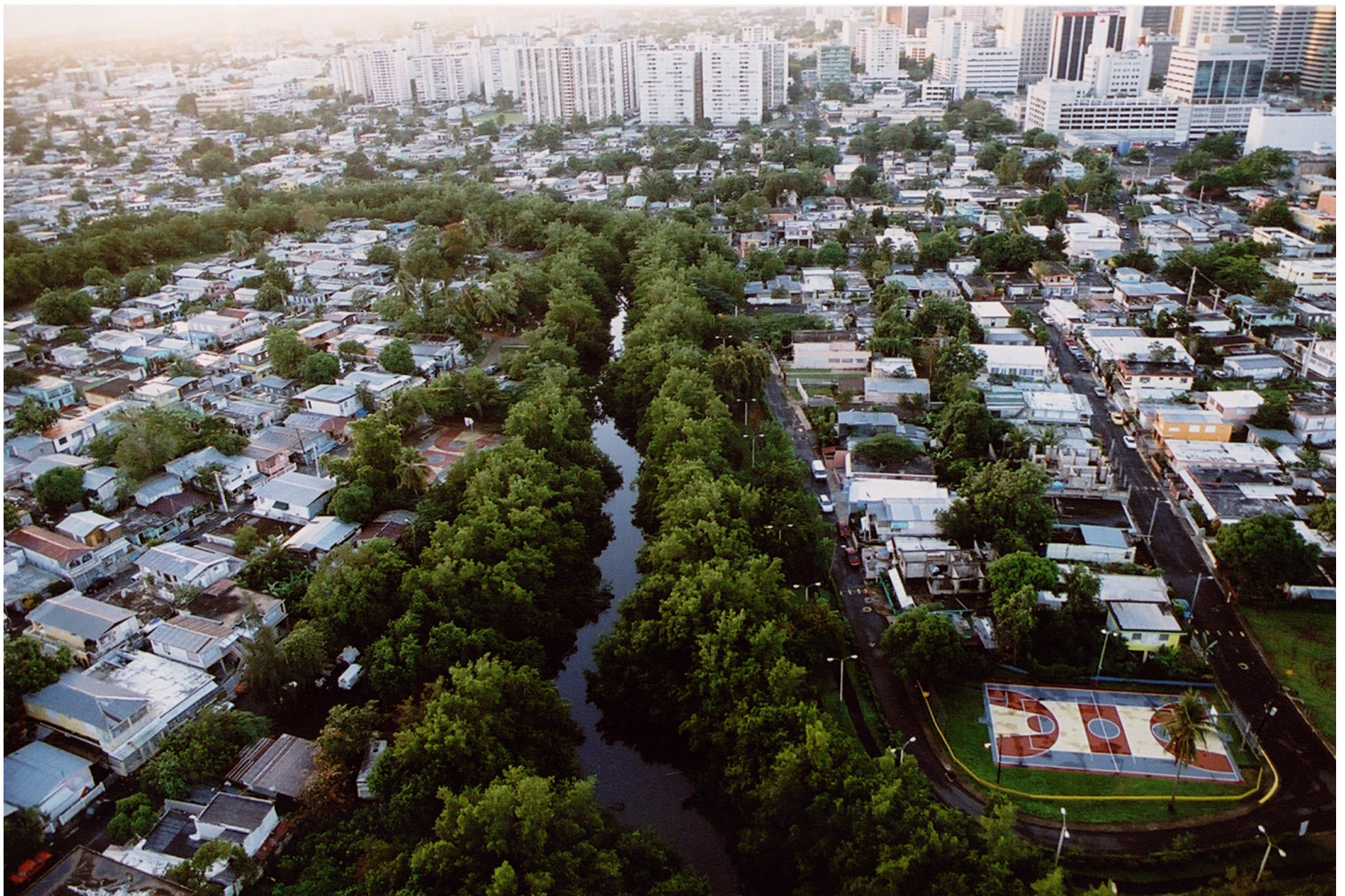


11.308 Ecological Urbanism 2021  
Mora Orensanz, MCP '21  
April 16<sup>th</sup>

**ENLACE Project**  
*San Juan, Puerto Rico*  
*2004 – Present*



## **Abstract**

The Caño Martín Peña is a channel of water running through the center of San Juan, Puerto Rico. Along this caño, eight communities are home to around 2000 families. The first residents settled here in the mid 1900's and today most of the residents have informal tenure over their houses. Over the years, the channel of water has been narrowed, filled and polluted, going from being a flowing channel that once connected two bodies of water to a stagnant stream. The caño is highly polluted, mostly because the sewage system from the communities is discharged directly into the caño. With every heavy rain, the caño floods and water reaches the homes of over 70% of residents. The plans to recover the caño, initiated by the city and federal government in the late 90's, increased the risk of green gentrification for the community. This triggered community mobilization which led to the reformulation of the recovery plan, which went from being a strictly infrastructure plan with a real estate focus to an integral development plan with a strong social component. The engagement process led to designing a Fideicomiso de la Tierra (Community Land Trust), the G8 (Community group which brings together all eight communities), and the ENLACE corporation, a semi-independent public entity which serves as articulator between the community and the public sector. Today, these three pillars remain actively in place, focusing on the CLT and socio-economic development as well as the recovery of the environment with green infrastructure.

## **Key words**

Latin America, Housing, Community Land Trust, Green Infrastructure, Informality, Socio-economic development, Green Gentrification.

## **Philosophy/Mission/Values**

As the community defines it: "The ENLACE Project of the Caño Martín Peña is the response of the communities organized through the G-8, Inc. in alliance with the private sector and the government to recover the environmental integrity of the caño and the health and safety of its residents, at the same time that it promotes an inclusive and democratic city, with quality public spaces, and opportunities to generate wealth for the community and the country."

The ENLACE project was initiated to by the community with key values to protect the residents: Environmental justice, Participation, Housing rights, Socio economic development, and Permanence. As informal settlements are often the most exposed and vulnerable to environmental threats, environmental justice is a key value of this project. The project works to rehabilitate the channel and provide infrastructure with the least possible number of resident relocations as possible. Relocations are done within the community and investment is channeled to the community to strengthen the local economy. Aside from restoring the caño and the nearly-lost mangroves, and protecting the long-term affordability of residents, the

project works towards “reinforcing solidarity networks, democratizing sustainable planning and garnering political power” (Algoed and Hernandez Torrales, 2019).

Through the planning action reflection process that the community went through to design the CLT, they defended three main goals: a united, safe and prosperous community. The following image is a flag made by the G8 for a community mobilization claiming that the dredging with participation equals justice. “Dredging with Participation = Justice!”



*Source: Facebook ENLACE*

### **Size of Community & Scale and geographic focus**

The community is located in the heart of San Juan, “in one of the city's most ecologically and geographically valuable, yet environmentally vulnerable areas.” (Algoed and Hernandez Torrales, 2019). It is located next to the financial district, one of the fanciest financial and residential neighborhoods. The 3.5 mile-long degraded caño runs through San Juan, connecting the Bahía de San Juan with the Laguna San Jose.

The eight communities, highlighted below in orange, occupy approximately 78 hectares and are home to approximately 2000 low-income families. More than 50% of the families live below the poverty line and the unemployment rate is high.



Source: Facebook ENLACE

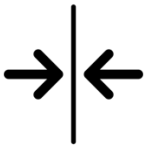
## Timeline

The first residents of the caño settled around the 1930's, as the following image shows. By this time, the population of San Juan was growing as people living in rural areas moved to the city because of the modern industrialization.



*Source: United States Environmental Protection Agency – From 1936*

Homes started to be built along the edges of the caño, in close proximity with the water. These families established informally on ecologically vulnerable public lands. Slowly, the width of the water body decreased and became blocked, getting narrow enough for people to be able to walk across from one edge to the other. In addition, the precarious drainage system from the homes discharged directly into the water channel, contributing greatly to its high pollution. Consequently, every time heavy rain falls, which occurs often, over 70% of the community reports that water reaches their home. This represents, not only a flooding risk, but a serious health hazard.



Narrow Channel



Polluted Waters



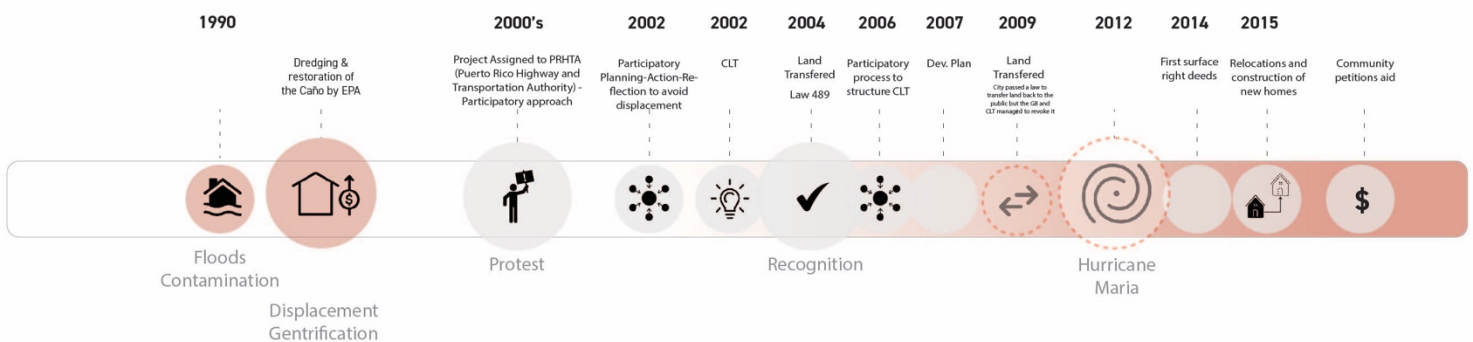
Flooded Homes



Precarious Homes



Source: ENLACE report 2014



In the late 90's, EPA designed the San Juan Estuary Comprehensive Conservation Managements Plan, which was centered on the dredging of the caño and provision of infrastructure, as well as new private development for the area. In the early 2000's the Government of Puerto Rico understood this plan as a strategic project and handed it to the Highway and Transportation Authority (PRHTA). With pressure from the community, the PRHTA took a different approach that involved working with the communities and grassroots organizations in designing the new development plan through a planning, action and reflection process.

After more than 700 community meetings, the initial plan evolved into the project known as Proyecto ENLACE del Cano Martin Pena. As a way to avoid speculation and consequent gentrification, the result from this participatory process was to establish a Community Land Trust (CLT), a tool to collectively own the land and through which families have surface rights which allow them to own their own house. This is very important for this community because, as seen in other cases of land regularization in informal settlements which are located in privileged locations, individual land titles expose the residents to the speculative market.

The resulting plan was a Comprehensive Development and Land Use Plan for the Cano Martin Pena Special Planning District

**PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO PARA EL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA**

PREPARADO POR: AUTORIDAD DE CARRETERAS Y TRANSPORTACIÓN  
DEPARTAMENTO DE TRANSPORTACIÓN Y OBRAS PÚBLICAS

HUJA # 1 DE 3

**ESTADO LIBRE ASOCIADO DE PUERTO RICO**  
OFICINA DEL GOBERNADOR  
JUNTA DE PLANIFICACIÓN

**PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO PARA EL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA**

**ADOPCIÓN**

A TÍTULO DE LAS DISPOSICIONES DE LA LEY 75 DEL 24 DE JUNIO DE 1976, SEGUN ENMIENDADA, PARA LA PRESERVA-  
CIÓN DEL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA, EL PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO PARA EL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA.

**APROBACIÓN**

LA FOMALEA, PUERTO RICO

A TÍTULO DE LAS DISPOSICIONES DE LA LEY 75 DEL 24 DE JUNIO DE 1976, SEGUN ENMIENDADA, PARA LA PRESERVA-  
CIÓN DEL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA, EL PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO PARA EL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA.

**LEYENDA**

- Comercial
- Instalaciones Recreativas
- Industrial/Residencial
- Institucional existente
- Institucional proyectado
- Planta de Agua
- Parks y Parques Públicos
- Parqueamiento Regional
- Residencial
- Residencial/Comercial
- Vivienda Asistida para Inmigrantes
- Grupos de Distrito

In 2004, soon after the plan had been finalized, and with much pressure from the community, a new legislation, Law 489, enacted by the Government of Puerto Rico, recognized the legitimacy of the CLT and G8, and established the ENLACE corporation. This is an independent entity from the public sector in charge of implementing the District Plan with resources from the government. The public land on which the community is settled was then transferred to the ENLACE corporation which later transferred it to the Fideicomiso de la Tierra (CLT).

In 2017, Hurricane Maria hit the caño, leaving more than 75 families homeless and 1200 homes without a roof (Algoed and Hernandez, 2019). The existing organizational and social network allowed the ENLACE and the community to respond quickly and facilitate the recovery. Financing the recovery for the caño posed a challenge as the Action Plan presented by the Federal US government lays out strategies that "promote displacement of vulnerable communities, even where on-site risk mitigation is feasible". This required the community to be extremely involved in the recovery process to find alternative solutions that would avoid relocations outside of the community. Additionally, residents were asked to prove property ownership to be eligible for repair grant from FEMA. Eventually, FEMA was forced to review its criteria.

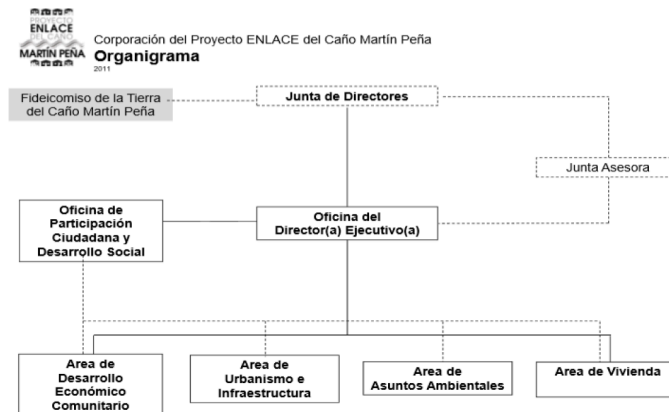
Today, the community has paved roads, electricity and running water but most homes lack storm water drainage and sewage system as it still flows directly into the channel.

## Organization & Operation



As aforementioned, ENLACE is a semi-independent public entity in charge of developing the District Plan. Interestingly, its board of directors was designed by the community as a way to ensure continuity despite political fluctuations. The ENLACE corporation has four departments: the Area of Community Economic Development, the Area of Urbanism and Infrastructure, the Area of Environmental Issues, and the Area of Housing, all shown in the image below.

## Organigrama Organizacional



(2011). Corporación de Proyecto ENLACE del Caño Martín Peña, Organigrama.

The G8 is a non-profit organization that consists of leaders of 12 grassroots organizations from the eight communities. As the G8 selects candidates from these neighborhoods for the ENLACE project board, the community has direct access to public funding and decision making.

The Fideicomiso de la Tierra (CLT) is a nonprofit organization governed by a majority of community members. As well as in the case of the ENLACE board, the board of the CLT was designed by the community and is comprised of eleven trustees, six of which are residents appointed by the G8, and two are selected by the board. The other three trustees are representatives of the state and local governments – one from the board of director of ENLACE, one appointed by the governor and one appointed by the mayor of San Juan. The CLT issues a notary deed that guarantees each resident with surface rights to the lot of land they live on. Additionally, it recognizes the formal ownership of the house for the family. Families can inherit, sell or mortgage their house, however, the CLT is entitled to the “first right of refusal”.

These three pillars, and overall community, have engaged with a wide range of stakeholders, ranging from universities, institutions, local organizations and international alliances.

## Programs

ENLCAE spurs the creation of several resident-led micro businesses and, when possible, contracts them. Other strategies aim to promote critical thought and build capacity within the community, including adult literacy, education, environmental awareness, health promotion, financial education, conflict management and violence prevention programs. There are ongoing activities, workshops and events for members of the community and over 10000 residents have participated in more than 30 social development programs. “A variety of tools

are used to engage residents of all ages as active agents of change who know and exercise their rights” (Transforming a City, 2014)

Three of the most successful resident-led microbusinesses are: BiciCano, which consists of touring the community on bike, Martin Pena Recicla, an organization that recycles garbage from the community, and EcoTurismo, which offers tours on a boat in the nearby lagoons.



Source: Images collected from the Facebook of the different microbusinesses

The ENLACE corporation promotes programs aimed at building a culture of conservation and respect for the Cano. It engages all ages, but mostly focuses on youth programs. A few examples are:

- Patrulleros del Ambiente (Guardians of the environment) and Estudiantes Dispuestos a la Restauracion del Ambiente (Students Compromised with Environmental Restoration): students collaborate on school community gardens, participate in workshops about reuse and recycling, learn about monitoring the water quality of the caño, etc.
- Huertos del Cano (Community Gardens of the Cano): leverages the vacant lots as community gardens.

-Heroes del caño (Heroes of the caño): Young students are trained to take care and monitor the condition of the environment.



*Reunión del grupo Héroes del Caño en la Escuela Damas Antonini en Santo Domingo*



• Patria Robles Community Garden

caño 3.7

## **Financing and Resources**

The CLT aims to be largely self-funding once fully operational. Meanwhile, it receives subsidies from the public and private sector for each specific project, in addition to donations. By 2015, the CLT was receiving US\$140000 per year through renting its properties and was aiming to increase this to US\$500000.

The way the CLT works internally is: whenever a family sells their house, profit will go in part to the family and in part to the CLT. This considers that part of the increased value is due to the investment of the family on the house and part from the work of ENLACE and CLT in the area.

Given that Puerto Rico has been going through an extreme economic crisis, most financing comes from the federal government of the USA. Some of the main programs are: TIGER (Transportation Investment Generating Economic Recovery, through DOT), the US Department of Housing and Urban Development (HUD), and the Environmental protection Agency (EPA). A 4,5% of the funding for year 2020 was through donations and non-federal funds.

After the City tried to r-transfer the land away from the community, the CLT registered the land as a private entity with juridical independence to avoid the public sector changing the ownership status. This way, the public sector would have to compensate the CLT, making is less likely to happen.

## **Assessment**

The main assessment report is done every three years by the ENLACE corporation. This includes a detailed description of the progress made in each project of the District Plan, the resources used and the next steps. It also includes any changes made in the organizational structure, and achievements.

Parallely, the community carries out its own assessment of the project through the G8 and publishes the "result" in the community newspaper titled "Raices" (Roots)

One of the main challenges for the community is keeping track of land and housing availability. In this sense, a Land Bank could be of great help for strategic decision making. On the other hand, the fact that many homes have informal tenure and a tangled histories of selling and buying, makes the process of becoming a member of the CLT slower and challenging.



## Lessons for West Philadelphia

This project is an example of how a Community Land Trust can do much more than protect low-income families from gentrification. It also shows how there is much more needed than the isolated CLT instrument to have a successful community building and acceptance process. The development of the three pillars is key, covering ARTICULATION with the public sector, ENGAGEMENT within the community and PROTECTION with the CLT.

Some key highlights from this project are:

- Building trust with the authorities takes time.
- “Dialogue among communities led to greater understanding of common problems, rather than differences”. “We now Speak the same language” (Community member cited in Algoed and Hernandez, 2019).
- Democratization of planning and neighborhoods development is a key goal.
- The community land trust not only protected the permanence on site of residents, but ensures access to credits and to funds, for example the CDBG-DR recovery funds.

- The CLT is crucial in controlling the distribution of funds and resources prioritizing the socio economic development of residents and relocations within the community.
- The CLT has given the residents political power to confront and influence the state.
- The CLT stimulates investment, both monetary and emotional.
- The CLT promotes long term affordability.
- ENLACE corporation insures long-term stability despite political fluctuations because the board is partly integrated by community members.
- Social programs are a fundamental component of this project. There is tremendous value in working with multiple generations in building awareness, respect and skills to shape and value their own environment.
- The CLT has to be of interest to the community.
- Families living along the Cano are relocated into new or existent vacant housing units.



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