

## **Eco-Ladrillos para Paz—Bottle-Bricks for Peace**

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*“A world at peace must be one in which environmental, human rights, and economic issues all cohere to foster maximum well-being.” – David P. Barash, Approaches to Peace: A Reader in Peace Studies*

### **Introduction/Background**

Like all major cities in the world, Buenos Aires, Argentina struggles with the problem of how to dispose of all the waste created by its inhabitants, namely 5,000 tons of waste daily. While most of it is sent to landfills, a population of independent trash collectors, or “cartóneros,” makes a living by sorting out and selling all recyclable materials. Cartóneros make at most \$20 from a night of work with little hope of changing their economic status. It is this community that is most impacted by the waste created having to work and live in close proximity to this waste with few safe natural spaces to gather.

Our project aims to create peace by eliminating the three components of structural violence that are present in the cartónero community through a community-building project. Structural violence is defined as the denial of economic opportunity, a sense of fulfillment and self-worth, and access to a healthy natural environment. This community-building initiative will repurpose non-recyclable trash into “bottle-bricks” which will be used to build a safe and natural community space.

### **Project Statement**

This project aims to foster a sense of community by creating a natural communal environment built by and for the cartóneros. Non-recyclables, such as plastic bags, food wrappers, or Styrofoam, will be collected and stuffed into plastic bottles to make “bottle-bricks” which will serve as the foundation of the benches and other structures that will make up the community space. Cob, a sustainable alternative to cement, is made of clay, sand, straw and water, and will be used to bind and cover the bottle bricks. Cob is easy to make and the materials are readily available to cartóneros at almost no cost.

In addition, our project will incorporate sustainable building workshops that will empower community members. Through the course of the bottle-brick and cob workshops, the cartónero community will develop a new marketable skill (sustainable natural building techniques) that will increase their economic opportunity within and beyond the local community. Furthermore, the workshops will challenge cartóneros former conceptions of non-recyclable materials. As Krishni witnessed, cartóneros value themselves in relation to their work with many feeling hopeless and insignificant. By redefining the value of trash, cartóneros redefine themselves; thus, their once debasing work becomes a source of self-respect, pride, and dignity.

### **Existing Connections**

After studying abroad in Buenos Aires in Fall 2011, Krishni developed strong connections in the cartónero community as well as a strong understanding of the Argentine dialect and culture. While in Argentina, Krishni filmed a short documentary about the growing number of cartónero cooperatives. In the development of the film, she established herself in a number of cooperatives including MTE, *el Movimiento de Trabajadores Excluidos* (The Movement of Excluded Workers). MTE is a cooperative that fights for the political, economic, and human rights of over 2000 cartóneros and provides necessary services such as daycare (to prevent children from working as cartóneros), and health services. While working with MTE, Krishni met Sergio Sanchez, the President of the Federation of Latin American Cartóneros. With much resolve, Krishni told Mr. Sanchez about her aspiration to no longer be an observer of cartóneros, but rather an active supporter. Mr. Sanchez gladly received Krishni and expressed the organization’s enthusiasm to take part in such a project. As a result, Krishni and Isabel’s project was developed with and alongside Mr. Sanchez and MTE and will continue as such. Additionally, Krishni has an interest in community development projects and is currently working with the Roosevelt Institute to create a community asset map for a southwest suburb of Chicago.

As an Environmental Science and Cultural Anthropology major, Isabel has a background and interest in sustainability as it relates to local communities. Summer 2011 Isabel worked as an Environmental Intern at Chabot Space & Science Center in Oakland, California where she helped develop a Zero Waste lunch program and educated camp kids on the importance of waste diversion. Here she first learned about bottle-bricking from a fellow intern, led bottle-bricking workshops for the camps, and participated in the making of a cob bench. She has

ever since been in contact with this intern who has built bottle-brick benches in California and Ghana, and who recently founded *Empowerment Works*, a non-profit dedicated to empowering youth and community members to “transform waste into community space.” *Empowerment Works* has provided support and advice in the creation of this project and will continue to do so. Isabel also speaks fluent Spanish from living in Spain for 10 months after graduating high school. In Spain she took classes at the University of Salamanca and taught English to children. Currently Isabel is Education Chair for SEED (Students for Ecological and Environmental Development) at Northwestern. Through this connection Krishni and Isabel will be able to perfect their bottle-brick bench making skills before leaving for Argentina by partnering with SEED in the spring for the creation of a bottle-brick bench at Northwestern.

## **Timeline**

**Phase 1 (January-June) Preparation** In the months leading up to the project, Krishni and Isabel will keep in contact with Mr. Sanchez to ensure that necessary materials are being collected, and to finalize site location and scheduling. Krishni and Isabel have already joined a natural building meet-up group in Chicago in order to gain more natural building experience throughout the months leading up to the project. In the spring Krishni and Isabel, in partnership with SEED, plan to engage the Northwestern community in a bottle-brick bench project for additional experience.

**Phase 2 (Weeks 1 – 4) Community Engagement** Upon arrival Krishni and Isabel will travel to various sites such as “ollas populares” (soup kitchens), and other cooperatives affiliated with MTE in order to establish a basis of trust and mutual respect in the community. With the ongoing support of Mr. Sanchez and Krishni’s prior experience, this can be done relatively quickly. Building plans for the community space will be created and finalized in ongoing community meetings where the community will discuss and define their future community space. Those that are interested will be given the opportunity to become peer educators by leading bottle-bricking and cob-making workshops with the assistance of Krishni and Isabel as needed. This will promote future sustainability by ensuring that community members are equipped to carry on natural building techniques.

**Bottle-Bricking Workshops** These workshops will focus on the first step of the building process, creating bottle-bricks. Workshops will be offered several times a week as decided by the community. Classes will teach the fundamentals of bottle-bricking and introduce cartoneros to the benefits and numerous applications of bottle-brick building. A meal will be served as an added incentive at these workshops. There will be one all day “work party” where cartoneros can come at their convenience to help make bottle-bricks for the final project. For this day, if needed, lost work hours will be compensated. In addition, Krishni and Isabel will teach educational youth classes at the MTE daycare. With these youth and adult classes, Krishni and Isabel aim to engage the entire community.

**Cob Workshops** The second series of workshops will teach how to make and use cob as an inexpensive and sustainable alternative to cement. As with the bottle-bricking workshops, the cob workshops will be offered several times a week with additional youth classes.

**Phase 3 (Weeks 4 – 8) Building** These weeks will be dedicated to building the community space. This will require the help of as many community members as possible. Building days will be open to community members of all ages as the simplicity of the building techniques makes building a fun, easy, and social event. Food will be served on building days. Peer educators from the community will lead workshops as more individuals express interest. Krishni and Isabel will gradually pass on more responsibilities to community members in an effort to encourage as much community leadership as possible. Once the project is complete, Krishni and Isabel will work with the community to organize a celebratory event (with food and live music) to exemplify the space as a place of social gathering.

**After Summer 2012** – Krishni and Isabel will stay in contact via email and phone with Mr. Sanchez and community members to keep track of the status of the community space and to offer support in any future sustainable building endeavors. We will encourage expansion of sustainable building to projects of a larger scale (such as schools and houses) as well as expansion into communities outside of Buenos Aires. Our hope is that this community space minimizes structural violence by repurposing non-recyclable trash, one of the least valued materials in modern society, into something constructive for a community. This not only gives the cartoneros a new perspective on the potential value of the materials they work with everyday, but also a new perspective on the value of their livelihoods, and their own potential as contributing members of society.