Upgrading the K2 Informal Settlement through Community Collaboration

An Interactive Qualifying Project submitted to the faculty of Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor Science.

The goal of this project was to facilitate a multi-partner, community-driven design and planning process for a community hall in K2, an informal settlement in Khayelitsha, a township in Cape Town, South Africa. This was a first step in empowering community members of K2 to actively participate in the process of upgrading their community. The team participated in a partnership between community members, Informal Settlement Network (ISN) and Community Organisation Resource Centre (CORC) and identified the need for a community hall. We collaborated with our community co-researchers to identify locations for the structure, design, budget, source materials, create a management plan and devise a model to initiate the upgrading process. Our team documented the process in a proposal and drew from our experience to create a guidebook for future upgrading projects.

This is an executive summary of a WPI Cape Town Project Centre project that is fully reported at http://wp.wpi.edu/capetown/projects/p2015/k2/

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From Challenge to opportunity: Informal Settlement Upgrading

In South Africa, townships are known as underdeveloped urban living spaces reserved for non-whites during the apartheid era. These townships were frequently built on the outskirts of major towns and cities, growing steadily in recent years as people became freer to move to seek work and opportunity (City of Cape Town, 2011). Our sponsors, Community Organisation Resource Centre (CORC) and the Informal Settlement Network (ISN), have worked in many townships around Cape Town on projects concerning issues such as land evictions, informal settlement upgrading, basic services, and citizenship. CORC/ISN and our team worked in K2, an informal settlement located in Site B of Khayelitsha, one of Cape Town's largest townships. K2, like other informal settlements in South Africa, presents various challenges to the people that live there such as lack of access roads, high population density, and crime (CORC, 2014). One particularly important challenge at present is that of mobilizing community members to participate in new approaches to reshaping their own community. Instead of displacing residents, CORC/ISN seeks to improve communities using incremental site upgrading by working in conjunction with community members, NGOs and local government.

CORC/ ISN have been working with the K2 community over the past year to build leadership structures and conduct an enumeration report which identified needs such as early childhood development programmes, a community hall, gardening, decentralization of toilets, and partial reblocking. Upon our arrival in late October, the community decided that their most immediate need was for a community hall. Without this structure, community meetings are held outside, no matter the weather. The community's hope was that a hall would encourage more residents to come to meetings, as well as socialize and interact with other community members to help build a sense of community. The hall can also serve as a space for future programmes, such as a computer lab, study area, church, or crèche. The decision to work with community members and CORC/ISN on a community hall was seen as a first step in encouraging K2 residents to actively participate in the process of upgrading their community.

Background:

The upgrading of informal settlements is a complex undertaking involving both social and infrastructural concerns. To explore these issues we will first introduce you to K2., then our research. The rest of our research encompassed participatory action in informal settlements, shack construction and housing challenges in Cape Town, reblocking as an upgrading strategy, and early childhood development and is summarized in the following sections.

K2- A Place of both challenge and opportunity

Established between 1982 and 1985, K2 was self-initiated by residents on government owned land between the Yomelela and Kukhanyile Primary Schools. Upon partnering with CORC and Informal Settlement Network in 2014, community members conducted a census-like enumeration report that found that 423 people lived in K2 in 141 households, recently updated to 265 households. In K2, the entanglement of shacks results in narrow pathways that in many cases allow for only one person to pass through. These limited paths restrict access for emergency vehicles, and are potential areas for violence within the community. Moreover, there are only 87 functional toilets in the entire community. Most community members have a three to four minute walk from their homes to the toilets and taps. Unemployment is also a major challenge, as 30% of the population of K2 is currently unemployed (CORC, 2014). While community members in informal settlements face many hardships, there are many aspects that make the community strong.

Community members are very resourceful, work together, and share what they have to help each other. Many community members are active in either leadership or finding a job, and are working to address issues such as decentralising facilities, children's education and basic communal concerns.

Reblocking: a participatory approach to upgrading

Living in an informal settlement, community members are exposed to many adversities, such as substandard education, unemployment, hunger, poverty, poor health, dangerous environments, and drug and substance abuse (UN, 2015). Coupled with these hardships, the feeling of not having an active voice in one's community can be crippling. Through active participation, community members can become empowered to play a vital role in their own development as well as their community's (UN-Habitat, 2005).

To target the challenges faced by community members, CORC is aiming to partially "reblock" the settlement, a process developed by Shack Dwellers International (SDI) that aims to reconfigure shacks to maximize public space and minimize community disruption (SA SDI, 2013). NGOs such as CORC use reblocking to make informal settlements safer and more hospitable for the community. Although physical upgrades are one goal of reblocking, the community-building aspects of these projects are equally important, encouraging residents to work as a community to further reblocking and develop new initiatives and projects to improve their lives. Past WPI teams have worked with the communities of Flamingo Heights, Mtshini Wam and Monwabisi Park to restructure and reorganize the settlement, fix homes, foster community involvement, and create safe public spaces.

Shacks: the challenges of housing in informal settlements

Shacks are the primary buildings in informal settlements located in Cape Town, and house a large portion of the people in Khayelitsha. Many buildings in these settlements are constructed using wood and corrugated iron or zinc to form the walls and roofs which are held together with whatever is available. Numerous community members choose to build their own shacks from materials they find or buy, and as Mabie, a K2

community leader said; "Everyone has building skills here; you can't live here unless you can build your own house." The city has a grant for R2 billion to move residents into formal housing, but this grant can only provide 16,000 housing units on serviced sites with water and electricity. With a backlog of 500,000 people waiting for housing, the goal of putting everyone into formal housing is a long term one at best, and measures such as reblocking seek to improve the living conditions of the people in informal settlements now instead of waiting years for formal housing (Tuxford, 2015). Multipurpose halls are one early step in the process of community improvement. They create safe public spaces and foster discussion within the community, with the intent to develop future upgrading efforts.

Exploring early childhood development (ECD) in K2

South Africa has a large population of children who are not developing properly in their youngest years of life. Out of the nearly 6.2 million children living in South Africa, approximately 3.8 million live in circumstances of "dire poverty" (Atmore, 2012). Furthermore, stimulation from an early age aids in children's development and future learning skills. ECD can have a higher importance in impoverished areas where children often do not have the opportunity to participate in these programmes. The K2 community members identified a need for advancing ECD programmes in their settlement. Sikhula Sonke, an NGO based in Khayelitsha, started ECD programmes in K2 during October, 2015, intending to further education of both children and parents of the community. This programme, as well as ones like it, can take place in multipurpose public spaces in informal settlements. Moreover, residents can choose to transform public spaces into learning spaces for the children in their community.

Using our preparation research, the team sought to support residents of K2 in taking the lead on upgrading projects, as well as facilitate the progress of ECD, community involvement, and public facility improvement in the K2 area.

Mission, objectives & participatory processes

This project aimed to empower community members of K2 to deeply participate in the process of planning community upgrades, beginning with the design of a community hall.

In this section we discuss key processes we used to meet our objectives. We relied on Shared Action Learning (SAL) and the participatory upgrading strategies of CORC/ISN.

Five main objectives were developed to achieve this goal:

Objective 1: Connect with community members to discuss their ideas and develop plans to initiate the upgrading process

Creating a working team dynamic and building relationships with all partners is an important aspect in any project. By establishing trust, members of the team feel more inclined to voice their opinions and a broader perspective on ideas

will be gained. From the beginning of our project in October, there were 6-8 consistent K2 community members that worked with us on a daily basis.

Our team began by meeting with the community members in K2 and focused first on getting to know one another. Then, we started to plan for the community hall. Its primary use would be community meetings, but it could also be used for other functions such as ECD programmes, church, library, and an Internet café. For that reason, the design included a high quality shack-style structure with a 6 x 2.5 x 2.5 metre shipping container attached. The shipping container provides a secure location for computers and other tools. Our team and K2 community members considered aspects such as feasibility, impact on the community, costs, and time to drive the project forward. We consulted CORC throughout the entire process of design for the hall and they provided vital feedback regarding our designs and our interactions with the community.
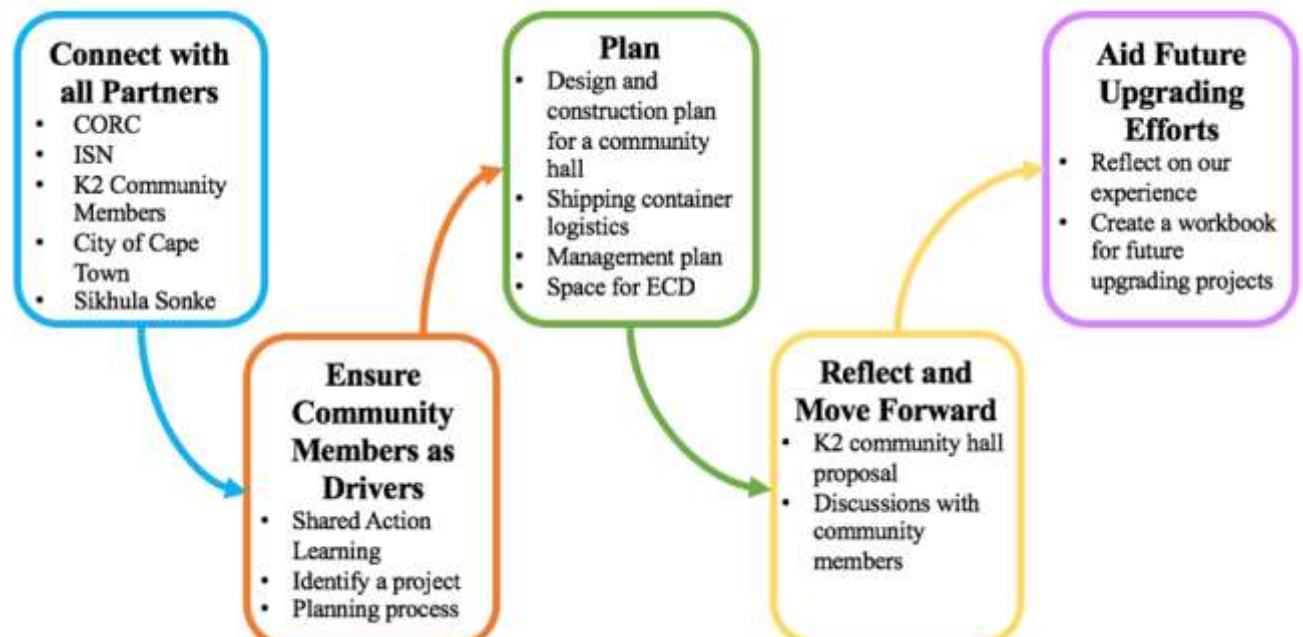
In the beginning it was difficult for us to make a connection with our co-researchers in K2. For a while, we did not feel like a cohesive team. A few weeks into the project, we made another strong effort to know them better through playing games and having fun. After this day, we bonded and finally felt like we were one team.

OBJECTIVE 2: ENSURE COMMUNITY MEMBERS ARE THE MAIN DRIVERS OF THE PROJECT AND RECEIVE SUPPORT FROM MAJOR STAKEHOLDERS USING SHARED ACTION LEARNING

Drawing from past WPI upgrading projects, we learned that the active participation of community members was important to drive the project forward and aim for sustainability, as well as to increase the depth of student learning and experience. To meet this objective, our team used Shared Action Learning (SAL). This aims to help stakeholders engage with each other to accomplish the common goal of sustainable community development through the practice of exchanging ideas and resources. SAL intends to promote growth through reflection and collaboration rather than adhering to a predetermined plan (Jiusto, Hersh, & Taylor, 2014). We learned from CORC's mission that the voice of the community should be represented in both processes and final outcomes. For that reason, our project was driven by community members and their ideas through all its stages.

OBJECTIVE 3: DEVELOP PLANS FOR THE DESIGN OF THE COMMUNITY HALL, A MANAGEMENT PLAN FOR THE HALL, AND A SPACE FOR ECD PROGRAMMES

Our team and the K2 working group divided up into four committees to ensure that all main aspects were considered: design and construction of the hall, development of a management plan, shipping container logistics, and design of a movable playground for early childhood development programmes led by Sikhula Sonke. Below are the steps we used to plan the hall:

Planning for a Community Hall:

1. Identified the need for a community hall and the roles it should serve

2. Identified a location for the structure

3. Produced sketches and a scale model in conjunction with community members

4. Developed a final design, budget, and City Fund application

5. Formed a construction team and made construction plan

Community members were essential in all of the steps mentioned above. We appreciated their input as they would be the ones to use the community hall, and since it was their community, their ideas and decisions were paramount in the planning stages.

Designing and Modelling a Community Hall:

The final design of the community hall was developed through sketching and modelling sessions with community members, allowing them to play an active role throughout the design process, from inception to final plans. The team produced a final design, a bill of materials, and ordered a shipping container. All partners agreed on dividing the building project into two phases: the shipping container and the extended shack style structure.

Advancing the Plans for Phase 1 of the Community Hall:

This phase consisted of the delivery of a 6 metre shipping container to K2. The rest of the structure later will be attached to the shipping container. Our team worked with community members to obtain quotes from different companies, get the site inspected, look at shipping containers for sale, and finalise the logistics for delivery.

OBJECTIVE 4: DISCUSS AND LEAVE A PLAN FOR FUTURE IMPLEMENTATION

Our team developed a detailed proposal for the continuation of the K2 community hall project, which included a list of steps needed to build a community hall. It also included a final computer drawing of the hall, the details of the construction process, a budget, and a bill of materials.

OBJECTIVE 5: CREATE A WORKBOOK TO FACILITATE FUTURE UPGRADING EFFORTS

Our team drew from our experience in K2, past WPI proposals, and CORC processes and mapped out all the steps to implement a building project in an informal settlement. We created a guide applicable to a variety of projects, especially those involving student groups like ours, detailing areas of importance such as community input, design, structure management, and the permitting process for the construction of a building. The workbook also contains printable checklists that clearly detail the major steps in the implementation of a project.

OUTCOMES

In this section we discuss some of the more tangible outcomes of our collaborative efforts in this upgrading project.

Developing a Management Plan for the Community Hall:

Along with the designs for the physical structure of the community hall, our team worked to draft a management plan for the facility. We consulted with community leaders, Mdu and Mabie as well as community member Ficks to understand how they wanted to run the community hall. We identified the need for a management team and came up with potential roles including a caretaker, a financial officer, a maintenance officer, and an outside liaison. We also drafted the initial rules for usage of the hall and developed a tentative schedule.

Building a Moveable Playground:

With the help of K2 community members, our team designed and built a semi-permanent playground made of painted tires bolted together. Its purpose was to provide a simple, safe space for kids to play and participate in early childhood development programmes, while also being movable in light of future plans such as reblocking. K2 community members were essential in sourcing materials locally and reducing total costs, as well as aiding in the planning and construction of the structure.

Painting Taps and Toilets:

During the construction of the tire structure, community members began to paint taps and toilets with the extra paint. They also left their handprints on the walls they painted and encouraged us to do the same. This was an easy and fun way of getting everyone involved and produced an unanticipated tangible improvement that brought colour to the community.

Creating a Flyer for Financial Community Contribution:

CORC has a payment policy when working with communities in informal settlements that requires the community to pay 10 percent of the total cost of the project, while CORC pays the other 90 percent. They want to make sure that the communities show that they are committed to the project and take ownership of the upgrades made. For the container phase of the project, the community needed to collect R1,400, which was a major challenge for the community. To help address this challenge the WPI team, CORC and the community members designed a flyer that could be distributed to help develop excitement and understanding about the project. The K2 team's input and contribution helped us create a flyer that effectively communicated information about the project to the community.

Drafting a Guidebook:

Our team compiled a guidebook, which gives details on the process of designing and implementing a building project in an informal settlement, and insight into working with CORC. Its purpose is not only to give K2 a plan for construction after we leave, but also for CORC and the WPI Project Centre to share with people working on similar projects. The guidebook provides a generic set of steps for upgrading processes in informal settlements, based off the insights we gathered in K2, from passed projects and working with CORC.

Ordering a Shipping Container:

The last week working at CORC the community collected the financial contribution needed to order the shipping container. The container is 6 metres long, with a door in the side, and is due to be delivered in January 2016.

Compiling K2 Community Hall Project Notes:

We created a proposal for CORC to submit to the City Fund Application which included plans for the design, construction and management of the facility. It also included detailed hand and computer drawings that were submitted with the proposal with a detailed construction plan for the implementation phase.

FACILITATING COMMUNITY ENGAGEMENT IN UPGRADING PROCESSES: A REFLECTION

The goal of this project was to empower the members of K2 to more actively participate in upgrading processes. To do this, our collaboration with K2 community members proved paramount. In our team of co-researchers, three of them stood out from the rest: Mabie, Mdu, and Ficks. They proved to be pillars of our project as they were always communicating their ideas and voicing the opinions of the rest of the group and the rest of the community. Mabie stepped up as a community voice. Although comparatively young (30 years old), he is recognized as an emerging leader. The path he travels is not always smooth. Having four children, an unstable housing situation, and insecure employment, Mabie is constantly pulled in many directions. Even with all of the complications of his life, Mabie played an essential role for the majority of the project. In the last three weeks, Mabie found a job, a great success for him. He received much of his advice from the older community leader Mdu, also a

man of many aspects. Balancing his family, his position as a community leader, and his start-up bakery, Mdu certainly has his hands full. Ficks was the creative mind of the team. He encouraged the rest of the team to reflect on important themes such as the location of the community hall, the size of the structure, the management plan, and reduction of costs. As a team, we feel we were able to support these individuals in their ongoing efforts to rally others in their community to get more involved.

Engagement with the community in upgrading informal settlements is important for sustainability and our own learning experience. Without the input and contribution of the K2 residents, whatever change is made would be foreign to the community and therefore might rapidly decline. Designing and executing a plan without community input is a process ISN and CORC avoid, and they instead strive to achieve community upgrades through collaboration with all partners. ISN works by the motto, "nothing for us, without us," which illustrates the need for involvement. Our team has borrowed this idea and incorporated it into our project. Throughout our seven weeks, we learned that engaging

with community members is primarily about listening and sharing our insights when appropriate. We learned that you are never too far ahead in your project to go back to the basics and have some fun with the team, as we did in the third week to strengthen our team. We also collaborated on the planning process for a community hall. Through this process, community members were able to give input and make decisions that affected both their lives and their community.

Empowerment itself is not a concept that can be taught or forced on an individual, but rather can be presented as an opportunity attainable through persistent personal and collective effort. At the inception of our project, we sensed most of our co-researchers were less invested in the project than were the community leaders. Because of this we facilitated new actions aiming to instil confidence and interest in community members. Ideas like building a scale model, field trips to other informal settlements and open discussion making "big paper lists" were powerful and helped provide a sense of perspective to our project. In our time with the community, a budding interest blossomed into sincere activism, leading us to believe a change has been made. We acknowledge the challenging task put upon community leaders and CORC/ISN to build from the momentum created during our time here. However, in working with this small group we saw their drive to make a change in their community and we feel confident they will continue to implement effective changes in K2. We are also hopeful they will construct, maintain, and expand their community hall, and we look forward to seeing the progress they make in the future based on the proposal and plans.

Acknowledgements

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