## Arts-Based Methods as Tools for Co-design in a South African Community-based Design Co-operative

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Arts and visual participatory methods can be effective tools to facilitate the experience of rural design actors involved in a co-design process that could be seen as contributions to the emerging praxis called "Design Social." We identify the inclusion of visual processes to co-design and comanufacture Venda-fusion products with members of a South African rural-based sewing group called Zwonaka Sewing Co-operative. The co-design process involved a set of iterations that used visual modes such as Photovoice, painting, photographs, collaging and appliqué to create and market these products. Statements shared by the group members reveal the development of their personal agency, as well as confidence in product design, manufacturing, and ownership of the design process. These are significant outcomes for this particular social context, and we propose that the use of arts and visual methods enhances capacities of reciprocity, creative thinking and ownership through the co-design process.

#Zwonaka Sewing Co-operative

#Co-Design

#Co-Creation

#Arts-Based Methods

**#Social Innovation** 

#### Introduction and context

The South African National Research Foundation (NRF) funded a program called Arts-based approaches for development (2011-2014) at the University of Johannesburg (UJ), which aimed to research the role that higher education could play in community-engaged development of partner communities through the arts. The program intended to expand notions of servicelearning with a more social activist approach to participatory interventions (Berman and Allen 2012). One of the outcomes of the larger project was the development of a self-supporting sewing co-operative undertaken as a Master's research project (Mchunu 2013). We contend that the project aligns with the emerging field of social design as it promotes the potential of design to tackle social complexities. In an introduction to a special issue on social design, authors Chen et al. (2015, 1) posit that the field "has given new tools to help [designers] work with abstract entities such as service and communities rather than just with things." The authors assert further that "[s]ocial design seems to go to those places and spaces in which people live and work with them; the relationship is collaborative and usually respectful of local habits and customs" (Chen et al. 2015, 1). The project discussed in this paper used a participatory pedagogy that engaged creative practices and fashion design to address unemployment and poverty in a rural community. The Zwonaka sewing co-operative (named with a tshiVenda word meaning beautiful) was established with four women from HaMakuya, a chieftaincy in rural Venda, South Africa. The development and design process was developed through interventions with arts- and visual-based approaches to promote an innovative, collaborative, participatory and democratic environment.

Design at a social context has been written about extensively. Adam Thorpe and Lorraine

Gamman (2011) discuss the importance of equitable arrange-ments between all involved stakeholders for collaboration and agency to happen successfully in design-led social innovation. Miaosen Gong et al. (2010) provide several cases that demonstrate how service design can be a viable approach to intervene with social innovations. Closer to our context, Keneilwe Munyai and M'Rithaa Mugendi (2014), provide cases of designers and crafters in the 'small, medium and micro enterprise (SMME)' sector collaborating to address high levels of unemployment in the city of Cape Town as a result of urbanisation. From these authors, it is evident that collaboration, equity, agency, and sustainability in social design are important themes. While these themes are also evident in the present paper, we grapple with the mode of interaction in social design described by Pelle Ehn (1989) and Clay Spinuzzi (2005) as "the tension of co-design". In addition to this, we integrate the potential and value of arts-based methods to this tension and explore ways in which multi-modal methods enhance collaboration and agency of the participants in a design social context. Agency in this context values the responsibility to act and is supported by the capacities of voice, resilience, and imagination that place participants at the centre of their own development (Berman et al. 2012, 12).

Participatory design, or co-design, a methodology used in social design, originated in Scandinavia during the 1970s and 1980s, and promotes collaboration in the design process (Spinuzzi, 2005). We readily adapt it to the African context because the notion of collaboration and participation has existed in African thought and practice for many centuries. For example, collaborative decision-making is traditionally achieved during communal meetings called *imbizo* (IsiZulu) or *lekgotla* (Setswana) or in tshiVenda *mutangano*. There is also the idea of communal co-parenting embedded in the proverb "it takes a village to raise a child," which is common to many parts of Africa. The value of teamwork is also widely expressed in the Nguni saying *angiyona inkomo edla yodwa* (I am not a cow that grazes on its own). Heike Winschiers-Theophilus *et al.* (2012) and Kate Chmela-Jones (2015) contributed to design theory by acknowledging the value of African indigenous knowledge about collaboration to participatory design praxis.

The idea of working together symbolically and practically embodied the theme of collaboration, which underpinned the process of co-designing Venda-fusion products with the members. Lara Allen, then director of Tshulu Trust, the community trust of HaMakuya, coined the term Venda-fusion. The term responds to the government department's call to "invest in culture," and is used by the co-operative to brand their products and advertise them to a wider market. The design aesthetic is achieved by manufacturing contemporary styled products using nwenda, a form of cloth that is understood to be traditional Venda material. While nwenda is the most commonly used term for the material, strictly speaking it refers to particular traditional female dress customarily made from this cloth.

South Africa has a history of racial segregation, most rigorously operated under the apartheid system (1948-1994). The transition into democracy meant recognising those groups that were previously oppressed and operating under a newly envisaged trajectory known affectionately as "the rainbow nation," which alludes to the diverse cultural groups of the country. Lily Becker (2005) asserts that "in the process of building a democratic and socially cohesive society in South Africa, it is imperative that we communicate through working together in groups and enter into a relationship with the other." Marc Steen (2011, 47) recognises that working in a space that has differences is one of the tensions of a codesign process. Engaging in a co-design process, particularly in the Zwonaka context, meant acknowledging and accepting differences of the various design actors.

While all participants directly involved were of African descent, the first author, who worked most with the group, had a different background from the women participants: differences included dialectically different home languages (tshiVenda speakers/Zulu speaker), social backgrounds (rural/urban), educational background (minimal education/university education), generational differences (old/young), and gender (all-female group/only male outsiderdesigner). Clay Spinuzzi (2005, 166) postulates that the most distinct and influential notion of participatory design is the "language game" that is, bridging the many worlds of the co-design actors by finding a common "language" or mode of interaction (see also Ehn 1989). Nancy Cantor acknowledges the "power of the arts and cultural disciplines to amplify community voices and build the critical bridges crossing boundaries" (Cantor 2014), and arts-based methods served this purpose in our case. In a similar discussion, Krensky and Steffen (2008, 15) assert that artsbased approaches placed within a frame of service-learning act as tools to bring people together, to support collective action and to create opportunity for envisioning a better community. The potential of visual and arts-based methods in development contexts have been used widely in South Africa and are well documented (Berman 2009; 2013). The Zwonaka sewing co-operative is the example of this potential. The first author of this article (Mchunu), who was also the trainer and designer of the intervention, analysed the project as part of a Master's study. The co-author (Berman) supervised the study as part of the UJbased community-engaged research program grant from the NRF.

#### Background of the case

The South African government identified the site of this engagement in HaMakuya, in the Mutale district of Limpopo Province, as a poverty node with local unemployment reaching up to 90% at the time of the intervention (www. tshulutrust.org). Most residents depend on the social grant system, particularly child grants and pension grants. The UJ through its community engagement program, Arts-based Approaches for Development, entered into partnership with Tshulu Trust. The Trust had established a fully equipped residential research site with funds from the National Lotteries to attract visiting international students to stav in the tented accommodation and conduct environmental research in the neighbouring Kruger National Park and surrounds. This was an important factor for the intervention discussed in this article, which addressed unemployment in the neighbouring village. The intervention contributed to the Trust's aim to alleviate poverty by increasing opportunities for income generation by community members (www. tshulutrust.org) through the development of micro-enterprises, such as the sewing cooperative, and a catering unit to serve the visiting student market.

The community Trust first established a sewing co-operative in 2007 as part of a number of poverty alleviation initiatives funded by local government, and directly supported it for the first two years. Although the first sewing co-operative, which involved a different group of women, was successful in generating more income per annum from sales than the equivalent of minimum wage salaries for its members, it closed down after two and a half years. Reasons given by the group for their resignation included a desire to receive a regular monthly stipend, as was the case for the first two years while the co-operative was part of the government-funded program. They deemed a small but regular stipend, which was significantly less than the minimum wage, preferable to the larger but irregular earnings derived from their independent business.

The co-operative members also expressed their frustration over the irregular working hours that resulted from periods of intensive, pressured activity caused by large orders (due to visiting student groups), interspersed with periods of inactivity between orders. Reflecting on the experience of developing the sewing cooperative, and particularly on its sudden closure, the Trust director (Lara Allen) realised that the co-operative's demise was in part a result of a significant contradiction inherent in the way in which it was set up. The initial government funding was part of a larger job creation program, which guaranteed that all participants received the same monthly stipend for a period of two years. After this time, the micro-enterprises created through the program were expected to continue without government support. However, people who possibly had the entrepreneurial drive required to successfully keep a microenterprise going were not attracted by the initial small stipend and did not apply to take part. But those to whom a small regular income appealed were not comfortable with the stresses of entrepreneurship required to keep the project afloat (Lara Allen, personal interview, May 18, 2012).

Given the continuing employment opportunities offered by the steady market created by other Trust activities, the Trust wished to establish a second sewing co-operative. The Trust's director approached the UJ's Fashion department who then nominated the first author for a fashion design Master's degree candidate to initiate a new sewing group as a part of the Arts-based Approaches for Development program. The challenges this posed required an intervention inspired by a participatory approach in which community members interested in the arts and business could work with a designer/trainer to address questions of economic sustainability, empowerment, substantive learning, skills training, and product design and development. Community-based participatory methods were introduced from the start to ensure that the incubation of the co-operative resulted in real empowerment and a sense of ownership. This included using visual and arts-based methods to co-design products that are sold at the cooperative.

# Theoretical considerations for social design

Depending on the themes of collaboration, joint decision-making and teamwork, our approach was closely related to Freire's idea of dialogue, as discussed in his book Pedagogy of the Oppressed (1970). He describes the importance of dialogue in a participatory approach as "the encounter in which the united reflection and action of the dialoguers are addressed to the world which is to be transformed and humanised, this dialogue cannot be reduced to the act of one person's 'depositing' ideas in another" (Freire 1970, 89). This notion framed our co-design process to democratise the experience as much as possible, and used dialogue as a pertinent component of collaboration and participation. For the purpose of this article, and considering the work of codesigning Venda-fusion products with the Zwonaka members, we also borrow from Ezio Manzini (2014) and Marc Steen (2011). Steen (2011, 52) defines a co-design process as:

An attempt to facilitate diverse people with diverse backgrounds and skills—to co-operate creatively, so that they can explore jointly and envision ideas, make, discuss sketches, and tinker with mock-ups. Apart from it being a facilitated process of cooperating creatively, Manzini (2014, 99) points out the value of:

Social conversations in which everybody is allowed to bring ideas and take action, even though these ideas and actions could, at times, generate problems and tensions. It is a process in which different people with different ideas and languages interact and, sometimes, converge towards common results

The Zwonaka intervention had two parts: the research project and the sewing project. Our endeavour and holistically that of the Arts-based Approaches for Development program, was to counter the idea of "helicopter" research-that is researchers who come into a community, take from the community, and leave the community with very little. This is an ethical issue of participatory design posed by Penny Hagen and Toni Robertson (2012 87), who propose that we as designers "might ask who, exactly, benefits from this participation and how can we, as designers, act to maximise the benefits to the participants while avoiding their possible harm and exploitation." For this reason, co-design was an appropriate approach that we argue could be socially relevant and could inculcate a sense of ownership of the research and the project for the four members. Gavin Melles et al. (2011, 149) postulate that designers who engage effectively with communities and then co-design and comanufacture a solution that utilises local or regional materials, craftsmanship and expertise, and facilities, while developing new skills and knowledge acquisition, empower the community and allow the solution to be "owned." Likewise, Venda-fusion products were produced with materials bought in Thohoyandou, the biggest town closest to HaMakuya (about 50 km). We also used sewing machines and other equipment that were sponsored by the Trust.

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Victor Papanek is credited with the development of the ideas about social design through his book Design for the real world (1984). Design Social can be perceived as a design practice posited by Manzini as being in an on-going evolution. This evolution shows a trajectory going from twentieth century design oriented towards European and North American middle-classes, and moving towards a system-oriented design participating in larger co-design processes of very different contexts (2014, 96). The Zwonaka context can be viewed as a case of design for social innovation, which is described as a structured vision of what design could do for social change that includes a sequence of actions characterised by a clear design approach (Manzini 2013, 57). Implementing this sequence of design actions in the Zwonaka co-design process was supported by a participatory pedagogical approach that used arts-based approaches as methodological tools.

#### Arts-based approaches in the Hamakuya context

Kim Berman (the second author) utilised her experience in community projects to mount a ten-week module for university art students participating in the Arts-based Approaches for Development program, attended by the first author in preparation for the HaMakuya community intervention. The weekly seminars introduced participatory methodologies and developmental approaches to evaluations that included Participatory Action Research (Reason and Bradbury 2006; Stringer 1999), Most Significant Change (MSC) (Davies and Dart 2005) and Appreciative Inquiry (Hammond 1998). Other methods that were introduced included visual narrative strategies such as Photovoice (Wang and Buris 1997) as well as critical and transformative pedagogical strategies that include public scholarship and civic studies (Boyte and Levine et al. 2014), education for transformation (Ash and Clayton 2009). Paper

Prayers (Berman 2009; 2012) were also included in the module workshops to convey empathetic listening skills and the notion of arts as a form of healing and empowerment. Some of these underlying principles include the view that a participatory approach at a social level aims to produce knowledge and action that is directly useful to a group of people, and to empower them to construct and use their own knowledge (Reason and Bradbury 2008, 2). The position posited here is that arts-based approaches are transformative and core to engaging community participants in social design.

The learning module was followed by the intervention in HaMakuva in which senior art and drama students embarked on a one-week visit to the site to introduce arts-based approaches and activities in partnership with the local clinic and schools. Before the intervention, students participated in a "home-stay" with a local family in a homestead for two nights. During this process of cultural immersion, they contributed to household chores such as collecting water from the river or communal taps, tending goats, and preparing traditional food. Using a translator, the students engaged with and introduced themselves to their hosts through Photovoice, a method evolved by Caroline Wang (1997). Participants in this visual method use meaningful photographs that they themselves take, accompanied by their narratives to communicate a pertinent issue. The students passed on a camera and basic skills to members of the household to take their own photographs of meaningful images. This introduction set the ethos for participatory and mutual exchange of respect and empathetic listening (Berman and Allen 2012). Participating in "home-stays" was also an "eye-opener" about the context in which the co-design process takes place. It extended the idea of "placing the people's interactions and interrelations at the heart of each encounter" in a co-design experience (Winschiers et al. 2012, 98).

These processes were also applied in the intervention with the Zwonaka sewing co-operative by giving participants an opportunity to negotiate and define the conditions for participation, such as agreeing on a working time and days that would best work for their context. For example, a statement by a participant expressed through her own Photovoice exercise, "I wake up at 4 o'clock in the morning to get wood and water to prepare food for my husband and children and then I go to work at a school feeding scheme at 5 o'clock until midday. And then I can only come [into work] at Tribal to do some sewing," provides a clear picture for her to negotiate the collaborative process. As outsider-designers we found that such understandings were deepened further through participation in programs such as "home-stays" as they cemented insight, empathy, and understanding of the situation of our design partners.

#### Methodology and ethical considerations

While the development of the co-operative adopted participatory action research, the pedagogical approach for the research design of the intervention followed the participatory methodology of co-design. Spinuzzi (2005, 166) asserts that the methodology of participatory design is derived from participatory action research as a way to understand knowledge by doing. Described as an iterative process, participatory design allows all actors to interrogate developing designs and ground their design conversations in the desired outcomes of the process (Spinuzzi 2005; Robinson and Simonsen 2012a; Simonsen and Robinson 2012b). Likewise, the co-design process of the HaMakuya case can be described as having progressed as a set of iterations to enhance the experience of all participants and maximise their potential to contribute to the process meaningfully. The camera in conjunction with focus group discussions was used each time as a visual method in the training process to enhance the collaborative and participatory experience. This approach allowed participants to reflect on and examine the iterations critically.

Before the co-design process commenced, the group signed consent forms that notified them about the process in its entirety including what the co-design process entailed, and stipulated the responsibilities of all participants. The group was informed that the process would be photographed. All members were also made aware that they would operate sewing machines and other equipment such as scissors and ironing equipment at their own risk. All members were given freedom to contribute design ideas, to ask questions, and to withdraw from the partnership.

## Co-designing Venda-fusion products: the case

The section that follows is a brief summary of the co-design process for Venda-fusion products. The section discusses preparing the group to design and co-create using arts-based methods, and marketing the co-created Venda-fusion products. Interspersed with this discussion are some comments by the group members about the process to indicate the effectiveness of a co-design process in product development.

Three of the members had never worked on sewing machines before and were introduced to different sewing equipment and machinery. Some found it challenging to remember all of the threading steps for the machine and experienced difficulty fixing machine problems that occurred during sewing, such as incorrect stitches. In order to address this challenge we introduced the camera as a visual training tool and showed the group how to use it. The group photographed all of the sewing machine threading sequences, as well as the problems encountered by the machine, and actions to take to fix those problems (Fig. 1). The resulting visuals were displayed in the sewing venue, and supported by text written in the local vernacular so that they could be referred to easily. At this point of the codesign process, inexpensive low-grade materials were used in order to allow the group to reach their desired level of sewing competency without the pressure of selling the products. The comment by a participant, "I am now able to see if I am going wrong in my sewing because I even look at the pictures on the wall," demonstrates that this specific arts-based approach was effective. Over time we observed that the participants stopped referring to the photographs and the wall was used for other training such as recording finances. Four months after basic training was implemented Venda-fusion products were manufactured for sale.

In the next phase of the process we employed photographs and narratives to develop new products with the participants. At times the participants expressed frustration over the long distances they walked from home to get to the cooperative venue. Inspired by appreciative inquiry, we adopted a positive perspective on this frustration by formulating a design development exercise using this time to spark creativity and help to support new ways of thinking and looking at the world. We called it the "pathway exercise". Each member was challenged to take photographs of environmental surroundings that they found meaningful on their path to work by using their cell phones or digital cameras (provided by the UJ). Because of the focus of collaborative practice and teamwork, to get the process started, the first author accompanied the participants on the walk the first time it was applied. The aim was to incorporate their photographed surroundings in their Venda-fusion products in a creative way. Some photographed subjects such as cattle, cowbells, grass-thatched huts, and baobab trees. The images below show how some of the images photographed and then drawn by the participants were interpreted into Venda-fusion design. In an experimental design

process, they used the shapes of cutout stencils to collage or sew the images onto cloth to produce unique designs.

Using the process of Photovoice, the participant who photographed the baobab trees that she saw on her way to the venue thought about the significance of the tree: she thought it was a unique feature found only in certain parts of Southern Africa including HaMakuya, which qualified it as an important element to add to Venda-fusion (Fig. 2). It was interpreted as an appliqué detail on one of the skirts (Fig. 3). As it turned out, the skirt did not sell well but it was significant that the idea of the participant be tried and tested.

Another participant noticed many grass-roof thatched huts during the walk and thought that they could be incorporated creatively. She photographed a hut from her own homestead, which was still under construction (Fig. 4). The interpretation into design was less literal for the handbag, which might explain its continued popularity. For example, the design incorporated the roof of the hut expressed creatively by using strips of *nwenda* and other materials. The pocket detail of the bag had a zip that resembled the door of a hut. Appliqué fabric in natural colour, held down by buttons, represented the veranda (Fig. 5).

During another Photovoice discussion, a participant discussed a photograph she took of her neighbour wearing traditional Venda attire. She suggested that the detail found on traditional attire, that included rows of stitches and ric-rac, be featured on some of their own Venda-fusion products. All the group members appreciated this idea and it was subsequently incorporated on the hems of aprons and miniskirts through creating brightly coloured decorative bands against the plain colour of the main fabric. The miniskirt became an instant best seller for the younger market, both locally and for visiting university students (Fig. 5 and 6).





**Figure 1 (top, this page):** Participant photographing machine threading sequence. Source: *Authors.* 

Figure 2 (lower left, this page): Baobab tree photographed by the participant. Source: Participant. Used with permission.

Figure 3 (opposite top left): Grass-roof thatched hut photographed by the participant. Source: *Participant. Used with permission.* 

Figure 4 (opposite top centre): Handbag interpretation. Source: Authors.

Figure 5 & 6 (opposite top right and lower image): Skirt with the hem detail conceptualised by the participant. Source: *Authors*.











Figure 7 & 8 (this and opposite page): New branding of cooperative. Source: *Authors* 



The development of Venda-fusion products also relied on oral tradition. The women developed tray-mats and placemats independently, and incorporated tshiVenda phrases through tightly packed embroidery phrases such as *u fhata mudi ndi lufuno* ("taking care of one's home is an expression of love") (Fig. 7). A crochet detail was added around the ends of the tray-mats that picked up the colour of the embroidered text.

As the sewing and design skills of the group improved over time we agreed to expand on the co-design process by branding the products with labels. This happened through collaboration with art students from a Johannesburg-based printmaking centre. The remaining photographs and drawings generated from the "pathway exercise" were given to the art students to inform their print development process. The final design the group chose included some of their own symbols of drums, cattle, the sun, and a baobab tree, with the name of the co-operative silkscreened. To ensure the sustainability of this practice the group took part in a basic silkscreen workshop. They were given silkscreen equipment, including screens with the exposed label design, a squeegee, and some printing ink so that they could use to generate labels as needed by themselves. The group members decided that the labels would only be printed during quiet and rainy seasons. Because they found silk-screening to be time consuming they suggested it be done during quiet periods for business. They also found the copious amounts of water it required to be challenging, especially in the context of water paucity in HaMakuya. Therefore, they suggested silk-screening during rainy seasons could ensure that there is more water that can be used in the process.

At the end of this design experience the participants were asked for their impressions of designing and making Venda-fusion products. Some statements by participants indicate that the level of stakeholder involvement in a co-design process for this context enables sustainable and long-term learning. Statements indicative of this include: "I think in future we will stop going to shops to buy but be able to make everything ourselves," and "With this project there's a change in me because there's an improvement and change compared to what I knew back then and what I know now. This is important because I have learnt a lifetime knowledge something I can use in the future."

Other participants' comments indicated that their involvement also leads to the development of agency and confidence in themselves and empowerment: "When I started I couldn't do a single thing, not even to use a sewing machine but now I sew pencil cases, I can sew a two-piece outfit, I can sew a bag, I am very proud of myself," and "My confidence in sewing and business has improved because before I could only sew mukhasi and nwenda without using the tape measure and only by looking at the customer's body size and guessing it, but now I use a tape measure... This is important to me because some people paid thousands for this opportunity and I paid nothing and on top of that I make money for myself."

The co-operative sparked the interest of many community members, but after a year and a half of its operation many were still unsure about their activities due to a lack of visibility. The group discussed this interest in the community and we decided to officially launch the cooperative through a fashion show where all the products were displayed. This also served as one of the research outcomes of the study. During the planning of the presentation the participants held meetings with a local band to provide music for the day. The group also engaged with the local tribal committee to inform the headmen of different villages about the show. During this meeting we also requested permission from

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the headmen to hang hand-painted banners to advertise the event in their villages. The banners were painted with the help of a visual art student who was on the Arts-based Approaches for Development program as well as a local sign writer. The group used role-play to plan ways to interact with their local, as well as outside, clients. The community supported the launch by both attending the fashion show and purchasing some Venda-fusion products. Some concluding impressions of these activities included a statement by a participant, "We are shown things we would never think of doing like to advertise like this (referring to the banner) we would never think of doing it like this. But people ask when they see them and it helps because it is written in tshiVenda". Another comment by a different participant was, "One woman was looking at this (banner) and she asked about the co-operative and what would be happening. I explained to her and she started telling others about the fashion show."

While the idea of the banner may have come from an outsider, a co-design process features a "coming together" of different ideas, including ideas of the participants as well as the outsiderdesigner. The vibrancy of the banner created with bright colours and drawings sparked interest and created conversation about the co-operative, which we interpret as a significant achievement for the group as it generated broader community interest and visibility. The skills of a local artist and sign writer were included in the collaborative painting to ensure that this affordable local marketing strategy can continue.

#### Conclusion

The Arts-based Approaches for Development program officially ended in 2014, but the *Zwonaka* sewing co-operative continues to exist, run independently by its four members with income generated solely through sales that are shared equally among all members. The group established a business account where profit is saved for further expansion of the co-operative, such as purchasing new machinery and designing new Venda-fusion products. In this article, we claimed that working as part of a co- has existed in Africa for many years as expressed in oral tradition as well as through everyday practices such as co-parenting and communal meetings. Therefore, with Zwonaka being situated in a traditional African context it became sensible to adopt a collaborative and participatory design approach. Inevitably, differences on various levels existed, but acknowledging and working through them became an imperative to mobilise the codesign process of this social context where the agency of the participants resulted in their ability to place themselves at the centre of their own self-making.

Design at a social context has been applied across different disciplines such as furniture design (Munyai and Mugendi 2014), agriculture and food industries (Manzini 2013; Gong et al. 2010), and service design (Gong et al. 2010). These cases demonstrate how design social might embody themes such as collaboration, equity, agency, and sustainability. Likewise, the case of the Zwonaka co-operative we maintain embodies these themes. However, the case contributes how within a co-design process we as designers might grapple with the tension of language and interaction across all involved stakeholders. Using visual and arts-based tools such as Photovoice, photography, and creative design can strengthen partnerships with community stakeholders. The use of arts-based tools might also address the challenge of participatory design projects "continuing long enough through the development and implementation of new products" (Robertson and Simonsen 2012, 5). This case contributes a new perspective to the emerging field of designing with and for society from a fashion design angle. The Zwonaka project succeeded in addressing economic sustainability, empowerment, substantive learning, skills training, and product design and development, which we contend is an instance of "design for social innovation" (Manzini and Rizzo, 2011). Arts-based approaches can be integrated into the iteration of co-design processes that lead to flourishing partnerships and enable full and active participation in design activities, which contributes to design social through both theory and practice.

### Bibliography

Ash, Sarah L., and Patti H. Clayton. "Generating, Deepening, and Documenting Learning: The Power of Critical Reflection in Applied Learning." In *Journal of Applied Learning in Higher Education* 1, no. 1 (2009).

Becker, Lily. *Working in groups.* Cape Town: Oxford University Press Southern Africa, 2005.

Berman, Kim. "Craft enterprise development: Surviving, responding to, and transforming a South African government poverty alleviation programme." *Journal of Arts and Communities* 1 (2009).

Berman, Kim. "Shifting the paradigm: The need for assessment criteria for community-engaged research in the visual arts." *South African Journal for Higher Education*, no. 22 (2008): 3.

Berman, Kim, and Lara Allen. "Deepening students' understanding of democratic citizenship through artsbased approaches to experiential service learning." South African Review of Sociology 43 (2012): 2.

Berman, Kim, Jane Hassinger, Debbie Rasiel and Susan Sellschop. "Women on Purpose:The Resilience and Creativity of the Founding Women of Phumani Paper." Randburg: Desklink Media, 2012.

Boyte, Harry. "Deliberative Democracy, Public Work, and Civic Agency." In *Journal of Public Deliberation*, no. 10 (2014): 1.

Cantor, Nancy and Peter Englot. "Reinventing scholareducators as citizens and public workers." In *Democracy's Education. Public Work, Citizenship, & The Future of Colleges and Universities*. Edited by Harry C. Boyte. Nashville, Tennessee: Vanderbilt University Press, 2014.

Chmela-Jones, Kate. "The ethics of Ubuntu and community participation in design." Paper presented at the 7th International Design Education Forum of Southern Africa (DEFSA), Vaal University of Technology, Johannesburg, September 2-4, 2015), accessed March 22, 2016. Online.

Davies, Rick and Jess Dart. "The 'Most Significant Change' (MSC) technique: A guide to its use". United Kingdom: CARE International, 2005.

Ehn, Pelle. *Work-oriented design of computer artifacts*. Hillsdale: Erlbaum Associates, 1989.

Freire, Paulo. *Pedagogy of the oppressed*. New York: Continuum, 1970.

Gong, Miaosen, Linghao Zhang and Xian Zhang. "Design intervention for socialinnovation: Two service design workshops in Italy and China." In *Applied Mechanics and Materials,* (2010): 37-38. Hagen, Penny and Toni Robertson. "Social Technologies: The Changing Nature of Participation in Design." *Design Issues* 28 (2012): 3.

Hammond, Sue Annis. *The Thin Book of Appreciative Inquiry*. Bend: Thin Book Publishing, 1998.

Krensky, Beth and Seana Lowe Steffen. "Arts-based servicelearning: A state of the field." *Art Education* 61, (2008): 4.

Levine, Peter. "The case for Civic Studies." In *Civic Studies: Approaches to the emerging field," in Bringing Theory to Practice.* Edited by Peter Levine and Karol Edward Solton. Washington, DC: Bringing Theory to Practice, 2014.

Manzini, Ezio. "Design in a changing, connected world." In Strategic Design Research Journal 7 (2014): 2.

Manzini, Ezio. "Making things happen: Social innovation and design." In *Design Issues* 30 (2013): 1.

Manzini, Ezio and Francesca Rizzo. "Small projects/large changes: Participatory design as an open participated process." In *CoDesign* 7 (2011): 3-4, 199-215. doi: 10.1080/15710882.2011.630472

Mchunu, Khaya. "The development of a new sewing cooperative for Tshulu Trust in HaMakuya, Limpopo Province through arts-based training interventions." MTech Fine Art diss; University of Johannesburg, 2013.

Melles, Gavin, Ian de Vere and Vanja Misic. "Socially responsible design: thinking beyond the triple bottom line to socially responsive and sustainable product design." In *CoDesign* 7 (2011): 3-4.

Munyai, Keneilwe and Mugendi M'Rithaa, "Economic, environmental and social benefits of promoting sustainability through embedding traditional techniques of production in modern design." In *Craft Journal* 7 (2014): 1.

Papanek, Victor. *Design for the real world*. New York: Van Nostrand Reinhold, 1984.

Reason, Peter. *Three approaches to participative inquiry.* Edited by K. Denzin & Y. S Lincoln. Thousand Oaks: Sage Publications, 1994.

Reason, Peter and Hilary Bradbury (eds.). Handbook of action research. London: Sage Publications Ltd, 2006.

Robertson, Toni and Jesper Simonsen. "Challenges and Opportunities in Contemporary Participatory Design." In *Design Issues* 28 (2012a): 3.

Simonsen, Jesper and Toni Robertson, (eds.). *Routledge International Handbook of Participatory Design*. London: Routledge, 2012b.

Spinuzzi, Clay. "The Methodology of Participatory Design." In *Technical Communication* 52 (2005): 2.

Steen, Marc. "Tensions in human-centred design." In CoDesign: International Journal of CoCreation in Design and the Arts 7 (2011): 1.

Stringer, Ernest. *Action research*. Thousand Oaks: Sage Publications, 1999.

Thorpe, Adam and Lorraine Gamman. "Design with society: why socially responsive design is good enough." In *CoDesign* 7 (2011): 3-4.

Tshulu Trust, accessed February 11, 2017. Online.

Wang, Caroline and Mary Ann Burris. "Photovoice: concept, methodology, and use for participatory needs assessment." In *Health Education and Behavior* 24 (1997): 3.

Winschiers-Theophilus, Heike, Nicola J. Bidwell and Edwin Blake. "Community consensus: design beyond participation." In *Design Issues* 28 (2012): 3.

### Bio

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