

**Dialogue Through Design:  
Visual Communication Across The Cultural Divide**

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## **ABSTRACT**

This thesis describes how a designer pursued dialogue and collaboration in the design process when a shared verbal language or assumed technologies were not present. From June 2008 to February 2009, a two-phase project explored the role of communication design in a rural community in Africa. It considered how principles of governance could be applied to create a more transparent dialogue during the design process and investigated the impact of a designer's presence and absence in this context.

During the project, a field bag was designed to act as a writing surface for ten women in Rwanda to use while participating in creative activities during the rituals of daily life. The activities were developed to help a designer have a visual conversation when working with individuals who do not share the same language, in order to discover the needs, assets, beliefs and desires of an individual or group before offering a design solution.

By introducing a design methodology into a development context, adaptive tools were created to increase the opportunity for appropriate and effective outcomes. By focusing greater attention on the unspoken needs of the underserved, the often overlooked potential of their ideas can be revealed and accessed for future innovations. From here, design positions itself as a discipline that embraces ambiguity in the midst of complexity when seeking to address significant problems in a sustainable fashion.

## **KEYWORDS**

Co-creation, co-design, sustainable development, human-centered, participatory, communication, appropriate technology, transformation, creativity, social impact, probes, democracy, governance, social innovation



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*For everyone to whom much is given, from him much will be required.*  
*Uwahawe byinshi wese azabazwa byinshi.*

Luke 12:48

*Luka 12:48*

## **PREFACE**

My interest in language and communication developed during my undergraduate studies in English Literature and this background has continued to inform my practice as a designer. Having previously spent time living and working in both Lithuania and Thailand, I acquired an interest in the intricacies of cross-cultural communication. A three-month internship in Rwanda, during my graduate studies, found me working as a communication designer for a sustainable development project. I designed a logo and website for a cooperative of weavers who were tackling an environmental problem and turning it into an economic opportunity. These designed outcomes were completed to fulfill the objectives outlined in the government grant provided for this project. While the website is a helpful tool, as a designer I was presented with a new level of inquiry around the role of design in a cross-cultural context. Since these women live on less than one dollar per day and lack access to computers and the internet, I became curious as to how my part of the project might be sustained once I was no longer present. Because we don't share the same language, I wondered how to access their ideas in as much as it would influence how, what and why I design.

## INTRODUCTION

This thesis will address how my experience working in Rwanda required that I look beyond my communication design skills (and presumed expertise) to consider the complexities involved when designing appropriate and relevant solutions for people living with limited access to clean water, health care and education. When a shared verbal language and technologies are not present, these complexities are pronounced and a designer must be prepared to adapt her process to accommodate them.

To evaluate my adaptations, I have divided this paper into two phases. The first phase occurred in Rwanda during the summer of 2008 while phase two was developed in Vancouver and applied in Rwanda from October 2008 until February 2009. These two phases consider how a designer can embrace the role of ambiguity in the design process and find adaptive methods to collaborate cross-culturally. In so doing, the designer has the potential to advocate for the most appropriate delivery of sustainable outcomes when working with multiple stakeholders on complex problems in unfamiliar environments.

I will point to various tensions I faced and explain how I applied an adapted methodology for cross-cultural design research to address them. This applied method allowed me to interact differently and shifted me away from a traditional posture of *working for* a client to *learning with* a participant. It also presented the opportunity to shift a commonly held view of the designer (and outsider) as expert. I wanted to collaborate through a more democratic process that would allow for the creativity of the underrepresented to surface when dealing with complex issues.

While language was relevant to my inquiry, I intentionally did not pursue an exhaustive study of linguistics as it was a larger undertaking than the scope of my project permitted. Because oral-based cultures typically use radio or visual media to transmit information to the masses, and tend to lack manuals or textual documents for the sharing of information,<sup>1</sup> my work has considered how the visual could be used in lieu of text. I have considered how to incorporate design tools and methods that can create a place for a visual conversation in order to gain a greater understanding of the needs and desires in a village before offering a design strategy.

When I speak of technology in this paper, I am referring to assumptions about high technologies (computers, internet access and even mobile phones) and the perception that they are available to

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1. Ong, Walter J., *Orality and Literacy: The Technologizing of the Word* (London and New York: Routledge, 1982),

the masses. While technology is valuable, its various forms are not always relevant or accessible to individuals in rural locations. An example of a controversial technological solution that has been considered innovative is the *One Laptop Per Child*,<sup>2</sup> developed by Nicholas Negroponte. This tool, while useful, shifts the focus away from some of the more primary needs, like clean water and health care, and seemingly does not consider how these might be just as important to include alongside the delivery of a laptop. For me, thinking through the administration and priority of a product becomes just as valuable as the product itself. In a context like Rwanda, a designer must continue to consider the whole system in the design process in order to avoid designing solutions that may not contribute to this system effectively. Inquiring about people's priorities is a step toward this consideration and requires that the plan of the process be considered just as important as the product or outcome.<sup>3</sup>

In pursuing this exploration, I have taken on the role of design researcher as opposed to design practitioner in order to take time to “focus on making the *right* things [rather than focusing on] making commercially successful things.”<sup>4</sup> My posture has been to respect both my position as the *outsider*, who is engaging a community that is not her own and my position as an *insider*, who has been invited to participate in this space on some level. I am also aware of the history of gender issues and how they influence the transmission of information and power. While these are important aspects to understand and research, I acknowledge how this paper cannot possibly address centuries of history related to work done in the “developing world.” Rather, I am intent on presenting a methodology that could adjust preconceived notions of how one should practice design outside one's own borders (both literally and figuratively).

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2. One Laptop Per Child, <http://laptop.org/en>.

3. Maslow's “Hierarchy of Needs” address a theory of human motivation, <http://psychclassics.yorku.ca/Maslow/motivation.htm>.

4. Forlizzi, Jodi et al. “Crafting a Place for Interaction Design Research in HCI,” *Design Issues* 24, no. 3 (Summer 2008): 26.

## CHAPTER ONE

*In searching out the truth, be ready for the unexpected,  
for it is difficult to find and puzzling when you find it.*

—Heraclitus



## INFLUENCES

In this research, I have sought to understand and include perspectives of design that embrace a social, cross-cultural and ethical process.

*Jorge Frascara*, a former professor of art and design at the University of Alberta, promotes the idea that visual communication design is “an important resource in addressing social problems.”<sup>5</sup> He suggests that the use of semiotics and rhetoric, which have historically been vital to the designer now become insufficient devices without the support of other disciplines like sociology and psychology. *User-Centred Graphic Design* addresses a designer’s social and ethical responsibilities and suggests that visual communication design “is an activity that has an impact on the public sphere, and as such requires a professional responsibility that overflows the technical. A technically excellent but ethically and socially irresponsible designer is a social, cultural and ecological hazard.”<sup>6</sup>

Frascara identifies that design can play two roles in its function and form; it can make life possible or it can make life better. His application of these ideas include traffic safety and literacy respectively. In my work, I have considered how to integrate a social and ethical approach that might address how design could contribute to making life possible or better for individuals in Rwanda. Rather than considering a product (a computer or a website) in isolation, I am seeking to understand the larger social and ethical implications that will affect how I apply design in this context.

*Transformation Design* is a methodology that considers how to incorporate the stakeholder into this process:

It builds on traditional design skills to address social and economic issues [...], uses the design process as a means to enable a wide range of disciplines and stakeholders to collaborate [and] develops solutions that are practical and desirable. It is an approach that places the individual at the heart of new solutions, and builds the capacity to innovate into organizations and institutions.<sup>7</sup>

This methodology challenges the typical inclinations of design firms, which work from, ...a largely commercial orientation, with a poor understanding of public service issues or the broader government policy context. Most designers and architects deliver tactical outcomes

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5. Frascara, Jorge, *User-Centred Graphic Design: Mass Communications and Social Change* (London: Taylor & Francis, 1997), 1.

6. Ibid., 32.

7. Burns, Colin et al, “Red Paper 02: Transformation Design.” <http://www.designcouncil.info/mt/RED/transformationdesign/>.

– communications, tools, products, environments. User-centred design, while prolific, is not universal.<sup>8</sup>

Like a traditional design firm, it can be tempting for a designer in a developing country to consider tactical solutions that may miss a full understanding of the broader context in which the design is situated. When presented with complexities, it is easy to see how one may wish to provide quick solutions to intense problems. In my work, I have considered how to be more patient in my interpretation of these complexities by inviting individuals from a village in Rwanda to participate in the design process. I have done so to reduce my false interpretations, as they influence how and what I design, while also encouraging people's participation in the transformation of their own community. By understanding their collective needs and desires, I can learn how to partner with them appropriately while also allowing their ideas to surface about how they could achieve the imagined and desirable outcomes.

*Gui Bonsiepe* provides a framework for interpreting how design functions in a given society. He acknowledges that there are differences between the centre (governments and authorities) and the periphery (those who submit to the centre) and addresses the role of design for democracy: "I am using a simple interpretation of the term "democracy" in the sense of participation, so that dominated citizens transform themselves into subjects opening a space for self-determination, and that means ensuring room for a project of one's own accord."<sup>9</sup> He further explains how a history of design could be categorized as domineering but presents an alternative that includes a more humanistic approach:

Design humanism is the exercise of design activities in order to interpret the needs of social groups, and to develop viable emancipative proposals in the form of material and semiotic artifacts. Why emancipative? Because humanism implies the reduction of domination. In the field of design, it also means to focus on the excluded, the discriminated, and economically less-favored groups (as they are called in economist jargon), which amounts to the majority of the population of this planet. I want to make it clear that I don't propagate a universalistic attitude according to the pattern of design for the world. Also, I don't believe that this claim should be interpreted as the expression of a naive idealism, supposedly out of touch with reality. On the contrary, each profession should face this uncomfortable question, not only the profession of designers. It would be an error to take this claim as the expression of a normative request of how a designer—exposed to the pressure of the market and the antinomies between reality and what could be reality—should act today. The intention is more modest, that is to foster a critical

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8. Burns, Colin et al, "Red Paper 02: Transformation Design." <http://www.designcouncil.info/mt/RED/transformationdesign/>.

9. Bonsiepe, Gui, "Design and Democracy", *Design Issues* 22, no. 2 (Spring 2006): 29.

consciousness when facing the enormous imbalance between the centers of power and the people submitted to these powers, because the imbalance is deeply undemocratic insofar as it negates participation. It treats human beings as mere instances in the process of objectivization (*Verdinglichung*) and commodification.<sup>10</sup>

Bonsiepe's weighted words echo my feelings about how design can be employed as a tool for democracy. My work has sought to break down the barriers of language and technology and create an alternate approach to understanding the needs of those I design for in a context that is not my own. By creating avenues for a mutual exchange of ideas, there is a reduction in the potential for rhetorical outcomes that could hold little or no meaning for those I am serving. In this case, a consideration of the social impacts of design becomes just as important as the physical or economical ones.

*IDEO*, a global design consultancy based in California, has expanded its repertoire to include designing for social impact. In this case, design is used, "as a tool to address such global social issues as poverty, health, water, economic empowerment, environmental activism, and the need for basic services. Design for social impact seeks to incite transformational change in underserved, underrepresented, and disadvantaged communities."<sup>11</sup> With support from the Rockefeller Foundation, IDEO created a toolkit to help an individual or organization hear the needs of farmers in India and create innovative solutions to meet these needs, while delivering an outcome that keeps financial sustainability in mind. Their approach starts with the people and their perspectives before any design solutions are suggested.<sup>12</sup> The toolkit is intended to "help design firms clarify their intentions, starting point, and action items as they build a portfolio of social impact projects."<sup>13</sup> Because of their previous engagement in India, this resource seemed to offer a gateway for me to explore my ideas about visual dialogue; therefore, I employed the kit's "Aspiration Cards" to see if this method would transfer appropriately in Rwanda.

*Elizabeth Sanders* also subscribes to a participatory, human-centered research process. Her firm, *MakeTools*,<sup>14</sup> employs a methodology of co-design (or co-creation) where collective creativity surfaces in the design process. By using a variety of tools, a designer can engage with a client or participant in order to work out some of the preliminary concepts that may be unclear for a design project to emerge. She also presents a view that reconsiders how design practice might shift away from the design of products to the design of process that will impact an individual's purpose.<sup>15</sup> My work has attempted to include

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10. Bonsiepe, Gui, "Design and Democracy", *Design Issues* 22, no. 2 (Spring 2006), 30.

11. IDEO, "Social Impact." <http://www.ideo.com/thinking/focus/social-impact/>

12. IDEO, The Human Centered Design Toolkit, <https://client.ideo.com/hcdtoolkit/>.

13. Ibid.

14. MakeTools, <http://maketools.com/>.

15. Sanders, E.B. -N. Sanders and Pieter Jan Stappers, "Co-creation and the New Landscapes of Design." *CoDesign International Journal of Co-Creation in Design and the Arts* 4, no.1 (March 2008): 7.

this methodology by inviting some women in Rwanda to participate in activities that bridge our cultural and lingual disparities in order to collectively discover ideas that could be applied to their community.

I have accessed these referenced ideas and methodologies in as much as they provide concepts to use in the field and a framework for including the needs and ideas of a client. When working in any setting, understanding the client or user is vital to the development of appropriate and sustainable solutions. When working with a community that may not be able to access or sustain a particular solution, the designer must consider how to adapt the design process to ensure the inclusion of ideas and insights of those the design is meant to serve. This is especially true when differences in language exist. The designer who finds herself working in this type of environment needs to have adaptive tools to allow for a dialogue that will lead to fuller understanding and ultimately appropriate solutions. What seems to be missing are the applied tools or methods that can help a designer navigate these unique complexities that emerge in this context.

In e-mail discussions with various practitioners I cite in this paper, I discovered that they had not attempted their methodology in a setting such as the one I experienced in Rwanda. Because of this, I wanted to explore how these ideas could be applied. Before addressing my approach to some adaptive tools, I will outline some terms and their associated definitions, as they relate to my research.

## **DEFINITIONS TO CONTEXTUALIZE**

Ironically, as I tried to step away from the difficulties of language, I found my research required an investigation of the meaning behind the words I was using to describe this work. Defining these terms became an important activity in order to understand the role of my design in this context.

### **1. Development**

Initially, I referenced my work as “design for development” because of how design has sought to assist with solutions where there is limited access to basic needs like clean water, health care, education, and housing. Examples of these solutions include the Life Straw (a personal mobile water purification tool) or the Jaipur Prosthesis (a low cost prosthetic that is flexible, waterproof and durable).<sup>16</sup> In working on my project, I noticed that the word *development* became problematic because of how it is often associated with a history of colonization. I found myself needing to defend why I was interested in directing my research toward a demographic that lives on less than one dollar per day; I wanted to do so without perpetuating a historical view or approach. Understanding how others were defining it

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16. Smith, Cynthia, *Design for the other 90%* (New York: Cooper Hewitt National Design Museum, 2007)

became an obvious part of my investigations.

The United Nations defines development as “the process of enlarging peoples’ choices to live long and healthy lives, to have access to knowledge, and to have access to income and assets: to enjoy a decent standard of living.”<sup>17</sup> This interpretation aligns well with the objectives that a designer would seek to address when pursuing a solution; therefore, the UN definition seems adequate. But Maggie Black suggests that the word has perhaps lost some merit due to its association with a less than reputable history:

Even at the purely semantic level, the term ‘development’ is difficult to replace. If you dislike it and its derivatives – ‘developing’, ‘developed’ – and try to avoid using them, nothing else quite works. To understand that development is an artificial construct and has earned much discredit does not help get rid of it. The concept has become ingrained in economic language and philanthropic endeavor. In default of some better terminological alternative, we will probably go on using the one we have. It would be helpful, however, if it was more used with greater care, and not assumed to be invariably beneficent and politically clean.<sup>18</sup>

Other words have emerged when researching disciplines connected to the development field; they reference individuals in these circumstances as “the other 90%,”<sup>19</sup> “the majority,”<sup>20</sup> “the periphery,”<sup>21</sup> “the bottom of the pyramid”<sup>22</sup>, or the underserved and underrepresented.<sup>23</sup> There is little agreement as to which word is most suitable. My goal in using any of these words is to do so with less frequency and “greater care,” as Black suggests. I will therefore use them interchangeably, not to avoid a deeper discussion on this topic but in order to focus my research away from the complications of semantics. The focus of my work has been to consider how to apply design appropriately in a development context. Gui Bonsiepe contributes to this discussion from his experience of working as a designer in Latin America:

There seems to exist a hidden romantic notion of the periphery: that it should maintain its status of pristine purity that would be contaminated by any outside contact. It might be

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17. UNDP Development Report 1990, <http://hdr.undp.org/en/reports/global/hdr1990/> (accessed on February 26, 2009).

18. Black, Maggie, *The No-Nonsense Guide to International Development* (Oxford: New Internationalist, 2007), 137.

19. Smith, Cynthia, *Design for the other 90%* (New York: Cooper Hewitt National Design Museum, 2007).

20. Industrial Designers Society of America, “Design for the Majority,” <http://216.169.150.18/webmodules/articles/anmviewer.asp?a=2236>.

21. The “periphery” often refers to the economic status of individuals in a country. These individuals are likely to make less than two dollars per day and play a marginal role in the world economy. Gui Bonsiepe was a designer who addressed the potential for improvements in design related to individuals who fit into this category.

22. Prahalad, CK, *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits* (Philadelphia: Wharton School Publishing, 2004).

23. IDEO, Social Impact, <http://www.ideo.com/thinking/focus/social-impact/>.

advisable to distinguish between influence and influence. I don't see anything negative in the endeavor to contribute to a project of social emancipation. I did not come as a missionary to Latin America. What I did was to provide an operational base for concrete professional design action.<sup>24</sup>

## 2. Governance

Like Bonsiepe, I am interested in how design can contribute to social emancipation. Because of this, my research has also considered the idea of *good governance* as it relates to decision-making processes in the creation of a civil society. "Governance" refers to how a government functions, who is involved in the process of policy making and what effects these activities will have on the public. The Canadian International Development Agency (CIDA), when determining where to focus aid, uses these concepts as a means of evaluation: participation of citizens in decision making and their understanding of the rule of law, accountability of the government to the people it serves and its transparency plus an equity among people in this process.<sup>25</sup> These principles are inherently idealistic but offer a reasonable gauge for interpreting the goals of a civil society. I have focused on these notions as they pertain to the *democratization of knowledge*. To make information (knowledge, policy, infrastructure, etc.) accessible and transparent is an act of democracy. By allowing individuals access to this knowledge and perhaps even the ability to participate in the creation of it, a democratic process is achieved. Beat Schneider references these ideas as ones that are important for the design community to remember when working in our current culture that is attempting to make sense of complex information: "Visual design plays a vital role in the democratization of knowledge. Designers are therefore urgently called upon to help make information networks transparent."<sup>26</sup> The eSeva story offers an example and highlights a shift toward transparent systems for the benefit of the citizen.

The Chief Minister of the state of Andhra Pradesh, India wanted to transform his state into a model one so he pushed for something that would impact the way a citizen interacted with the government. All government processes that required action on the part of a citizen (land registration or electrical payments, for example) were changed into digital form. This shift to making all transactions straightforward and streamlined reduced the potential for corruption in these processes.<sup>27</sup>

The eSeva outcome had the benefit of technology and shared language to pursue its democratic

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24. Fathers, James, "Peripheral Vision: An Interview with Gui Bonsiepe Charting a Lifetime of Commitment to Design Empowerment" *Design Issues* 19, no. 4 (Autumn 2003), 47.

25. Association of Universities and Colleges of Canada. "Handbook for Interns, Students For Development," [http://www.aucc.ca/programs/intprograms/sfd/sfd\\_2008\\_e.html](http://www.aucc.ca/programs/intprograms/sfd/sfd_2008_e.html) (accessed June 10, 2008).

26. Schneider, Beat, "Design as Practice, Science, and Research," *Design Research Now: Essays and Selected Projects*, ed. Ralk, Michel (Basel: Birkhauser, 2007), 209.

27. Prahalad, C.K., *Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits* (Upper Saddle River: Wharton Publishing, 2005), 89-97.

goals. In light of these ideas and examples about democracy and knowledge, I began to pursue a deeper investigation of how the visual could be used to explore levels of understanding (and therefore provide access to knowledge) when text becomes problematic and technology is not available. While I didn't set out to address government systems, I can see how there is potential for these ideas to be transferable.

### 3. Visual

Because I employed the use of visuals as a conduit for language, it becomes important to distinguish what “*visual*” means when referenced from a design perspective. Guy Julier suggests that visual culture, as an academic discipline, acts as a “way of looking” that can be limiting to design: “Design, therefore, is more than just the creation of visual artifacts to be used or ‘read.’ It is also about the structuring of systems of encounter with the visual and material world.”<sup>28</sup> When I refer to the visual in my paper, I am considering it in the realm of design, and more specifically as part of a design process and “context-informed practice,” which refers to how location can influence design.<sup>29</sup> This becomes an important distinction as I am not considering the participants in Rwanda as the visual objects of this research but rather considering how their participation with visuals could lead to social innovation.

### 4. Ambiguity

Ambiguity can often be perceived as a deficit or problem, especially for a designer who is aiming to make information systems understandable. Gaver, Beaver and Benford suggest that it should be perceived as a positive resource for design because it allows “people to interpret situations for themselves [and] encourages them to start grappling conceptually with systems and their contexts.”<sup>30</sup> Because of the obvious gaps between language and technology, I was already existing within an ambiguous framework; one that included the ambiguity of information, context and relationship.<sup>31</sup> To both navigate and embrace this place, I chose to allow the ambiguity of the process to inform new levels of inquiry and understanding that may be overlooked in this complex system. Otto Scharmer (MIT) suggests that this type of posture can provide the means for a more generative system; one in which a designer can more effectively approach “the most pressing local, regional, and global challenges.”<sup>32</sup>

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28. Julier, Guy, “From Visual Culture to Design Culture.” *Design Issues* 22, no. 1 (Winter 2006), 67.

29. Julier, Guy, “From Visual Culture to Design Culture.” *Design Issues* 22, no. 1 (Winter 2006), 70.

30. Gaver, William, Beaver, Jake & Benford, Steve, “Ambiguity as a Resource for Design.” *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Fort Lauderdale, Florida, April 5-10, 2003, 233.

31. Gaver, William, Beaver, Jake & Benford, Steve, “Ambiguity as a Resource for Design.” *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Fort Lauderdale, Florida, April 5-10, 2003, 236-237.

32. Scharmer, C. Otto. *Theory U: Leading from the Future as it Emerges, The Social Technology of Presencing* (San Francisco: Berrett Koehler, 2009), 361.

## CHAPTER TWO

*[E]very human being, no matter how “ignorant” or submerged in the “culture of silence” he or she may be, is capable of looking critically at the world in a dialogical encounter with others. Provided the proper tools for such encounter, the individual can gradually perceive personal and societal reality as well as the contradictions in it, become conscious of his or her own perception of that reality, and deal critically with it.*

Paulo Freire

*I learned then that listening isn’t just about patience. [When] you’ve lived on charity your whole life long, it’s really hard to say what you mean. And mostly because people never really ask you and when they do, you don’t think they really want to know the truth. [Listening] is not only about waiting but it’s also learning how to better ask questions.*

Jacqueline Novogratz



## RESEARCH PROJECT

### PHASE ONE: Rwanda

From June to September 2008, I lived and worked as a designer in Kibungo and Kigali, Rwanda as part of an educational program that allows students to work together with partners in the developing world to promote good governance.<sup>33</sup> The particular focus of my internship was to design a website for a cooperative of weavers (known as COVAGA)<sup>34</sup> in the Bugesera District of Rwanda who were working with a problematic plant known as the water hyacinth (*Eichhoria crassipes*). This plant has wreaked havoc on the lakes and rivers of East Africa to the point that it has covered waterways, thereby causing oxygen depletion, limitations to boat access and a reduction in fish hauls.<sup>35</sup> These weavers (eighty-two in total, and predominantly female) have reduced the negative impacts in their region by extracting the plant and weaving artifacts, as a form of environmental protection and economic development.

At the start of the project, the need for a logo mark to uniquely identify this weaving cooperative became apparent since there are many other groups engaged in the weaving industry. The women needed to set themselves apart from other cooperatives when it came to selling their products. My desire was to see the women be able to participate in the development of the logo in some way to avoid a typical design practice that had me dominating this process. Drawing on my experiences from a workshop with Elizabeth Sanders (MakeTools) in the fall of 2007, I employed a co-creation methodology where a designer invites a client to help in the creation of the work. Ten women were asked to participate in this activity and sketch ideas for a logo on a three-by-five card<sup>36</sup> (Figure 1.1). Some images reference items that were familiar to them (baskets, vases, or mats) while others show the water hyacinth to be a more relevant icon. A few applied some ideas that had been presented as potential options for new products (chairs or tables) (Figure 1.2).

Since the use of the water hyacinth as a weaving fiber distinguishes this cooperative from others, we agreed on this direction for their logo (with the help of gestures and translations). Over a two week period, I took their drawings and began to create various sketches that might be reflective of the ideas produced during the workshop. We then scheduled a trip to the village to discuss the

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33. Association of Universities and Colleges, "Students For Development Program," [http://www.aucc.ca/programs/intprograms/sfd/sfd\\_e.html](http://www.aucc.ca/programs/intprograms/sfd/sfd_e.html). This program was funded by the Canadian International Development Agency.

34. COVAGA is an acronym for the French translation of Cooperative of Weavers of Gashora.

35. Aquaplant, Texas A&M Extension Service, Department of Wildlife and Fisheries Sciences. [http://aquaplant.tamu.edu/database/floating\\_plants/water\\_hyacinth.htm](http://aquaplant.tamu.edu/database/floating_plants/water_hyacinth.htm).

36. Stookey, Mitchell. "Co-Design Gashora," <http://vimeo.com/1901556>. While in Rwanda, I had the privilege to work alongside a student filmmaker who documented my co-design session with the women.



Figure 1.1: Co-design session



Figure 1.2: Sample sketches

designs. The logo that was finally created (Figure 1.4)<sup>37</sup> was based on one of the sketches that emerged during this drawing session (Figure 1.3). A gesture of two-thumbs up signified that this was acceptable, which meant I could begin to develop the website.

The website was originally requested by the partner organization as a tool to increase awareness of both the weaver's work and the environmental problem imposed by the hyacinth.<sup>38</sup> While

37. Figure 1.4 shows the English version of the logo. I also crafted one in Kinyarwanda for use in Rwandan markets.

38. Conversations about what language the site should be designed in emerged over the course of the project. It was decided that it should be created in English because of the amount of time and cost that would be required to translate it into Kinyarwanda. The intent was to make the information accessible to a broad range of people in other countries.

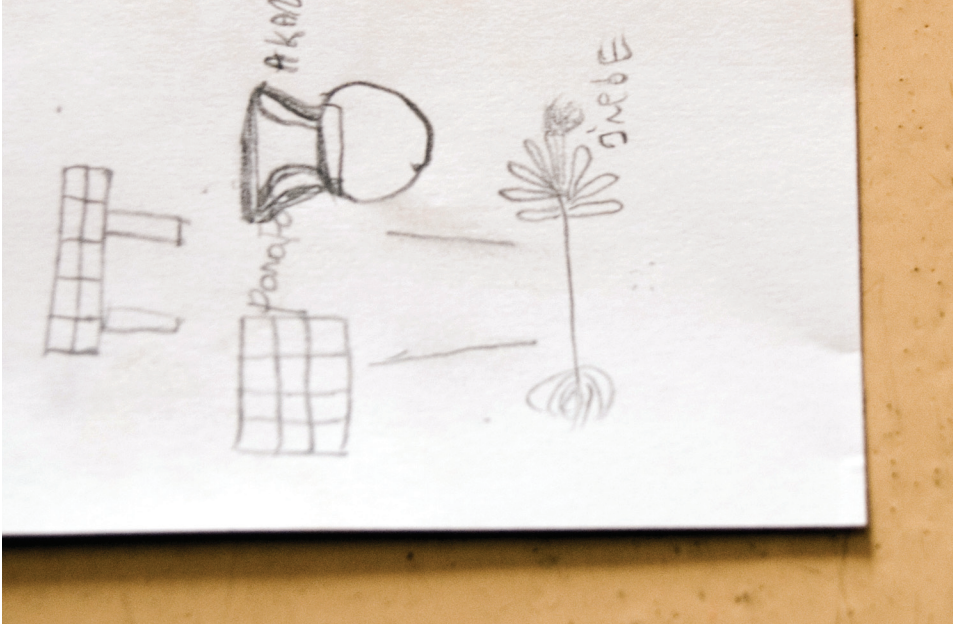


Figure 1.3: Sketch used in design



Figure 1.4: Final Logo

these ideas are important factors to showcase, as a North American designer, I was concerned about introducing technological solutions to a community that possessed no computers or internet access. Since the weavers (who would normally represent my “client” in a typical design scenario) did not craft this brief (due to the lack of dialogue that could normally assess a client’s priorities), those outside of this community assigned a value to the type of design needed. My original intention was to create a site that the women could manage themselves. Realizing that this was not an option, I was challenged as to how my skills were going to contribute to a sustainable tool for this community.

As I worked alongside these women, I could see that they needed to make more money, increase their skills and broaden their business acumen so as to strengthen their weaving practice (as their work in the field guaranteed more consistent income). As I learned of these issues, I began to question whether the website should have been the priority. How could I learn what these women really needed when we didn't speak the same language?<sup>39</sup> With their level of financial poverty, any form of help is favorably received. But can it be valuable if it isn't appropriate? And how could I know more as a designer when I was relying on my own limited cognitive understanding of their reality?<sup>40</sup> These challenges led me to consider alternative ways to approach design in this context.

In the end, despite reservations, I made the website<sup>41</sup> as per the requirements of the grant. But I wanted to resolve the tension between my interpretations of their perceived needs and their actual and perhaps undetected needs. How could communication design be helpful and relevant in this environment? In essence, I became determined to move past the rhetoric and limitations of the website and engage more closely with the women and their perspectives. Ideas that surfaced in this process included a need to understand more about designing *in* and *for* an oral-based culture (where design in a formalized sense is less defined) and to appreciate the concept of designing *with* rather than *for* one's client. These ideas presented a situation that required adaptations to my typical practice. My background anticipated a creative brief proposed by the client with attached time lines and budget. As this was not a part of my process in Rwanda, it begged a new way of understanding the client and more specifically how to involve him or her in the development of a relevant solution.

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39. In my attempt to pursue an understanding of Kinyarwanda, I created an analog tool to act as a form of learning and playful expression during my time in Rwanda. A small sketchbook allowed me to connect with those I was working with while also alerting me to the intricacies of language and communication. The time I spent drawing along with the drawings created by the women marked the beginning of my fascination with the visual as a means of understanding the textual. The images on the following page are a few selections from this book. Itorerero means "gathering place" and Amazi means "water."

40. Kahane, Adam. *Solving Tough Problems: An Open Way of Talking, Listening and Creating New Realities*. (San Francisco: Berrett Koehler, 2007), 108-109.

41. COVAGA website, <http://rwanda.ecuad.ca/about.html>.





Figure 2.1 and 2.2: To appreciate our language differences, I used a sketchbook to broaden my understanding of their culture.



## PHASE TWO: Vancouver

If I thought designing within the context of Rwanda posed challenges, attempting to continue outside of that environment presented other levels of tension and inquiry. I faced challenges by being positioned as a *design interloper*: one who involves herself in the affairs of others without permission. Because I was attempting to continue this work from a distance, I was challenged to consider if my ethnographic research approach would be valid. Since this research would require a team with varied skills and languages, who were coming from different demographics and locations, I wondered if I would witness a realized outcome. Convinced that there was a need to investigate these ideas further, I set out to gain an understanding of the history and field of “development work” in order to consider how design could contribute to this field more appropriately. While I did not become an authority on this topic, I did notice common themes emerging.

### Research into development communications

Development communications began with the idea that a system could exist to “transform individuals and societies from ‘traditional’ to ‘modern.’”<sup>42</sup> This definition has somewhat shifted away from its modernist ideal but what remains is the idea of “informing the population, [...] introducing the advantages of [the] projects, and recommending that they be supported.”<sup>43</sup> While I am not focusing on development communications as a whole, part of its history becomes relevant because of how it has created a pattern of response from those the tools are intended to assist. This approach generates ongoing (and sometimes costly) projects with outcomes that often overlook the priorities of the village. When assessing the amount of aid money that has been spent in attempts to eradicate poverty in developing nations, William Easterly, a former senior economist for the World Bank provides a convincing commentary: “We have invested a staggering \$568 billion in development aid in Africa over the past forty-two years, and have very little to show for it.”<sup>44</sup> With statistics like this, I became curious as to how a design process could increase the quality of services, programs and products being generated from this level of spending if said process involved the people who would have to live with the outcomes.

The Millennium Development Goals,<sup>45</sup> which aim to transform the lives of those living in poverty by 2015 (by addressing issues of hunger, education, infant mortality, gender equity, environmental sustainability and AIDS) represent an example of a communication strategy. While helpful as a

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42. Food and Agriculture Organization of the United Nations, “Communication for Development Roundtable Report: Focus on Sustainable Development,” <http://www.fao.org/>.

43. Ibid., “Communication For Development Roundtable Report,” <http://www.fao.org/docrep/008/y5983e/y5983e01.htm>.

44. Polak, Paul, *Out of Poverty: What Works When Traditional Approaches Fail*. (San Francisco: Berrett-Koehler 2008), 30.

45. United Nations Development Program, “Millennium Development Goals,” <http://www.undp.org/mdg/>.

measuring tool, all reports suggest that the goals outlined are not going to be achieved. At the midway point in 2006, evaluations indicated that they were in fact faltering.<sup>46</sup> My experience in Rwanda highlighted how often these goals were referenced but were rarely demonstrated as being understood by those who were meant to benefit from them (especially in the rural village). The intention, while noble and valid, does not seem to include a communication tool to present the goals as both relevant and achievable for the intended beneficiaries.

The concept of participatory activity is already present in development communication strategies.<sup>47</sup> But as with many initiatives, they have the potential to be pushed further:

If [communication needs assessments] are not envisaged in the programme design stage, it is difficult to allocate time and resources to these exercises. The impact of communication can be jeopardized by not having accurate information about the needs of the counterparts and by the reliability of available tools. Experience in monitoring and evaluating the impact of communication initiatives is comparatively weak, leading to the re-use of formats and campaigns regardless of their effectiveness in improving conditions of marginalized groups.<sup>48</sup>

Because of the need for rapid solutions to intense problems, an understanding of how a given solution might impact the larger system can be a complex inquiry. If this inquiry is assessed too quickly, a designed outcome may have the potential to be irrelevant or unsuccessful. An example of this type of intervention arose when a village-based internet kiosk was developed in an attempt to open up communication channels in India:

I saw that they had focused on the technology. Battery backup, heat tolerance and dust resistant casing and all the other front end and back end systems that should make the system work. But it failed. Why? The focus seemed to be on making a robust and low cost solution but I did not hear what the village folks were supposed to do with the whole offering and it seems to me that this may have been the key to the failure of the whole effort: focus on technology and economy and missing the user and their particular condition in the location.<sup>49</sup>

This example highlights how immediate results can be delivered because of the expertise available but

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46. Polak, Paul, *Out of Poverty: What Works When Traditional Approaches Fail*. (San Francisco: Berrett-Koehler 2008), 31.

47. The World Bank, "What is Development Communication?" <http://go.worldbank.org/5CHGCEWM70> (accessed November 22, 2008).

48. Pagliani, Paola, "The MDGs as a Communication Tool for Development," The United Nations Development Programme Oslo Governance Centre: The Democratic Governance Fellowship Programme, (November 2007), 15. <http://europeandcis.undp.org/home/show/74FB2A31-F203-1EE9-B07D649AFDCA63AA> (accessed on March 2, 2009).

49. Ranjan, MP, "World Usability Day at Bangalore: Lecture on Social Equity and Design," Design For India Blog, (November 7, 2007), <http://design-for-india.blogspot.com/2007/11/world-usability-day-at-bangalore.html> (accessed on May 7, 2009).

represents a project that cannot be sustained by the community. This suggests that expertise can be an impediment<sup>50</sup> when it overlooks valuable indigenous knowledge and the culturally relevant creativity inherent within the community.

During my research, I initiated a brief exchange with Professor Ranjan from the National Institute of Design.<sup>51</sup> I asked him about his methodology of “village intervention with design for sustainable living.”<sup>52</sup> This approach seeks to incubate the ideas within the village in order to progress forward in any design solution. It also suggests that design plays a role in viewing an entire system rather than just its individual parts, which helps reduce misguided design interventions.

Paul Polak, author of *Out of Poverty: What Works When Traditional Approaches Fail*, draws on his twenty-five years of involvement in various developing nations to assess what is needed for development programs to work. Most notably he suggests that, “the best way to satisfy [one’s] curiosity about poverty is to have long conversations with poor people in the places where they live and work and dream, and to listen to what they have to say.”<sup>53</sup> His principles of design for the underserved provide a sensible gauge for a designer who is situating herself among this demographic. He suggests that the poor customer should rule the design process and that one needs to have “good conversations, with your eyes open, with at least twenty-five poor people before you start designing.”<sup>54</sup>

With these things in mind, I set out to employ a methodology that could be used in a village in Rwanda to ask questions of the women so as to collect their ideas, innovations and insights. By introducing a design methodology into a development communications context, I wanted to create a tool that would increase the opportunity for appropriate and effective design outcomes. The intention was to create a means for dialogue so that ideas for appropriate solutions might emerge from the village. I was not aiming to solve one specific problem but instead create a starting point to understand the range of issues within a particular community that would be included in the initial stages of a design process and hopefully shape future projects. I knew this information was complex but I wanted to move from a place of, as Goethe suggests, “interrogation to receptivity” by being open to the parts of a whole that I cannot see or interpret.<sup>55</sup>

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50. Kahane, Adam. *Solving Tough Problems: An Open Way of Talking, Listening and Creating New Realities*. (San Francisco: Berrett-Koehler, 2007), 53.

51. Professor Ranjan is a faculty member and the Head for the Centre for Bamboo Initiatives at the National Institute of Design in India.

52. This exchange is hosted on his design blog: <http://design-for-india.blogspot.com/2008/04/poverty-and-design-explored-context.html>.

53. Polak, Paul, *Out of Poverty: What Works When Traditional Approaches Fail*. (San Francisco: Berrett-Koehler 2008), 27.

54. Ibid., 75.

55. Wheatley, Margaret. “Change: The Capacity of Life.” in *Leadership and the New Science: Discovering Order in a Chaotic World*, 137-155.



## METHODOLOGY

### Probes for Empathy

In *Design Research Quarterly*, Elizabeth Sanders' topographical diagram<sup>56</sup> provides an overview of the landscape of design research (with its ranges from expert to participatory and research-led to design-led quadrants). The probe, as a methodology, fits into the realm of critical design that aims to ask questions as opposed to providing answers.<sup>57</sup> The probe offers insight and inspiration that could then lead a designer to a more participatory approach that includes *generative tools*: "Generative toolkits are created and developed based on a solid understanding of the context of use that has been ethnographically informed."<sup>58</sup> By inviting the underserved to participate in a probe activity, there is an opportunity for "shaking the preconceptions"<sup>59</sup> that are often associated with designing *for* the developing world.

Cultural probes (as originally introduced by William Gaver of Goldsmiths College) present a viable way to interact with a group of individuals who do not share the same language or demographic in order to gauge perceptions. A probe can include all forms of creative activities – from a single-use camera to a journal or collage. The idea behind the activity is to address the felt needs of an individual or group when language may not be available. Since I am seeking to investigate tacit knowledge, or "the knowledge that people can act upon, but cannot readily express in words,"<sup>60</sup> the probe becomes a less clinical approach to help embrace the ambiguities of this knowledge. In an article written for *Interactions*, Gaver comments about his own use of probes in research,

[They] were part of a strategy of pursuing experimental design in a responsive way. They address a common dilemma in developing projects for unfamiliar groups. Understanding the local cultures was necessary so that our designs wouldn't seem irrelevant or arrogant, but we didn't want the groups to constrain our designs unduly by focusing on needs or desires they already understood. We wanted to lead a discussion with the groups toward unexpected ideas, but we didn't want to dominate it.<sup>61</sup>

Gaver's use of the probe was intended to offer design inspiration. Alternatively, empathy probes

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56. Sanders, E.B.-N. "Design Research in 2006," *Design Research Quarterly* 1, no. 1 (September 2006): 4, <http://www.drsg.org/>.

57. Dunne, A. and Raby, F., *Design Noir: The Secret Life of Electronic Objects*, (London : August; Basel, Switzerland: Birkhäuser, 2001), 58.

58. Sanders, E.B.-N. "Design Research in 2006," *Design Research Quarterly* 1, no.1 (September 2006): 6, <http://www.drsg.org/> (accessed October 15, 2008).

59. Gaver, W., Boucher, A., Pennington, S., and Walker, B., "Cultural Probes and the Value of Uncertainty," *Interactions* 11, no.5 (September - October 2004): 53-56.

60. Sleeswijk Visser, F., Stappers, P.V., & Van Der Lugt, R., *Contextmapping: Experiences From Practice CoDesign: International Journal of Co-Creation in Design and the Arts* 1, no.2 (April 2005): 119-149.

61. Gaver, William, Anthony Dunne, and Elena Pacenti. "Cultural Probes." *Interactions* 6, no. 1 (January-February 1999): 22.

focus on “using the probes kit to allow the participants [to] collect data about their physical and social context, lifestyle, attitudes, and experiences.”<sup>62</sup> In this case, the outcome creates a means for dialogue between a designer and the participants before design inspiration is addressed. In light of these two views of the probe, I chose to adapt them in my process by exploring their benefits for gaining empathy while also allowing for the possibility of design inspiration to emerge.

## THE CONTENTS

The exercises included in the kit were modeled after ideas I accessed from Gaver’s probes. My aim in designing the activities was to remove some of the clinical approaches to research that can often be exercised when assessing situations in development contexts. I wanted to consider how the creative spirit within each person could be expressed while also providing new insights for me as a designer.

Because I had researched IDEO’s Human-Centered Design Toolkit during the course of my investigations, I sourced some of their images (Figures 3.4, 3.6 and 3.7 and Appendix C) to act as a starting point for my visual explorations. The kit is positioned to help a designer understand the aspirations of a community and because I had seen evidence of their use in other case studies,<sup>63</sup> I wanted to explore their transferability to my investigations. IDEO’s kit hosts sixty images and in deciding which to include, I noticed that some appeared to be too westernized in their depictions.<sup>64</sup> I aimed to select ones that I perceived were relevant to the women based on my experience in the summer. In the end, I chose twenty-two of the IDEO cards and sourced three additional images from elsewhere as they seemed to provide visual responses to first hand observations. These additional images were of a water bottle, a OLPC laptop and a family standing by a water well.<sup>65</sup>

I included twenty-five images in total because I did not want to overwhelm the women with too many choices. For this activity, I included a translated explanation that asked two questions of each participant when viewing these cards, “What do you *need* everyday in your community” and “What do you *want or wish you had* for your community in the future?” Six red and green stickers were provided to utilize colour as a means of communicating. The red sticker would identify the needs while the green would identify the wants. For each category, I asked the participant to write a number one on the most

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62. Mattelmäki, Tuuli & Battarbee, Katja. “Empathy Probes,” in the proceedings of *PDC 2002: 7th Biennial Participatory Design Conference, Participation and Design: Inquiring into the Politics, Contexts and Practices of Collaborative Design Work*. June 23-25, 2002, Malmö, Sweden. <http://chromaticgray.com/katbat/index.html> (accessed on May 8, 2009).

63. IDEO, Human Centered Design Toolkit, <http://www.ideo.com/work/item/design-for-social-impact-workbook-and-toolkit/>.

64. I consulted with some designers from other countries to get input on this before compiling my images.

65. A water bottle was sourced from here: [http://commons.wikimedia.org/wiki/File:Brand\\_Cielo\\_Water\\_Bottle\\_2.5\\_Litre.jpg](http://commons.wikimedia.org/wiki/File:Brand_Cielo_Water_Bottle_2.5_Litre.jpg), a well was sourced from here: <http://www.lifegivingwater.org/images/DSCF0269.JPG> and an image of computers was sourced from here: <http://wiki.laptop.org/images/e/e2/PNG-Gaire-5.jpg>.

important need and most important want. I used the coloured dots as a result of learning about *The Barefoot College*.<sup>66</sup> a training centre that teaches rural women how to be solar power engineers in their remote villages. Because they speak different languages or have low literacy, colour is used as a means to learn the technology. I wanted to explore how this concept might translate into a communication tool in Rwanda.

I redesigned the packaging for a non-flash, single-use camera so I could ask questions about the community in which the weavers lived, using visuals as a means to communicate (Figure 4.1). I chose to use cameras since I had shared mine with the women during the summer but also because they seemed an obvious method for giving someone a tool to communicate with me when we didn't have a shared language. The list of images on the camera asked each participant to take a picture as she interpreted these statements:

This is a picture of me  
This is in my pocket or purse  
This is what I wear on my feet  
This is where I live  
This is where I work  
This is where I sleep  
This is what I see when I step outside  
This is where I shop  
This is what I bought for 500 francs<sup>67</sup>  
This is my favorite drink  
This is my favorite food  
I use this everyday  
I spend most of my time here  
I wish I had this  
This is something I need  
This is someone I love  
This is where I relax  
I spend time with my friends here  
This is someone I respect

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66. The Barefoot College, [http://www.barefootcollege.org/prog\\_solar.htm](http://www.barefootcollege.org/prog_solar.htm).

67. This image asked the participant to take a picture of something she bought with 500 francs (equivalent to one US dollar). To respect the time of the participants and to discover what the average daily income might buy, I provided this amount in an envelope for each kit (Figure 3.2).

This is beautiful to me  
 This is something I worry about  
 This is something I am proud of  
 This is something I want to improve  
 You can only find this in my country



Figure 3.1: Repackaged cameras. The bottom white section offers the women a larger type size.



Figure 3.2: Each kit came with 500 francs (equal to \$1 US). One of the pictures is meant to reflect what was bought with this amount.



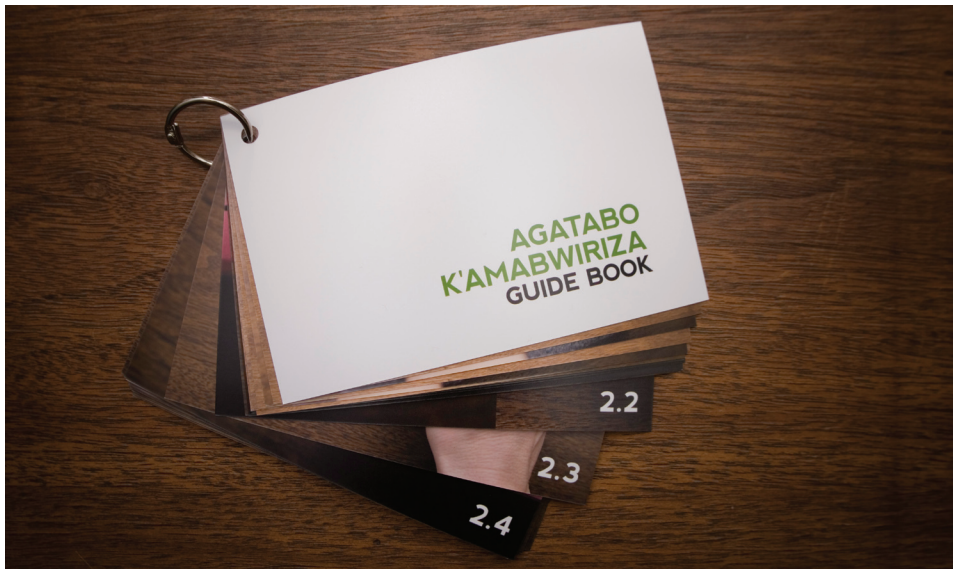


Figure 3.3: A note pad with pencil crayons (and pencil) was included in each kit.



Figure 3.4: A set of 25 images reflecting various aspirations.

Instead of exchanging verbal or textual responses, the pictures became the method for communicating. This activity (among others) had to be translated from English to Kinyarwanda (national language) so that instructions were clear. I sought to reduce the amount of text used but in order to ensure adequate instruction, I could not avoid it completely. As I created simple statements of information, one of my translators reminded me that some of the women might not be able to read. Literacy was something I had considered in my research but confirming culturally applicable icons or images would likely require further investigations beyond the scope of this preliminary research. Consequently, I wrote a letter to the women offering them the freedom to talk to each other about what



Figures 3.5, 3.6 & 3.7: The visual guidebook and samples from the aspiration card activity. The participant is meant to place a green or red sticker on the images that are the most important to her and place a number one on the most important in each category.



each phrase meant. A visual guidebook (Figure 3.5) was also designed to assist in explaining how the kits worked and hopefully bridge any further gaps should the letter lack clarity in its textual form.

The last exercise asks the participant to draw images of things she perceives as improvements to her community (Figure 3.3). This activity was included to allow for ideas or thoughts to emerge that I might not be aware of or have considered in the other exercises. It also allows for some free form expression similar to their previous experience of drawing on the three-by-five cards. My hope was that this activity would provide a reminder of how drawings can be used to create a dialogue (as done with the logo). I included a set of pencil crayons, one pencil and a sharpener that the participants could keep upon completion of the project.

## THE FIELD BAG

When I considered how the probes would be used, I recalled that these women didn't necessarily have a place where they could sit and contemplate the questions I was asking of them. There likely wouldn't be a desk in their house that would allow them to sit down and draw on the supplied paper. And if there was, they didn't have copious amounts of time to work on the activities, considering they had farms to tend and children to feed.<sup>68</sup> This led me to create a "field bag" that would enable a participant to take the activities with them as they went about their day. As a communication designer, working with materials of this nature was a step into uncharted territory but seemingly required if the probes were to be useful and effective. I began by paper prototyping my ideas to consider how the bag would need to function (Figures 4.1 and 4.2).

The term "appropriate technology" suggests that one has considered the environmental, ethical, cultural, social and economical impacts when designing something.<sup>69</sup> In making these field bags, I wanted to keep these impacts in mind. I also wanted to allow for the opportunity to replicate the concept in Rwanda to avoid having them be presented as something that defined one's social status by virtue of being supplied by a foreigner. Since this field bag was going to be used by women during their daily routines, I took into consideration how it could be transformed into a desk or table. I also needed to allow for the inclusion of common rituals (carrying children or farming tools) when designing how it would be carried. Because of these factors, I designed it to be worn around the waist while including a hard surface to write on.

I researched locally available materials that could be applied to my prototyped concept. The material I chose comes from a 60% wool blanket, that looks and feels like felt and can be sourced on the continent. One blanket produced enough fabric for twelve bags. Each was sewn with one side remaining open to hold the contents (a button enclosure was added inside) while the other side had a stiff cardboard inserted to act as a hard surface (or a "field desk") for the participant who lacked such resources (see Figures 4.3 - 4.7). The total cost per bag came to approximately \$2.50 CDN (not including the activities).

The creation of this bag was both unexpected and delightful. By having to consider more than just the contents, I was challenged to move outside of my comfort zone as a designer and consider the layers of the design process I may not normally have had to encounter. Even as I gave careful attention

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68. Leslie Speer (IDSA Design for the Majority) communicated with me about this notion as a result of showing her my initial paper prototypes.

69. Schumacher, E.F., *Small is Beautiful: Economics As If People Mattered*. (New York: Harper & Row, 1973), 167.



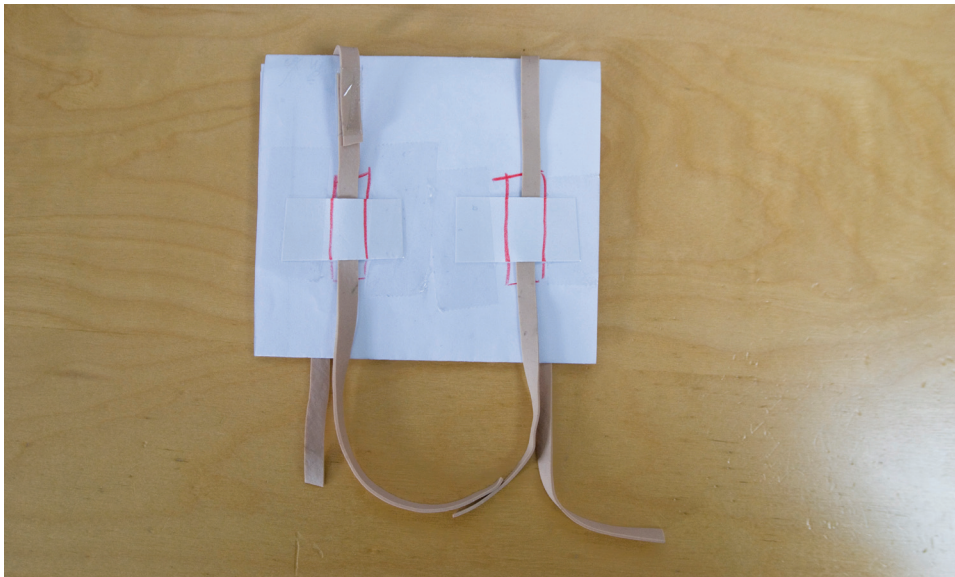
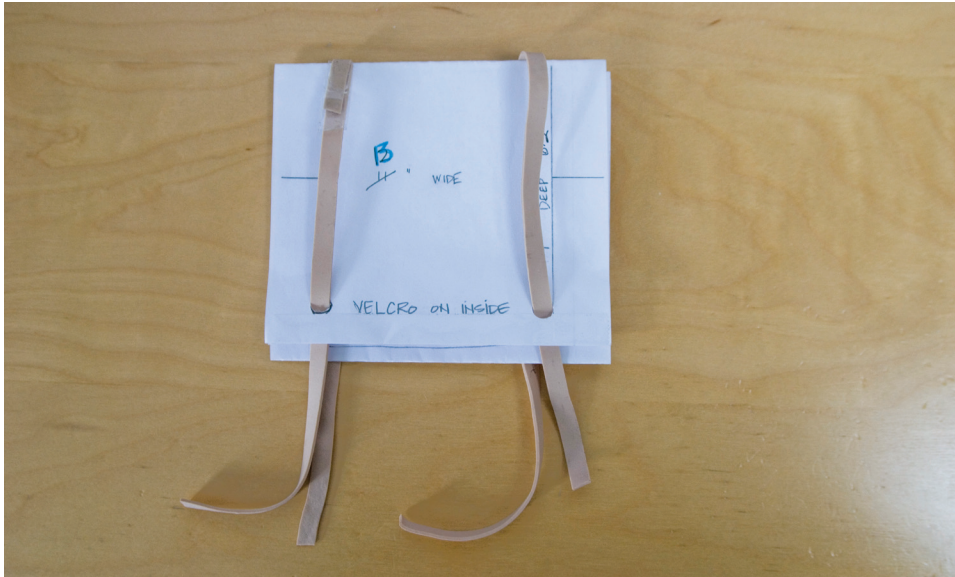


Figure 4.1 and 4.2: Example of one paper prototype (front and back).

to the form and structure of the bag, I still could not know how they would actually be used. Would they be worn around the waist as intended? Would they carry them as a purse? Would they carry them like I had seen backpacks used in Rwanda – on their heads? Would the hard surface be helpful? Field testing would allow me to ask further questions about this.





Figures 4.3, 4.4 and 4.5: Field Bag Front, Inside and Back.



Figure 4.6: Field Bag worn around the waist.



Figure 4.7: Field Bag being used as a desk. Dimensions: 10.5 x 7 x 2 inches.



## FIELD TESTING

Funding limitations prohibited my physical presence in Rwanda and therefore removed me from the experience of administering the kits in person.<sup>70</sup> At first, this reality was discouraging. If funding had been available to return to the village, I would have pursued this option as I see the value and importance of being present to the community one is working with. I had a few e-mail exchanges with designers working in rural communities in India who affirmed this value. Lakshmi Murthy, a graduate of India's National Institute of Design viewed my research blog<sup>71</sup> and provided this feedback to the work begun in Rwanda:

What you have done is good. You are with the community; you are working from the ground. The "field" is always the teacher. That is the only "Mantra". "We" will always [be] the outsider. That is also the truth. As a communicator working with communities, you will be in positions where you will forget what you came to do and get entangled with other communities issues! So, my tip for you is keep attaching and detaching. This way your contributions will always be practical and simple and real. Keep your ear to the ground and look for areas where no one wants to tread. That will be your biggest contribution.<sup>72</sup>

In evaluating this perceived setback, I began to consider how *not* being physically present could hold potential value as a research methodology - perhaps this could represent the "detaching" that Lakshmi references. In *Pedagogy of the Oppressed*, Donald Macedo introduces the reader to his own struggle to understand the "cultural schizophrenia" he experiences when he is either "present and yet not visible" or "visible and yet not present"<sup>73</sup> to a cultural dichotomy. Macedo's thoughts about these dichotomies can be applied to my feelings about working with the weavers in Rwanda. While I have the benefit of knowing these women, this connection does not remove the fact that I must dance between two worlds: a world that views me as part of a history of colonization and one that also wants to advance forward to possess some of the freedoms I experience. Because I spent time with the weavers in Rwanda, I am aware of how my presence can actually distract from the process as I am perceived as both an anomaly and the hopeful guarantor of a better life - both of which draw a crowd in the village and can therefore be disruptive.

To accommodate this lack of presence and ensure the probes could be tested in the field,

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70. The kits were sent to Rwanda in January 2009.

71. Olive is Green Blog, <http://oliveisgreen.blogspot.com>.

72. Murthy, Lakshmi, e-mail message to author, November 13, 2008. I connected with Professor M P Ranjan from the National Institute of Design who directed me to a former student, Lakshmi Murthy of Vikalp Designs, <http://vikpaldesigns.com>.

73. Freire, Paulo, *Pedagogy of the Oppressed* (New York: Continuum, 2000),11.

I employed the help of the executive director of the organization that I had partnered with while in Rwanda.<sup>74</sup> He is known by these women and had worked with them prior to my involvement. By removing myself from the experience, and having someone local act on my behalf, I reduce some of the distraction caused by being an outsider. But in decreasing this, I increase the opportunity for the information to be shared in a different way than I might imagine. Inviting other participants, who are not designers and may read my work differently, to assist in the design process opens a new dynamic into my research. Including a cross-cultural team to work on this project affects both the design process as well as the interpretation of the outcomes. While I cannot address all of these factors, I see the contradictions and tensions as being a necessary ingredient in the process. As one who is considering communication and design from a global perspective, I perceive this “lack of control” to equal the “fuzzy front end” that Elizabeth Sanders identifies as part of the early stages of a design process. This stage is laden with ambiguities but is just as valuable to the process as are the finalized outcomes.<sup>75</sup> As I had already determined to accept the value of the ambiguity, I began to consider the most ethical approach for delivering these probes.

### **Ethical Approach to Research**

The ethics of this process were considered because I was engaging with human subjects. This issue became heightened when I was faced with the reality that I would not be able to use text or oral communication to articulate my intentions directly, due to the obvious language barriers and physical absence from Rwanda. While these women knew me, I wanted to be considerate of the fact that the work was as much about research (therefore exposed to others) as it was relational. My solution for this tension was to write the women a letter that could be read aloud by my colleague using his translation of my words.<sup>76</sup>

This personal approach of requesting informed consent sought to respect and value a culture that connects through oral communication. Using a letter to describe the process was a way I could attempt to ask for “re-admission” into the community and invite the participants into their role in this research. This was a tool used in this circumstance but in doing this, I do not mean to suggest that it is the most ideal. Given the chance to be back in Rwanda, I would have preferred to have a pre-visit to talk about the details with the women before the probes were given out. I still would not want to be present when they received the kits, but my presence beforehand could demonstrate something that

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74. “Building Bridges With Rwanda (BBR) is a sustainable development initiative designed to promote mutual collaboration between Canadian and Rwandan partners. The bridge between Rwanda and Canada is founded on four pillars: ecological stewardship, economic development, social prosperity and cultural values.” (from <http://bbrwanda.org>)

75. Sanders, E.B. –N. Sanders and Pieter Jan Stappers, “Co-creation and the New Landscapes of Design”, *CoDesign International Journal of Co-Creation in Design and the Arts* 4, no.1 (2008): 6.

76. See Appendix A and B for the complete letter and informed consent form.

text is not able to do: humanize the project. Even with a letter being read aloud by someone local, the potential for getting lost in translation still exists, and increases the chances of my text being misread, misunderstood or misinterpreted. In spite of all of these challenges, the women were keen to participate and signed the consent form.



Figure 5.1: Trying the camera



Figure 5.2: Drawing in notepad





Figure 5.3: Signing consent form



Figure 5.4: Using the “desk”



## CHAPTER THREE

*The intention is more modest, that is to foster a critical consciousness when facing the enormous imbalance between the centers of power and the people submitted to these powers, because the imbalance is deeply undemocratic insofar as it negates participation.*

Gui Bonsiepe

## OUTCOMES

This section will first outline an overview of what was returned from Rwanda and then follow with my thoughts and reflections on these items. Future possibilities will be addressed in the conclusion.

I received the completed activities approximately one month after they were sent to Rwanda. Ten Ziploc bags came back filled with drawings, cameras and cards laden with red and green dots. As I began to open them, I could feel a subtle grit on each surface; a reminder of where these kits had been. Since I had no idea how they would have been viewed, I could only ponder what the results might reveal. Gaver's original ideas about how one should "read" probes reduced the pressure to discover some form of finite outcome. The probes do not, "seek to minimize or disguise the subjectivity of [the] process through controlled procedures or the appearance of impersonality."<sup>77</sup> Consequently, I maintained a mindset that I would not rationalize the information upon its return so as to embrace the ambiguity inherent in this design process.

### Aspiration Cards

Each set of twenty-five cards was sent back with twelve of the images coded with the coloured dots. The cards selected by all ten women seemed to highlight similar needs and wants, from cell phones to firewood. After comparing all ten sets, I noticed that no one had selected the card with the money, the rippling water, or the landscape of lush green land (see the Appendix C for samples of these cards and their coding). In the guidebook and letter, I had requested that each person write a number one on the most important in each category. Only a few did this and these individuals indicated that all twelve aspirations would be considered "number one." One participant however, actually numbered her cards to identify that there was a top choice as well as a descending order to her list:

NEEDS	WANTS
1. Clean water	House
2. Truck	Tractor
3. Education	Health
4. Shop for amenities	Jerrican
5. Firewood	Electricity
6. Cell phone	Computers

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77. Gaver, W., Boucher, A., Pennington, S., and Walker, B., "Cultural Probes and the Value of Uncertainty." *Interactions* 11, no. 5 (September - October 2004): 53-56.

This particular response was interesting to me because she was the only woman to code her cards in this way. In providing an order, she seems to suggest that picking one as the most important, is perhaps less relevant than understanding the multiple priorities an individual may possess.

## Cameras

The film was developed and as it turned out, no one took all the requested images (Figure 6.1, 6.2, 6.3 and 6.4 are samples).<sup>78</sup> Five of the ten rolls had some form of x-ray damage due to the airport screening process. Because of this and general lighting issues, it was difficult at times to assess exactly what each photograph represented. Thankfully, many could be deciphered based on the order they appeared on the roll. The lack of completeness may have had something to do with available time, how my guidebook was interpreted or because of the unfamiliarity of the camera itself.<sup>79</sup> These issues are of less concern to me as they can be adjusted in future explorations. What becomes more important is the possibility to have further clarifying conversations with the women about their respective photographs. With more inquiry, I can further understand what these photographs are telling me and how they might impact future design directions. My initial attempt to interpret the results will be addressed further in my reflections.

## Note Pad

The drawings that emerged were varied; from sketches of roads and villages to individual benefits like cell phones or bikes (Samples of the sketches are in Figures 7.1, 7.2, 7.3 and 7.4).<sup>80</sup> Many were mimics of the images found in the aspiration cards; sketches of electrical towers, computers, trucks and jerricans are but a few of these repeated images. In some cases, it seemed as though the drawings might have been traced. A few of the kits included notes offering additional information associated with the drawing, while others were text-only and referenced a fear of AIDS and that “Nice things are of gain to me” (*Ibyizakunje nimikino*). I am aware of how development organizations have bred a mindset<sup>81</sup> that keeps people believing that they need to answer a question in the way that satisfies the organizations expectations:

[When] you’ve lived on charity your whole life long, it’s really hard to say what you mean. And mostly because people never really ask you and when they do, you don’t think they really want

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78. The list of requested images can be found on pages 23-24 of this paper. A more intensive sampling of the resulting photographs can be found online at <http://www.flickr.com/photos/olivelife/sets/72157614368857535/> (accessed March 14, 2009).

79. The women asked my colleague how they could see their images as they anticipated a digital camera like the one I used with them in the summer. He explained that they would need to be developed before they could be viewed. All developed images will be sent back to the women in Rwanda.

80. Scans of all the note pad entries can be found online at <http://www.flickr.com/photos/olivelife/sets/72157614266052397/> (accessed on March 14, 2009).

81. This idea is covered extensively in *Voices of the Poor: Can Anyone Hear Us?* by Deepa Narayan et al.



Figure 6.3: "What I bought with 500 francs."



Figure 6.4: "This is in my purse."





Figure 6.1: "Where I live."



Figure 6.2: "What I wear on my feet."





Figure 7.1: Paved roads or tarmac.



Figure 7.2: Water well.





Figure 7.3: "I fear AIDS."

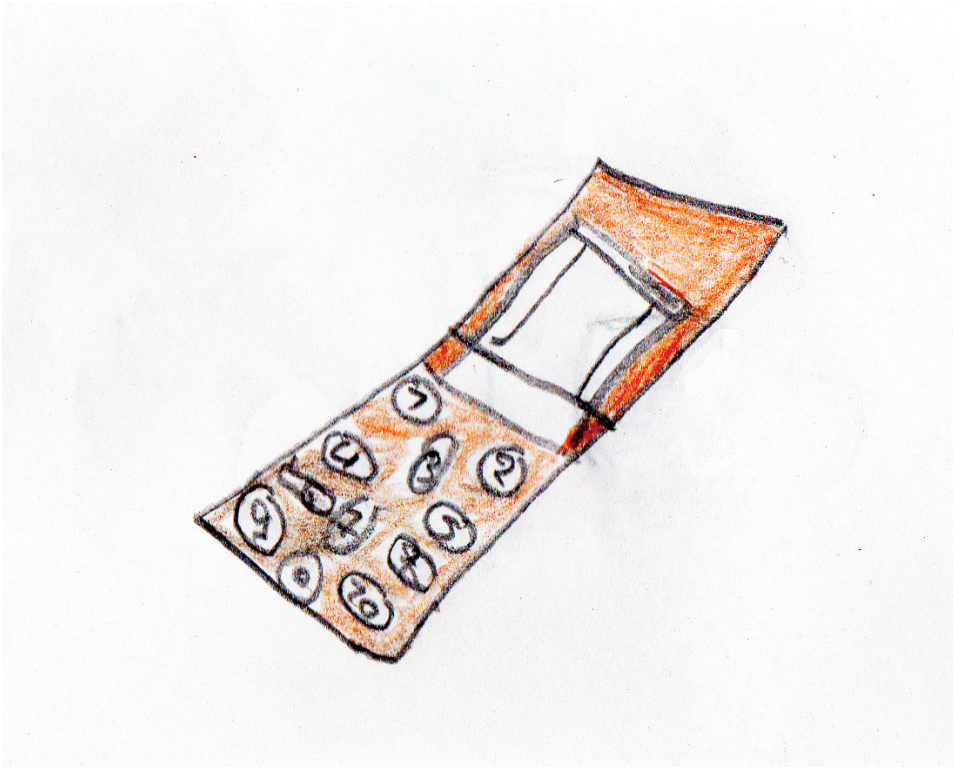


Figure 7.4: Cell phone.

to know the truth.<sup>82</sup>

Because of this mindset, it can be difficult to decipher all that is contained within these drawings. And it also means that there are likely many more ideas to be discovered beyond the confines of the note paper.

I also sent a short questionnaire that would ask further questions after the process was complete so as to gain insight for our next levels of dialogue. These were included in the textual portion sent to my colleague in Rwanda:

1. How did the bags work for you?
2. What would you improve? How did you wear it or use it?
3. What questions do you wish someone would ask you?
4. How would you improve this kind of kit?
5. Did you learn anything new from this experience?

The questionnaire was returned without any written answers but e-mail messages and images were sent to share a few insights and reflections. These included some correspondence with my colleague in which he identified that he was impressed with how the women quickly connected that this type of research could be a building block for better days ahead. While this was hopeful to me as a designer and a researcher, it can't account for the layers I am not witnessing in this process. He shared some feedback from the experience to help me understand the process I was not witnessing.

The field bags were being carried like a purse as opposed to around the waist and are now being used to bring Bibles to church. While this doesn't indicate how it was used by everyone at all times, it is perhaps telling that a women might prefer a more conventional function in order to make this type of research accessible and appropriate. Since I wanted to provide an item that could be useful after the project was finished, further conversations with the women about the material and form could address new ideas for improvements.

In response to my inquiry about what new learning occurred, the feedback suggests that they have learned about budgeting: "We learned the importance of planning our budget and saw that in fact, there was a lot of things that can be done using 500 francs a day." Another scenario that was particularly interesting occurred when one of the women was coming to deliver her probe to my

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82. Novogratz, Jacqueline, "Tackling Poverty With Patient Capital," Ted.com, [http://www.ted.com/index.php/talks/jacqueline\\_novogratz\\_on\\_patient\\_capitalism.html](http://www.ted.com/index.php/talks/jacqueline_novogratz_on_patient_capitalism.html).



colleague. Realizing that she had one photograph left, she decided to take a picture of a nice bright white truck parked in the shade (Figure 7.5). Unfortunately, she took this picture without paying attention to who might be inside. The truck happened to be a government vehicle so the driver followed her to where my colleague and the others were seated. This government representative threatened to destroy the camera in order to remove the photo. They explained that it was not a digital camera so the photo could not be deleted and begged for him to forgive the oversight.<sup>83</sup> He requested that my colleague and the women follow him to the truck to explain themselves to the rest of his team. Fortunately, my colleague knew the team leader so the incident was smoothed over and nothing was damaged. I'm still not sure what might have been said to justify the camera's survival, but it poses interesting realities about the issues of power and democracy that I am seeking to address in my work.



Figure 7.5: Vehicle parked in the shade.

### Reflections on a dialogical encounter

I will first comment on my general reflections about the process and then discuss more specifically my thoughts on the visual and material outcomes as tools for research.

Looking through the contents of the probes was both interesting and uncomfortable. I had been offered valuable information so I didn't want to mishandle or misrepresent what sat in front of me.<sup>84</sup> The multiplicity of voices represented in these outcomes host a larger narrative that I am attempting to read. Unlike the many visualizations of "life in Africa" that are presented on television or in magazines,

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83. It is standard practice in Rwanda to not photograph anything related to the government. While I may not understand why, it raises issues of how I, as a designer in another country, must navigate these realities when attempting to work in another country.

84. Glesne, Corrine. *Becoming Qualitative Researchers: An Introduction*, 3rd Edition. (Boston: Pearson Education, 2006), 138.

(which infer that this world is detached from ours), these items are from women I know and therefore present something tangible about their lives. As a designer, these distinctions affect how I must approach this information.

Because I was not able to witness the experience, I can only speculate on the conversations and perceptions around the insertion of this work into the village. I cannot presume to know the intricacies of their own power dynamics based on age, gender or class. These in-between spaces are both liberating (as they remove me from a place of obvious dominance) and disconcerting (because I am acutely aware of how my presence and/or ignorance, whether obvious or implied, has the potential to skew responses). By asking less obvious and more playful questions, I attempted to approach these inherent complexities by embracing, rather than deciphering, the uncertainties.

### **The material and the visual**

Designing the field bag introduced an unexpected layer to my research. While not part of my initial thoughts for this project, the bag serves as a reminder of the value that design thinking can offer a given challenge; it seeks to consider how to navigate a whole system and not just its individual parts. This type of process can add value to the development field when attempting to assess needs and sustainable solutions in a complex environment.

All the images of the kit had me longing to ask a next set of questions: Why this image? How could this desire or need be achieved? These questions represent a threshold of discovery that affect how one should interpret visual outcomes. The drawings and photographs created by the women became important for me when I looked at how the aspiration cards were coded. Offering these cards inherently suggests that a designer already knows what people need, and therefore may infer a level of assumption about particular cultural values. If I had included my own set of aspiration cards (made from images I had taken while in Rwanda) for this part of the probe, I believe I would still have offered potential assumptions about a context that is not my own. Because of this, I am challenged to consider how to choose and/or use pre-selected images in this type of research.

I have also wondered what might have happened if I had not included the cameras and drawing tools. My speculation is that I would have missed out on a richer narrative that is reflected in the outcomes of these activities. Because of this, I would propose that aspiration images be created by individuals in the country of research. By doing this, the information that emerges is contextualized, which is a necessary ingredient in the process of providing the most appropriate outcomes. This type of shift, according to Victor Margolin, provides the potential for a different mode of research and a

different kind of knowledge when approaching a design problem.<sup>85</sup> While presenting a wide range of possibilities for an imagined future is an important part of the design process, ensuring that the participants have the resources to achieve such a future becomes an important consideration.

In my attempt to create some sense of the visuals created by the women, I considered employing a methodology that is often used in visual anthropology research. In this case, photographs are taken by the researcher and then logged or indexed to assess things like patterns, locations, shapes, colours and other visual cues.<sup>86</sup> Having spent time with these women enabled me to make some connections when looking at the visuals, but I did not come to any finite conclusions. To me, this type of analysis assumes a one-way viewing of the images, which I did not want to pursue. While this approach to categorizing can be insightful on one level, there will always be tacit aspects that cannot be identified. Because I did not photograph or draw any of these images, I was no longer able to consider the patterns in the way this methodology suggests. In fact, I have asked the women to act as their own researchers, which would require future conversations to enable the interpretation to be more informative. As mentioned already, I am left wanting to ask more questions, which I believe is a good place to be as a designer when working with an unfamiliar community. By offering the cameras over to the women, I attempted to shift the perspective of “designer as expert” and provide the participant with the opportunity to identify their own narrative and meaning. This approach seeks to reverse “the dominant linear model of communication that privileges the artist [or designer] as the codifier of messages.”<sup>87</sup>

This paper cannot address all of the intricacies of interpreting images. It is also not meant to be an evaluation of photography and its role, history or methodologies. It does suggest the need for ongoing investigation into the ideas of how images are codified and how that codification affects design decisions in a cross-cultural context. The way an image is obtained or interpreted, whether it be simple or complex, is of utmost importance in gathering a fuller understanding of how people think - a vital aspect in the designer’s process. Ron Burnett, in *How Images Think*, makes a distinction when naming or interpreting an image; he prefers to call it *visualization*. In considering images as visualizations, I can begin to contemplate the various “vantage points” that develop when I look at the women’s photographs, drawings and coding of the aspiration cards. This collection of imagery represents multiple views that become “an entry point into the depth of the viewer’s experience.”<sup>88</sup>

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85. Margolin, Victor, “Building a Design Research Community,” *Design Plus Research: Proceedings of the Politecnico di Milano Conference*, May 18-20, 2000, edited by Silvia Pizzocaro, Amilton Arruda and Dijon De Moraes (Milan: Politecnico di Milano, 2000).

86. Collier, John Jr and Malcolm Collier. *Visual Anthropology: Photography as a Research Method*. (Albuquerque: University of New Mexico Press, 1986), 71.

87. Thackara, John, *In the Bubble: Designing in a Complex World*. (Cambridge: MIT Press, 2005), 184.

88. Burnett, Ron. *How Images Think*. (Cambridge: MIT Press, 2004), 11-14.

My original intention in using visuals was to see where they could bridge the gap when a shared spoken language became elusive. What I learned through this process is that images can be just as elusive as text and carry their own measure of ambiguity. As I seek to understand the needs and wishes of this community, I do not see these visuals as finite forms that I attempt to read in isolation. I have chosen to embrace this inherent ambiguity to reduce my assumptions as a designer and open up the opportunity for innovative ideas. The visuals also become the means to initiate a dialogic encounter; a way to provide me with more information that will allow for a conversation when our respective languages do not provide a common starting point: "Images and graphics are created not simply to be transmitted by [a designer] from one point to another, but to spark a multidirectional visual dialogue with other [designers] and participants in remote locations."<sup>89</sup> From a design research perspective, I see this dialogue as part of the process of *contextmapping*, which acts as a tool to sensitize participants to the next stages of a design process.<sup>90</sup> The probes acted as a preliminary step to prepare for the next level of conversation that could include the design of "new perceptual aids [that can help us understand] the state of our natural, human, and industrial systems."<sup>91</sup> In Rwanda, these next steps could also take the form of a generative process in which the women are involved in the co-creation of their own social innovations based on their interpretations of the ideas investigated during the probe process.

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89. Thackara, John, *In the Bubble: Designing in a Complex World*. (Cambridge: MIT Press, 2005), 184.

90. Sleeswijk Visser, F., Stappers, P.V., & Van Der Lugt, R., "Contextmapping: Experiences From Practice." *CoDesign: International Journal of Co-Creation in Design and the Arts* 1, no. 2 (April 2005): 119-149.

91. Thackara, John, *In the Bubble: Designing in a Complex World*. (Cambridge: MIT Press, 2005), 162.

## CHAPTER FOUR

*If you have come here to help me you are wasting your time but if you have come because your liberation is bound together with mine, then let us work together.*

Aboriginal Activists Group, Queensland

## CONCLUSION

Historical approaches to development projects have created a culture of top-down deliverables, and a particular mindset has been generated; one that seems to suggest that solving problems in the developing world requires an expert. In creating a website, that could not be sustained by a group of weavers in Rwanda, I found myself challenged to reconsider how design might function best in their context and approach problems in a way that did not “repeat the failing patterns of the past.”<sup>92</sup> My research sought to apply an appropriate cross-cultural design process that would alleviate this expert mindset and leave room for the underserved to be involved, even when we could not speak to each other in our native language. In doing this, I have sought to shift the perception about the role of design in this context by moving it “away from the material world and its visual artifacts toward a deeper understanding of natural processes and social relationships.”<sup>93</sup> This shift highlights the value of design research as a generator of “transformative artifacts that move the world from the current state to a preferred state” and positions the designer as someone who is able “to participate from their position of strength, from their application of design thinking; to address problems and frame problems.”<sup>94</sup> My research has sought to provide further dialogue about the role of a designer in this context and the tools required to be both effective and appropriate.

### The value of presence and absence in research

To be physically present in Rwanda, during the summer of 2008, offered me a particular connection with the women. But this connection didn’t offer a complete understanding of the needs and assets in their community. My absence, now that I am back in Canada, doesn’t offer a better solution but is an alternate space where I, as a designer looking at how design can be best applied, can consider other forms of dialogue in order to come to a greater understanding of these women and their community. For me, there are clear benefits and limitations on both sides of this process. To be present with this community while in Rwanda afforded me the privilege to continue our conversation from a distance. Being absent meant I had to work with others who must interpret my research and translate it, in order to help me test my ideas. Navigating these two spaces requires both an awareness of the distinction as well as an understanding of how each position might impact the community and the design outcomes.

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92. Scharmer, C. Otto. *Theory U: Leading from the Future as it Emerges, The Social Technology of Presencing* (San Francisco: Berrett Koehler, 2009), 50.

93. Thackara, John, *In the Bubble: Designing in a Complex World*. (Cambridge: MIT Press, 2004), 181.

94. Forlizzi, Jodi et al. “Crafting a Place for Interaction Design Research in HCI,” *Design Issues* 24, no. 3 (Summer 2008): 24.

### **Adaptive skills required for research**

The lack of shared verbal language and technological access were only two aspects to consider when designing in a cross-cultural context. I also had to step into other disciplines, like industrial design, human development and anthropology, in order to understand how to further the ideas I was investigating. From this space, ripe with uncertainty, I was able to discover something new and consider other possibilities for research. These possibilities suggest that from a place unfamiliarity, one has the potential to create something unexpected, whether it be a different product, a different service or a different way of thinking. Otto Scharmer reminds us that the greater the complexity, the less we can rely on our past experiences to address a given problem. Because of this, it is in our best interest as designers to, “[create] the conditions that inspire people and collective entities to operate from a different place.”<sup>95</sup> In this case, the conditions in Rwanda necessitated a shift toward a more creative method (the empathy probe), to investigate an unfamiliar community.

### **Myths that can affect research and outcomes**

Unfamiliarity has the potential to create myth and this can perpetuate ineffective responses to those on the periphery. Examples of such myths include the ideas that poverty can be donated into oblivion or that national economic growth and big business will eradicate it.<sup>96</sup> I believe designers have sometimes been influenced by this misinformation and this has led to outcomes that miss addressing actual needs. In this case, the myth becomes a frame for continuing to offer solutions that may not consider those who must live with the outcomes. CK Prahalad affirms that we must stop thinking of the underserved as victims or burdens but rather as creative entrepreneurs.<sup>97</sup> Paul Polak challenges multinationals to make radical shifts in how they design, price and deliver products to those who do not have the kind of resources anticipated in North America or Western Europe.<sup>98</sup> By being aware of these myths as a designer, appropriate and sustainable innovations can emerge.

My aim has been to contribute to the demystification of these ideas by employing a probe to ask questions, create dialogue and therefore include the underrepresented in the process of design at the “fuzzy front end.” It would have been easier and more convenient to transfer design solutions that work in my context over to Rwanda. Instead, I have attempted to shift my thinking and design approach by trying to communicate with the women *before* recommending any design outcomes for them. In doing so, I am attempting to consider their vision for wellbeing:

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95. Scharmer, C. Otto. *Theory U: Leading from the Future as it Emerges, The Social Technology of Presencing*. (San Francisco: Berrett Koehler, 2009), 74.

96. Polak, Paul, *Out of Poverty: What Works When Traditional Approaches Fail*. (San Francisco: Berrett-Koehler 2008), 34-48.

97. Prahalad, CK. *Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*. (Upper Saddle River: Wharton Publishing, 2005), 1.

98. Polak, Paul, *Out of Poverty: What Works When Traditional Approaches Fail*. (San Francisco: Berrett-Koehler 2008), 74.

This approach implies the introduction of the concept of capability, intended as the possibility for a person to achieve a result using his/her own personal resources and the set of solutions to which he/she has access. [...] The most interesting aspect of this concept is that it leads us to talk about people's wellbeing moving our attention away "from goods, to what goods enable human beings to achieve."<sup>99</sup>

## **Future Directions**

In looking forward, I can see various possibilities for the ideas presented in this paper. On a very practical level, I would like to continue exploring the tools developed so that new ideas can be considered for future use and application. An example of this could include adapting the images taken by the women to create a next iteration of aspiration cards. Another direction would be to further interpret the information provided to me and build on actual design projects that address the needs and wants expressed by the women.

As an ambitious designer, I'd like to attempt both as I see how each aspect will contribute to larger possibilities beyond this particular village. The kits were designed for them initially, so moving toward actual outcomes based on their responses remains consistent with my process. But I am also aware of how this type of tool could be adapted in a variety of other scenarios where issues of language or technology are not present or available. Because it could be used by other disciplines, I see the benefit of adapting the probe for those outside of the field of design. Individuals working in community planning, economic development and healthcare have expressed interest in this type of tool to aid in their respective research processes. By making these tools accessible and adaptable for other researchers and practitioners, a transparent network can be created.

Beyond these ideas, I would hope that the research presented in this paper could contribute to the evolving pedagogy in design. In North America, a designer could be well served in learning about various cross-cultural design issues and methods in order to become more socially, culturally and ethically prepared. This will have an impact on the work done in his or her own country as well as benefit those on other continents. There are no design programs in Rwanda currently, but these ideas could be expanded upon in order to promote Rwandans pursuing their own research and therefore, providing culturally applicable outcomes that benefit their future: "What must be developed are the knowledge and the tools that are necessary to collaborate with a variety of interlocutors. More precisely: [...]to promote the convergence of different actors towards shared ideas and potential solutions."<sup>100</sup> If I were

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99. Manzini, Ezio. "Design Research for Sustainable Social Innovation." R. Michel (Ed.) *Design Research Now: Essays and Selected Projects* (2007): 242.

100. Manzini, Ezio, "Design Research for Sustainable Social Innovation," *Design Research Now: Essays and Selected Projects*, ed. R. Michel (Basel: Birkhauser, 2007): 243.



to return to further this research, I would aim to include local university students in my process and suggest the use of visuals as a method to access information that might normally be overlooked in development projects.

In an age where climate change and sustainable development are challenges that designers (and villages in Africa) face, I hope this research helps to move design beyond its often misunderstood position as a tool for mere styling<sup>101</sup> and emerge more strongly as a conduit for democracy and social innovation.<sup>102</sup> To me, offering people the chance to be the generators of their own outcomes and finding methods to allow for this, creates a more dignified approach when working with individuals who continue to be classified as the periphery. This naming, associated with economic indicators, inherently positions them as individuals who are unable to contribute. Moving beyond these materialist ideas will be a start in shifting perceptions of design for the underserved.

John Thackara acknowledges that there is a space where a designer can embrace the complexity and unpredictability of systems by “designing in the space of flows.” This space focuses on how things work and changes the relationship between “the people who make things and the people who use them.”<sup>103</sup> This offers the periphery the opportunity to be co-creators in the design process through their own doing, making, adapting and creating.<sup>104</sup> Ezio Manzini suggests that the outcomes of such a shift could be realized in *governance toolkits* where people are given access to “physical and virtual spaces where they can share ideas, communicate, help each other and collaboratively build a new body of common knowledge.”<sup>105</sup>

As this is merely the beginning of a much bigger research question, I will pose ideas that have surfaced from my work, which I feel merit further investigation:

1. If we, as designers have been accused of being interlopers, associated with the unwelcome history of colonization and consumerism, how do we now posture ourselves in this current age? What will design look like from this position? And what does a designer do (or not do) in light of this?
2. How can design education equip the next generation of designers to understand the interstitial

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101. Buchanan, Richard and Victor Margolin. *Discovering Design: Explorations in Design Studies*, (Chicago: University of Chicago Press, 1995), 45-46.

102. Manzini, Ezio, “Emerging User Demands for Sustainable Solutions,” *Design Research Now: Essays and Selected Projects*, ed. R. Michel (Basel: Birkhauser, 2007): 243.

103. Thackara, John. *In the Bubble: Designing in a Complex World*. (Cambridge: MIT Press, 2005), 212.

104. Sanders, E.B. -N. Sanders and Pieter Jan Stappers, “Co-creation and the New Landscapes of Design,” *CoDesign International Journal of Co-Creation in Design and the Arts* 4, no. 1 (March 2008): 12.

105. Manzini, Ezio, “Design Research for Sustainable Social Innovation,” *Design Research Now: Essays and Selected Projects*, ed. R. Michel (Basel: Birkhauser, 2007): 241.

spaces that are created when we design outside of our own context? How should design education incorporate technical, environmental, cultural and ethical preparedness in its process?

3. How can the design academy and the design industry align more cohesively in their processes, methodologies and outcomes? While there are examples of this occurring in both realms already<sup>106</sup>, how can a stronger link be established to increase the potential for sustainable solutions in our current global economic reality?

4. What types of images (or other tools) could be improved upon to broaden this work? Should the designer focus on leapfrogging<sup>107</sup> ideas, like mobile phones or other technologies, to “advance” these tools or do we need to find culturally inclusive and environmentally sustainable alternatives to develop the ideas of democracy and governance?

5. Can colour, texture, sound, taste or smell be explored further as a means to communicate when a shared language is not available?<sup>108</sup>

“In the contemporary world, design is the domain of vividly competing ideas about what it means to be human,” which begs an understanding of its central themes: “power and control, materialism and pleasure, spirituality and character.”<sup>109</sup> In considering how to move forward with these in mind, it is important to understand the complexities that may surface when working with people, especially if they are positioned on the periphery. Because there are gaps and associated assumptions, a space has been created where design must continue to explore its role in this contemporary society, so as to handle its influence and impact appropriately and sustainably:

Every design intervention creates a disturbance in the environment in which it occurs. I propose that we, as information designers, should look at existing knowledge in the sciences of observation, but should develop fast, and further the existing knowledge of effective intervention. This is not to be exclusively task-oriented, exclusively centered on the design brief, but also critical of the cultural impact that every public action inevitably has. This takes us to

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106. The Rural Studio (<http://www.cadc.auburn.edu/soa/rural-studio/>) and Design That Matters (<http://www.designthatmatters.org/>) are examples of initiatives that seek to address this by handling real world scenarios in their projects.

107. “Leapfrogging is the notion that areas which have poorly-developed technology or economic bases can move themselves forward rapidly through the adoption of modern systems without going through intermediary steps. Rather than following the already-developed nations in the same course of “progress,” leapfrogging means that developing regions can experiment with emerging tools, models and ideas for building their societies” (from <http://www.worldchanging.com/archives/001743.html>).

108. Thackara, John. *In the Bubble: Designing in a Complex World*. (Cambridge: MIT Press, 2005), 171. I had hoped to incorporate these ideas in the original kit but due to timing and funding was not able to explore this further.

109. Buchanan, Richard. “Rhetoric, Humanism and Design.” *Discovering Design: Explorations in Design Studies*. (Chicago: University of Chicago Press, 1995), 56.

the need to explore in other occasions the generally known terrain of the interaction between cognitive performance and culture.<sup>110</sup>

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110. Frascara, Jorge. "Cognition, Emotion and Other Inescapable Dimensions of Human Experience." *Visible Language* 33, no. 1 (1999). [http://trex.id.iit.edu/visiblelanguage/Feature\\_Articles/Frascara\\_CognitionEmotion/FascaraPt2.html](http://trex.id.iit.edu/visiblelanguage/Feature_Articles/Frascara_CognitionEmotion/FascaraPt2.html) (accessed on March 15, 2009).

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## **APPENDIX**

### **A. Letter to COVAGA**

Dear COVAGA members,

I write this letter to you and wish that I was speaking with you in person (with the help of Lama translating, of course). I am back in Canada but have not stopped thinking about you or your work since I got back from Rwanda. I have included the portraits that we took in the summer. I also had a rubber stamp made of your logo so you can remind people who made the work they purchased. I included some price tags to stamp this logo and add a price for your work. You can attach them to your items with amarebe! I hope all of these things are useful to you.

Because of my time in Rwanda, I am continuing my research at my school with a focus on the things we started when Mitch and I were there. I am doing this in hopes that these ideas could be developed further and increase opportunities for you. I have shared these ideas with others who have an interest in doing work in Rwanda and they are all supportive and hopeful for this as well.

Do you remember when we sat in your workshop and some of you created drawings for me so I could design the logo for COVAGA? And then that logo was used on a website that was shared at an exhibit at the Museum of Natural History where over 100 people had the chance to learn more about your work. Those drawings became a way for you to show me what you thought about your work and in turn, I was able to help you communicate more of your story to those who didn't know about you. In the same way, I would like to find out more about you and your ideas so that when people ask me how to help you, they get your perspective and not just mine. I hope to see how a community of people who live in Rwanda can identify their own ideas of community and economic development so that business can develop and poverty can be reduced. I believe that within your community there are many good ideas and because we don't share the same language sometimes you don't always have a chance to share your ideas with those who seek to come and help you. So I've developed a tool to act as a way for us to try to communicate visually.

### **THE PROJECT**

I am asking for 10 people to participate in this research (with hopes of future opportunities to go farther). If you wish to participate, Lama has a piece of paper for you to sign your name on so that it shows that you understand what this project is all about. It should take you about two weeks to finish this. If you have any questions, Lama will be available to help you. He will give you a demonstration so you know what each item is to be used for.

I have created a kit that has various items in it. These items are for 10 people to work on and then return to Lama. Some of you may need help in reading some of the information. I've done my best to translate it into Kinyarwanda but you may not be able to understand it so you can ask others to help you or ask Lama to clarify.

### **THE CAMERA**

When you take a picture don't stand too close to the thing you are shooting. You should stand about 1 meter away (or two arms length). This will ensure that your pictures turn out and aren't blurry. You should also take pictures in the day. This camera will not be able to produce a picture after the sun has gone away.

The camera has 27 things listed and I would like you to take a picture of what that phrase means to you. Please note! This camera isn't for taking pictures at a wedding. It is to be used to help me learn about the needs each person has as it relates to your life in Gashora.

### **JUST FOR YOU ENVELOPE**

This is an envelope that has 500 francs inside. When you get to photo #16, I want you to buy something with it and take a picture of what you buy.

### **WHAT I WANT/WHAT I NEED**

There are images already provided in this exercise and you just need to pick which image means more to you in your life now (makes your life possible) and which picture is something you hope for in the future (make your life better). Use the appropriate stickers to show me which ones mean the most to you. You can pick 6 images for each category (What I want and What I need). Choose one of the 6 wants and needs and put a 1 on it to show me which one is most important to you.

### **NOTEBOOK**

Use this little book to draw things that you think are necessary or needed and improve your community.

When you are finished with this research project, you can keep the bag and pencils (I made them to be used as a bag for your future use - hopefully as a "field kit" for designing your own ideas!). I will need to collect the camera and the papers in the bag. There is a plastic bag that you can put your name on, and give to Lama. He will return after you are done to pick up the items and place them in your plastic bag. The images on the camera will be copied and sent to you once they are ready.

This information is going to be helpful for those who are interested in partnering with you in the future

so being honest and truthful will be a benefit to this research. Don't try to give me an answer you think I want to hear. I want to know what you really think and feel.

Thank you so much for participating with me! I am looking at ways I can return to work with you on more ideas that will help develop your community.

**B. Informed Consent Form**  
**Emily Carr University of Art + Design**  
**January 2009**

This student project is part of my coursework for my Masters of Applied Arts program in Design at Emily Carr University.

PROJECT TITLE: Participatory research to understand the needs of a village from their perspective by using visual tools.

RESEARCHER: Kara Pecknold

This form gives a brief description of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or any other information not included here, please feel free to ask. Take time to read this carefully and to understand any accompanying information.

**Purpose of Research**

The purpose of this research is to hear the ideas of those who may not be consulted when considering development projects. In the field of design, human-focused techniques are important to effectively understanding what to design.

**Research Procedure**

A package of information will be provided to you (cameras, notebook, images) and you are being asked to participate in each activity and submit your completed package to Lama Mugabo. The photographs will be printed and sent back to you upon completion. The bags and pencils can be kept by each participant.

**Confidentiality**

Confidentiality will be maintained. Your name and any identifying information will be kept confidential. No response will be connected with any individual participant. Any information used in reports, presentations, portfolio presentations, or papers will not use participants' real names.

**Voluntary Participation**

Each person's participation is completely voluntary. Any person is free to discontinue his or her participation at any time and for any reason. You are free to refrain from answering any questions you

prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you may ask for clarification or new information throughout your participation.

If you have any questions or desire further information with respect to this project, please contact Lama Mugabo.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the student project and agree to participate as a subject.

If you agree to participate in the described student project, please sign with today's date on the following page. Your signature constitutes your consent to participate and shows that you have read and understand this consent form.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

If you agree to participate in the described research, please write and sign your name below. Your signature constitutes your consent to participate and shows that you understand the explanation of the consent form.

#	Name (please print)	Signature
01.		
02.		
03.		
04.		
05.		
06.		
07.		
08.		
09.		
10.		

Kara Pecknold

Emily Carr University of Art + Design

CONTACT INFORMATION

kpecknold@ecuad.ca



## C. ASPIRATION CARDS<sup>1</sup>



1. All aspiration cards are used by permission from IDEO except for the image of the children using the laptop (<http://wiki.laptop.org/images/e/e2/PNG-Gaire-5.jpg>; Creative Commons License) and the water bottle ([http://commons.wikimedia.org/wiki/File:Brand\\_Cielo\\_Water\\_Bottle\\_2.5\\_Litre.jpg](http://commons.wikimedia.org/wiki/File:Brand_Cielo_Water_Bottle_2.5_Litre.jpg); GNU Free Documentation License).

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## C. ASPIRATION CARDS<sup>1</sup>



Due to the inability to acquire copyright permission, the image shown here has been removed.

The image consisted of a family standing near a water well in a village in Africa. This specific image was used to visually inquire about the aspiration of a water well. The color coding identifies those who felt it was needed (red) or who wished for in the future (green).



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