Using Cultural Probes in Design Research: A Case Study from Bungoma, Kenya

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Cultural probes have long been used to provide designers with glimpses into the local cultures for which they are designing, and thereby inspire novel design proposals. Probes are designed objects—frequently packages—that contain open-ended, evocative, and ambiguous activities given to people to pursue, and return over a period of time. Fundamentally, they are meant to subvert traditional design methods. That is, the approach is intended to offer an alternative to the prevailing rational and scientific processes sometimes used in design. Despite their widespread use in developed contexts, there are few instances of using this subjective, design-led method in developing contexts. I describe my experience using cultural probes during the early stages of an ongoing design project in Bungoma County, Kenya. Returns from my comment cards and digital camera activities draw attention to probe recipients’ unique experiences and to Bungoma’s distinctive characteristics. These returns also inspired a series of speculative design proposals. My experience using this method motivates a discussion that elaborates on how a cultural probes approach can benefit design research by raising questions about generalizability, objectivity, and the pursuit of a single solution in design.

Cultural probes; design; Kenya; speculative design
I have been conducting fieldwork in Bungoma, Kenya for nearly a decade. I distributed these cultural probe packets to twenty-three households. You can see those here: a digital camera with these open-ended prompts, and this comment card activity. That is, I asked people to write responses onto them and put them in this box over a two-week period (Figure 1).

These are a samples of some of the returns. They have sat in my office for several years. I look at them, think about them, and I sketch ideas that are inspired by them. They remind me of what is going on in Bungoma when I am not there. I do not have time to share all of these returns, but I do encourage you to look them because they provide really beautiful glimpses of everyday life in Bungoma. Some of the responses are written in Swahili, some are written in English. They capture these moments that I have found can be difficult to capture using other research methods. “Be quiet and listen. What do you hear?”
"I kept quiet for some time. It was at night and I heard the frogs croaking everywhere loudly. I heard then some footstep of a dog called Mulika Mwizi barking. It was amazing."

Source: author
As I woke up early, I found my money which was lost for a week. I was so happy for the money and I rushed to the restaurant to have a cup of tea. It was a day I would never forget.” Source: author

There are also hundreds of digital photographs taken by participants. They also provide lovely glimpses into everyday life in Bungoma.

Coming back to cultural probes and how they are supposed to subvert traditional design methods. The analysis is not meant to result in a list of facts or a comprehensive understanding of life in Bungoma. Instead, the analysis process acknowledges the bias that is a part of data analysis more broadly. I acknowledge the way that my interpretation of the returns is influenced by me being a white middle-class woman.

Figure 5 Speculative design proposal. Source: author
Rather than developing a list of facts about Bungoma, I used the returns to inspire speculative design ideas. These are ideas that are necessarily meant to be developed and implemented. They are absurd; they can provoke questions. For example, mobile phones have been widely used in East Africa to deliver people important information, but this is an idea that asks, “What if we develop an app that could let research participants rate their researchers on the quality of the research interaction?” (Figure 5).

The takeaway is that this approach can benefit design by raising questions about generalizability, objectivity, and research, as well as the pursuit of a single design solution. My hope is that by asking these questions, this research can contribute to ongoing discussions about design and how it can create space for new forms of knowledge production. I have a longer version of this paper on my website.

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**Dr. Susan Wyche** is an Associate Professor in the Department of Media and Information at Michigan State University (MSU). She also has a courtesy appointment in MSU’s African Studies Center. Her research focuses on human computer interaction (HCI) and information and communication technologies and development (ICTD). This work has been supported by Google, Facebook, the United States Agency for International Development (USAID), the National Institutes of Health (NIH), and the National Science Foundation (NSF). Dr. Wyche is a 2015 recipient of an NSF CAREER Award. She received her Ph.D. in Human-Cantered Computing from Georgia Tech, an MS from Cornell University, and an undergraduate degree from Carnegie Mellon University. Susan was born and socialized in the US, and has been conducting research in western Kenya, since 2011. She travels there once or twice a year, stays for two to six weeks at a time, and broadly investigate people’s interactions with technology, especially mobile phones. Goals of her research include providing researchers and practitioners in HCI with an understanding of technology use in sub-Saharan Africa.