *edification* (after Rorty 1980), i.e., the process of keeping the conversation going and responding to community needs with long-term and open-ended commitment and attentiveness. The expansion of design projects in communities is likely to invite critique and novel perspectives on the applicability, relevance, or transferability of design interventions and generate new conversations on change on a social level. We view this process as a fruitful synergy between design and ethnography, moving beyond the dominance of methods in design practice while expanding on the

affordance of cultural probes and engagement between researchers and community members as socio-cultural beings in context.

References

- Armstrong, L., Bailey, J., Julier, G., & Kimbell, L. (2014). *Social design futures: HEI research and the AHRC*. University of Brighton.
- Banet-Weiser, S. (2010). Afterword: Traces in social worlds. In H. Gray & M. Gomez-Barris (Eds.), *Toward a sociology of the trace* (pp. 289–292). University of Minnesota Press.
- Björgvinsson, E., Ehn, P., & Hillgren, P. A. (2012). Agonistic participatory design: Working with marginalised social movements. *CoDesign*, 8(2–3), 127–144.
- Boehner, et al. (2007, April–May). How HCI interprets the probes. In *CHI proceedings designing for specific cultures*, April 28–May 3, 2007. San Jose, California, USA.
- Celikoglu, O. M., Ogut, S. T., & Krippendorff, K. (2017). How do user stories inspire design? A study of cultural probes. *Design Issues*, 33(2), 84–98.
- Clarke, A. J. (2013). “Actions speak louder” Victor Papanek and the legacy of design activism. *Design and Culture*, 5(2), 151–168. <https://doi.org/10.2752/175470813X13638640370698>
- Collins, H., & Evans, R. (2017). Probes, surveys, and the ontology of the social. *Journal of Mixed Methods Research*, 11(3), 328–341. <https://doi.org/10.1177/1558689815619825>
- De Leon, J. P., & Cohen, J. H. (2005). Object and walking probes in ethnographic interviewing. *Field Methods*, 17(2), 200–204. <https://doi.org/10.1177/1525822X05274733>
- Dourish, P. (2006, April). Implications for design. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 541–550).
- Escobar, A. (2018). *Designs for the pluriverse*. Duke.
- Fals-Borda, O., & Mora-Osejo, L. E. (2003). Context and diffusion of knowledge: A critique of Eurocentrism. *Action Research*, 1(1), 29–37.
- Fernandes, S. (2017). *Curated stories: The uses and misuses of storytelling*. Oxford University Press.
- Gaver, B., Dunne, T., & Pacenti, E. (1999). Design: Cultural probes. *Interactions*, 6(1), 21–29 (originally). January/February 1999, from <https://interactions.acm.org/archive/view/jan.-feb.-1999/design-cultural-probes1>
- Gaver, W. W., Boucher, A., Pennington, S., & Walker, B. (2004). Cultural probes and the value of uncertainty. *Interactions*, 11(5), 53–56.
- Graham, C., Rouncefield, M., Gibbs, M., Vetere, F., & Cheverst, K. (2007, November). How probes work. In *Proceedings of the 19th Australasian Conference on Computer-Human Interaction: Entertaining User Interfaces* (pp. 29–37).
- Harding, S. (1993). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575–599. <https://doi.org/10.2307/3178066>
- Ingold, T. (2014). That’s enough about ethnography! *Hau: Journal of Ethnographic Theory*, 4(1), 383–395. <https://doi.org/10.14318/hau4.1.021>
- Julier, G., & Kimbell, L. (2019). Keeping the system going: Social design and the reproduction of inequalities in neoliberal times. *Design Issues*, 35(4), 12–22.
- Liebenberg, L. (2009). The visual image as discussion point: Increasing validity in boundary crossing research. *Qualitative Research*, 9(4), 441–467.
- Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. MIT Press.
- Martin, B., Hanington, B., & Hanington, B. M. (2012). *Universal methods of design: 100 ways to research complex problems*. Rockport Publishers.

- Matthews, B. & Horst, W. (2008). What can we learn from the probes? The role of interpretation in contributions to knowledge. *Working Papers in Art and Design, Vol. 5*.
- Palaganas, E. C., Sanchez, M. C., Molintas, M. P., & Caricativo, R. D. (2017). Reflexivity in qualitative research: A journey of learning. *The Qualitative Report, 22*(2), 426–438.
- Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences, 4*, 155–169.
- Santos, D. (2013). Chapter twenty-four: (Participatory) action research and the political realm. *Counterpoints, 354*, 492–513.
- Segelström, F., & Holmlid, S. (2015). Ethnography by design: On goals and mediating artifacts. *Arts and Humanities in Higher Education, 14*(2), 134–149. <https://doi.org/10.1177/1474022214560159>
- Smith, D. E. (1990). *The conceptual practices of power: A feminist sociology of knowledge*. University of Toronto Press.
- Vaughan, D. (2005). On the relevance of ethnography for the production of public sociology and policy. *The British Journal of Sociology, 56*(3), 411–416. <https://doi.org/10.1111/j.1468-4446.2005.00074.x>
- Willis, A. M. (2006). Ontological designing. *Design Philosophy Papers, 4*(2), 69–92.

Scott Townsend began work in 2002 examining globalization issues vis-à-vis effects on communities through user interaction and visualization of data. Early projects examined border issues bringing together communities in conflict, often exacerbated by globalization. Exhibitions and related projects have been completed in over 90 national and international group and solo venues in the Czech Republic, Greece, Egypt, Cuba, Mexico, South America, Canada, Germany, Japan, Iran, Italy, Serbia, Venezuela, Cuba, China, and the United States. In 2023, the Center for Design and Material Culture (University of Wisconsin) will host an exhibition of work and processes expanding on principles of design and social innovation. Townsend has authored articles in *Zed, Statements, Brújula, Art Papers, Visual Communication, Design and Culture*, and *Design Issues* and co-authored for peer-reviewed publications outside the field of design. Dissemination through public venues, conferences, and research network presentations have taken place in Australia, Europe, China, and the United States. <http://www.imaginarycountry.org>

Maria Patsarika holds a Ph.D. from Sheffield University, Department of Sociological Studies and School of Architecture. Her research is on social learning, children's and young people's participation and place-making, co-design, and community engagement. Indicatively, her published work is included in academic journals, such as: *Children's Geographies, Discourse: Studies in the Cultural Politics of Education, Co-Design*, and *International Journal of Urban and Regional Research*.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

