

# Reconsidering the Tijuana River Canal: Three Scenarios for Action

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**Abstract:** The Tijuana River Watershed is trans-border river basin flowing across the westerly portion of the US-Mexico border to the Pacific Ocean. This cross border region, a portal through which over 50 million people passes each year and the busiest land-border crossing in the world, is a place of contradiction and contested interests, a place known for extreme poverty, crime and violence as well as intense artistic and cultural production. At the same time, Tijuana is a social laboratory that has emerged out of the intense clash of cultures and the immense flow of people and ideas across the border.

**Keywords:** river basin, migrations, contested areas, poverty, cultural production.

## *The Brief History of a Contested Place*

The Tijuana River Watershed is a 120 mile long trans-border river basin flowing across the westerly portion of the US-Mexico border to the Pacific Ocean. Along its route, the river passes through the borderlands of San Ysidro-Tijuana. This cross border region, a portal through which over 50 million people passes each year and the busiest land-border crossing in the world, is a place of contradiction and contested interests, a place known for extreme poverty, crime and violence as well as intense artistic and cultural production. According to the National Council for the Evaluation of Social Development Policy (CONEVAL), up to 50% of Tijuana's population earns less than the wellbeing income, 15% lack basic housing services, 10% lack basic living spaces, and nearly 20% lack adequate access to food.<sup>2</sup> At the same

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2. As reported in "Informe de Pobreza en Mexico 2012" published by Consejo Nacional de Evaluacion de la Politica de Desarratio Social (CONEVAL). See or <http://www.coneval.gob.mx> further information.



*Fig. 1. Aerial view of the Tijuana River Canal. Source: Worldview (www.worldviewcities.org)*

time, Tijuana is a social laboratory that has emerged out of the intense clash of cultures and the immense flow of people and ideas across the border.

Historically, extreme socio-political circumstances are catalytic, generating creativity as a form of resistance and critique. The theme of the border in artistic production in Tijuana—who will ‘define this territory and from where’ – has evolved for recent emerging artists into a larger question of the relationship between the city and the border, where the citizens are taking back their city and its spaces.<sup>3</sup> Reclaiming the forgotten spaces in the city serves as an act of resistance and a counter to the spaces of consumption generated from the tourist industry. Tourism has been a constant in the city’s economy since the 1920’s and then more deliberately in the 60’s with the PRONAF program (National Borders Program) intended to make Mexican cities such as Tijuana more “attractive” to the U.S. Even with rise of the maquiladora (assembly manufacturing) industry, tourism remains a major part of the city’s revenue. Along with an economic emphasis on tourism come a commodification of place and a loss of cultural and historical

3. See <http://www.spatialagency.net> and various projects by Architect Teddy Cruz.

identity, typical for border towns. But the rising trend of appropriating the margins of the city, reprogramming the derelict and ignored urban spaces is changing the city's narrative.

The Tijuana river channel is a physical manifestation of both the difficulties and the opportunities of the city. Historically, the development of the city development respected the lowlands of the Tijuana River floodplain. Concern for flood control coupled with the need for urban expansion due to a rapidly increasing population-the city grew from 65,000 in 1950 to 349,000 in 1975 – set in motion the transformation of the river that began in the 20's with upstream damming and culminating with the complete channelization of the river in the 70's. The result is a 300 foot wide concrete canal that divides the city. Since the completion of this large scale engineering project, the newly created urban land – known as Zona del Rio (River Zone) – has been incorporated into the urban fabric with development that turned its back to the canal and is characterized by North American style shopping malls and surface parking lots catering to tourists. «(After the Second World War) Many... immigrants settled illegally in different parts of the city, but one of the most problematic settlement grew along the banks of the Tijuana River: cartolandia or carton-land. The relocation of people from this area became a twenty-year endeavor for city officials that ended with a violent act in 1979, which would launch the city of Tijuana into modernity, a malevolent plan concocted by the federal government in Mexico City. During that year, heavy rains came down upon the city and the Rodriguez Dam, located on the city's east side, had a significant amount of reserve that according to state officials needed to be released and, without previous notice, the water swept away the cardboard shacks. The Tijuana River Canal, a deep cut dividing the city in two, a voie triomphale of concrete and sewage, memorializes this event today... The Tijuana River Canal proved to be a monological solution to control yearly flooding and informal development along its edge. The concrete canal violently divided the urban fabric in two areas and created a no-man's land in its interior that today even police don't dare to enter».<sup>4</sup>

4. PERALTA 2012.

Our research is set within this marginalized site of illegality – an urban, social and ecological disaster – and began with speculations on how this place might simultaneously serve as an opportunity for the citizens of Tijuana. What actions might be proposed in order to begin a dialogue about the identity of the city, its relationship to the river, and the productive potential of the river to respond to the social and economic disparities in Tijuana? What follows are three scenarios of action. In each case, while recognizing the natural capital associated with environmental improvements, the agency of intervention went beyond employing the river as aesthetic infrastructure.

Our approach insisted upon reinstating the river as a site of production and as an impetus for spatial practices that respond to the inequity, poverty and severe environmental problems of the region. Large-scale control of waterways through ‘hard’ engineering was common in cities throughout the world during the 19<sup>th</sup> and 20<sup>th</sup> centuries. But attitudes about the sustainability of this approach began shifting beginning in the late 20<sup>th</sup> century. Today, 21<sup>st</sup> century river channel management often includes undoing the legacy of previous engineering methodologies. Although complete restoration of the river basin is thought to be ideal, in the context of Tijuana, as in other urban river cities, the restricted space due to encroachment of urban development upon the former lowlands makes this highly impractical as a consideration. Instead, we propose viable alternatives that could have just as significant an impact on the urban morphology and quality of life in the city but that are practical enough to be considered.

Ultimately, our goal was to generate ideas via projects on the river that would permit the Tijuana community to work and achieve true social and economic transformation.

### *Culinary Coyotes: Food and the City*

About 18% of Baja California’s poor are people with limited capacities and an income insufficient to sustain the basic needs of their families. Approximately 10% of the remaining poor live in food poverty, which means those people cannot even afford to buy food worthy of

contributing to their good nutrition or that of their families.<sup>5</sup> “Culinary Coyotes” is a proposal to address economic and nutritional needs of the city through small-scale cooperative agriculture and culinary education accomplished by reinstating the riparian field as a productive landscape with dwellings and community spaces.

This proposal builds upon a rapidly growing Tijuana trend of “Reverse Coyotes” where large groups of people travel south for the rich local cuisine, from food trucks to high-end restaurant culture. The intervention outlined here explicitly taps into an underutilized culturally expressive industry permitting locals to engage in an economic enterprise in order to create cultural identity and community action. Food moves beyond a means of pure sustenance to empower citizens and positive nutritional habits and cultivation skills are developed.



*Fig. 2. and 3. Culinary Coyotes: Food and the City. Michael Garcia and Nicole Paul*

In order to repurpose the Tijuana River Canal into a riparian garden, the concrete banks are profiled into cultivation terraces to en-

5. PEDRAZA 2013.

hance the ecological value of the flood plain. The landscape tolerates high water and includes agricultural areas and a submergible ecological park. The area serves as a retention space where flood surge is slowed in the lowlands and overtime self-organizing ecosystems are created with isolated patches of water all year round helping to filter the river improving water and air quality.

Eventually, diverse biotopes and habitat for fish and various flora and fauna would be reintroduced into the city. At the same time, this scenario proposes reconfiguring the relationship between the city and the river by weaving the urban structure with the riparian field. Construction at ground level adjacent to the waterway is floodable and is dedicated to various community activities. Elevated above are modest scaled dwelling units with exterior community kitchens. This proposal takes an integrative approach to the urban waterway, reconsidering the channelized river and floodplain as a multi-functioning urban space for the city, an economic resource for the community, and an environmental opportunity for the region.



*Fig. 4. Culinary Coyotes: Food and the City. Michael Garcia and Nicole Paul*

*EcoComunidad: Waste and the City*

In Tijuana, millions of gallons of wastewater are pumped into the city's sewage system each day. In most cases this water is not treated and pumped directly into an already overwhelmingly polluted Tijuana River Basin. In terms of conservation, the current system of 'treating' wastewater is highly ineffective and wasteful of one of our most precious resources. However, the topography of Tijuana is rugged and the hills, valleys, and mesas throughout make centralized wastewater treatment plants impractical and expensive. EcoComunidad is a proposal to address waste and the city by implementing the EcoParque program along the Tijuana River Canal. The EcoParque project began in 1986 when El Colegio de la Frontera Norte (Colef) launched the study of decentralized treatment and reuse of wastewater for urban irrigation. Using the wastewater generated by 10,000 people, about 900,000 gallons a day, Ecoparque irrigates what was once a dry hillside and transformed it into a lush landscape in a community situated in the outskirts of Tijuana. The project has increased land value, provided large quantities of green space to the public, and has brought both development and wildlife to the area.<sup>6</sup>

Our second scenario proposes to transform the Tijuana River Canal by discovering a new use for its bed and banks with waste as our medium of adaptation. As EcoParques begin to populate the dry hillsides, EcoComunidades will begin to line the Tijuana River, resulting in multiple local water treatment facilities that both ease the burden of the Tijuana sewage system and conserves water that would otherwise be wasted. The concept of decentralization is not just in the treatment of wastewater, but in decision making as well. These urban communities, not governmental agencies, are permitted to decide for themselves what they need or how to develop their community.<sup>7</sup>

Three key components of EcoComunidad include the surround-

6. See program full description at <http://www.colef.mx/ecoparque>.

7 Oscar Romo collaborated with COLEF on the development of Ecoparque. He has lectured extensively on the importance of decentralized community activities. Oscar Romo, Ph.D., is a former United Nations diplomat and now the watershed coordinator at the Tijuana River National Estuarine Research Reserve and lecturer at the UCSD Urban Studies and Planning Program. He is also founder of Alter Terra, see <http://alterterra.org> for more information.

ing Residential Housing, a community that will collectively see to the success of the facility; Temporary Housing placed within the development and intended to create a place for refugees, who are frequently dropped near the San Ysidro border and many of which currently live in the concrete riverbed; and the Education Center, dispersed throughout the site as workshop classrooms, an elevated promenade, teaching pods, and a public park. In addition, an open air market and small leasable shops are added on the city side of the development. By providing public green space and education opportunities, this single community will influence further development by increasing awareness of public issues such as water scarcity as well as greatly increasing land value. The community is embedded in the infrastructure and can engage in various economic models such as producing nonedible crops and selling compost.

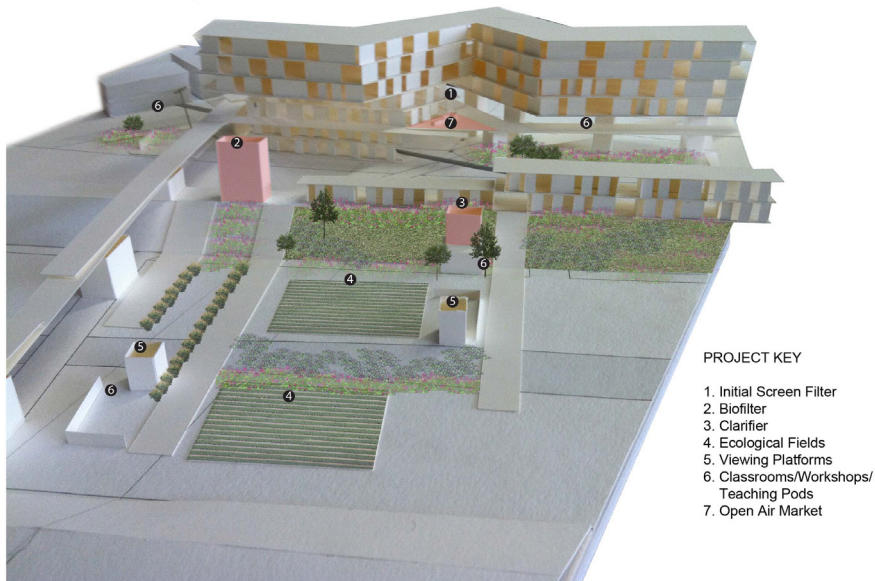


Fig. 5. *EcoComunidad: Waste and the City*. Tim O'Neill

Implementing riverside development on select sites will increase the value of this land and transform an undesirable area typically populated by illegal and informal settlements into a productive territory in the urban fabric. Adding a green scape created by using





### *Reclaiming Tijuana: Art and the City*

Limited resources generate invention. In Tijuana, extreme economic needs have produced a resourceful spirit – recycling, reusing, reappropriation – using what you have along with a bit of creativity and ingenuity to make due. Over the past decade, violence coupled with the global economic crisis as well as new border entry requirements for North Americans traveling to Mexico all contributed to a slowing of tourism into Tijuana. As a result, the shops and spaces catering to tourism emptied. Local artists saw this as an opportunity to inhabit these abandoned and underutilized properties for artistic production. As more and more derelict zones in the city began to be occupied, the city began to transform, through discourse and festival, returning to its local culture, reclaiming its spaces as its own. A renewed attitude about domestic concerns and the quality of life for the local residents has emerged out of this new cultural economy. The underlying concern is ‘to educate, humanize and transcend’, to make inequities known through open shared spaces in the city where its citizens can clarify solutions about change.

Our third scenario “Reclaiming Tijuana” is a proposal to build upon this momentum by reclaiming the river canal for cultural entrepreneurship, linking art and culture to the city’s future. El Chaparral, the pedestrian bridge that links the border crossing to downtown Tijuana, is reprogrammed as an open air market with artist’s workshops and a large forum space. In this proposal, we have modeled our approach to spatial appropriation after other re-occupations in the city and very few modifications are made to the existing concrete canal. Instead of resisting or restricting inhabitation of the riverbed, we encourage people to claim this space for their own authorized and unauthorized uses. Elements that tolerate water level fluctuations are introduced in the riverbed and highlight the river dynamics. Submergible platforms, embankment terraces and steps are introduced into the embankments and the pedestrian pathway from the border crossing to the city is rerouted to create a promenade along the canal across the river and into downtown.



*Fig. 8-9 Reclaiming Tijuana: Art and the City. Samantha Spaniak*

### *Conclusion*

The ideas put forth here are intended as agents for change in the city. We view the Tijuana River Canal as an untapped resource to address economic inequalities, ecological devastation and social disparities through practical and innovative means. Our insistence that each approach have an explicitly performative dimension is inspired by the resourceful character of the city itself. In each of the projects presented, we have built upon the creativity and community action already underway, in support of the new emerging paradigm for Tijuana.

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