

Participatory Design: Self-Sustainability in Rural Communities



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Project Overview

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 Location: Oaxaca, Mexico
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About the McBurney Fellowship Program

Through McGill's Institute for Health and Social Policy, the McBurney Fellowship Program supports students in international service programs related to health and social policy in Latin America. McBurney Fellows serve abroad in organizations working to meet the basic needs of local populations. One key aspect of this fellowship is its mandate to make a significant contribution to improving the health and social conditions of poor and marginalized populations through the delivery of concrete and measurable interventions. Students and their mentors identify issues, make connections with local organizations, and develop a strategy for the fellowship. The views expressed in this document are the opinions of the fellow, and do not necessarily reflect the opinions of the IHSP.

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Participatory Design: Self-Sustainability in Rural Communities

Fellowship Rationale and Objectives

Participatory Design is based on community involvement as part of a response to local challenges. This design approach intends to promote self-sustainability in rural communities that have a high percentage of poor and marginalized populations. By involving the community in the design-decision-process, their needs are met and their traditional values are preserved.

As an architecture student and a McBurney Fellow, I was able to be involved in participatory design initiatives in the rural communities of Oaxaca; the state in Mexico known to have the highest index of marginalization in the country. I became an invited guest speaker in participatory design workshops and participated in the building process of a participatory design project in the community of Tezoatlan. Situated in a region with abundant natural resources, Tezoatlan has the potential to develop a successful rural smart-growth plan. Unfortunately new ideas leading towards 'the american dream' have made the community reach one of the highest indexes of out-migration in its state. Little municipal and federal efforts have been seen as an aim to find possible strategies and development plans that could generate new employment and bring needed services into the community to keep its population from leaving. This is where participatory design can contribute and put an input into the community's healthy and sustainable growth. By hosting participatory design workshops, the community calls out their problems and most importantly, they contribute in the solution process. This creates a sense of ownership and value to what they do and how they do it. In this case, we were looking for concerns and solutions to their housing. What needs to be improved in their personal living environment and how could this generate employment in the community? Could their housing be built from local materials (reducing costs and generating local employment), and could it be laid out differently, so as to adapt it to new ways of living that could potentially generate more activity (open spaces, communal spaces, recreational spaces) and more employment (mixed-use housing)?

The objective through a participatory design process is to investigate issues and find solutions collectively; both the community and the 'specialist' working together. Often, the 'specialist' (designer, architect, doctor, teacher, etc.) goes into marginalized communities and provides temporary solutions because they are not fully aware of the internal issues happening in the community. A participatory design process intends to ask the community what their needs and wants are, and provide them with the necessary tools and counseling so that they may be auto-sustainable (long-term solution). As an architecture student, I participated in a participatory design process that gave an architectural solution in the community. The aim was to improve the homes of the community. Part of the process was to immerse myself in the culture and traditions of the community, do a series of interviews, create solutions, and help in the construction of a house.

Background/Context

The traditional methods of construction in the community of Tezoatlan have been disappearing with time. Earth used to be the main construction material and most people would know how to build their own homes made of adobe. These building techniques have been replaced with contemporary construction materials. In the participatory design process, I learned that the community does in fact want to build with earth, but that the technique has been lost, and consequently, new generations have been influenced into buying 'better-modern' materials. I learned that the solution was to bring back traditional building techniques and raise awareness in the community about the positive use of these techniques.

Activities

As part of the participatory design process, I did a series of interviews in the community. The



interviews followed the Libeskind Method. This method asks the interviewee questions of what they like the least and what they like the most about their house. Their answers all linked back to their memories; meaning, generally, that they miss the way their houses used to be built in Tezoatlan. I then participated in the beginning of a construction of a house for Don Amancio, an elder in the community that had been living in bad conditions for a long time. The house was designed based on his memories, but adapted to his current ways of living. The construction was made of adobe bricks (earth), a building technique that was once typical of the region because of its accessibility and its excellent thermal conditions that works in hot-cold climates. More volunteer students and a lot of the community was involved in the building process. We made adobe brick walls and learned how to make them seismic resistant. Don Amancio's house serves as a prototype, where the community learned to build a house based on memories and traditional values.

Challenges and Successes

I learned that it takes a good amount of time and effort to involve the community in a participatory design process. Since people have different needs, it can become difficult

to satisfy everyone. But with a good strategy and positive thinking it can have very good results. In this case, the community of Tezoatlan was very welcoming and willing to work together, which produced a very good result. In the long term, I can see the community gathering together to help build more homes like the one built for Don Amancio.



Questions Raised

A question that was raised was if the community had enjoyed the participatory design process. Many were very thankful because one of the things lacking in the community has been social integration. They thanked us for being the medium to bring a sense of community back.

Training and Mentoring

The first organization, Consultorio de Arquitectura Practica, gave me training about the theory of participatory design processes in architecture. The second organization, Casa Chiname, introduced me (and other volunteers) to the community of Tezoatlan and gave us training on how to build with adobe and natural materials of the region. My professor Robert Mellin was very helpful and positive about the work done while abroad. It was a very well organized team and I had all the resources needed on site.

Training/mentoring from McGill supervisor

My mentor was very positive before, during and after my fellowship. He offered advice and was very interested in the outcomes of the fellowship.

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What did you learn?

This fellowship gave me the opportunity to be part of a project that had an emphasis on social architecture; a subject of great importance that tends to be given less priority in the architecture academic curriculum. While I have always been interested in the subject, I can say that experiencing it in real life has truly motivated me to focus my architecture career on healthy-living and social integrity.

Community Implications and Further Work

What was your contribution to the delivery of health and/or social services for poor or marginalized groups?

My contribution (along the contribution of other volunteers) gave the community the necessary tools for them to 'keep-going.' By teaching them about construction and involving them throughout the design and construction process, we created a long-term impact. In marginalized communities it is specially important to create long-term solutions, so that they can themselves rise up if at one time or another there is no external help.

How might your fellowship make a difference for the people you worked with?

The community greatly benefited from the participatory design process as they had been waiting for a solution to the improvement of their houses for a long time. I believe others outside the community could learn from this method, and replicate it for the well being of their own communities. Other designer, architects, engineers, etc. could also learn from this method and notice that it is important to incorporate community members in the design and building processes to create sustainable and long term solutions.

What would the next steps be to translate your findings into policy action?

The municipal authorities in these marginalized communities can encourage participatory design methods by hosting assemblies where all stakeholders are invited, including the community. An organization that can act as a mediator is also important, to balance out any disputes that may arise.

Program Evaluation

How did this fellowship further your academic or career goals?

Through this Fellowship I was able to further enrich my career goals which lay in the subject of social and humanitarian architecture. Having the chance to be involved in participatory design processes in the field of architecture gave me new tools of knowledge that complemented the academic structure of my studies.

What did you value most about the fellowship?

The interaction with communities was of especially great impact to me. In a participatory design process there is no hierarchy of who is the architect, who is the engineer, who is the authority and who is the client. Everybody contributes and works together. To be able to see

that this alternative method in fact is making a positive impact in the communities was very valuable.

Any advice for future fellows?

Be flexible and ready to adapt to changes.

Any suggestions for how to improve the program?

It could be useful to gather the fellows after the Fellowship so that we may all share our stories.

Was your project part of a larger/ongoing program? If so, what are the next steps? If not, would you recommend this placement/organization to someone else?

Yes, this project was part of a larger ongoing program. Consultorio de Arquitectura Practica is constantly looking for volunteers to participate in participatory design processes in the field of architecture and relevant fields. They mentor students and send them to construction projects throughout Mexico. I would definitely recommend this organization to other students, it was extremely well-organized which made my experience very rich and fruitful.