information sheet (to be submitted as the cover sheet for all proposals)

NAME: John Locke
Program: MSAAD

Email address: pre-graduation: jhl2142@columbia.edu // post-graduation: john.h.locke@gmail.com

Signature:

Title of proposal: Fast, Cheap & Out of Control (without Architects); or Why Infrastructure Won’t Save Us

A complete proposal includes:

this cover sheet
one paragraph summary of the proposal
illustrated description of the proposed research project, including specific objectives (4-5 pages maximum)
short bibliography
budget
any supporting documentation you feel is relevant (e.g. list of contacts)

THE DEADLINE FOR SUBMISSION OF PROPOSALS IS MONDAY, APRIL 13 AT 5 PM.
THIS IS A STRICT DEADLINE.

Proposals should be submitted to Leslie Bailey in Dean Wigley’s Office, 402 Avery Hall.
structure won’t save us fast, cheap, and out of control (without archi-
The bureaucratic, welfare-state housing policy approaches from the mid-twentieth century have unquestionably failed, but what comes next? The urbanization of the developing world has lent this question a desperate sense of urgency, and while central planners slowly test solutions, it is squatters—lacking developer or nation-state support—who have created a living laboratory of multiple failures and successes. Where the experiments become truly interesting is along the nearly 2,000-mile-length border of Mexico and the United States—the most asymmetrical border in the world. A nomadic, aterritorial space that is neither American nor Mexican, symbiotic in nature, and, while arbitrarily physically split, maintains a cultural porosity. Here is where the aspirations of a whole class of people wash up against an increasingly inward-looking first world barrier. What are the delicate political systems of control that allow this ecosystem to experience unparalleled growth? How does the built environment respond to these systems? What hidden systems can be extracted from a firsthand look at vast informal settlements, which in turn provide a framework for precise applications in architecture, technology and urbanism? Most importantly, this proposal is not merely about the collection of research data, but rather the formulation of a constructed argument regarding alternative future potentials of the built environment based on uncovered models existing within the border region.

The research will be completed through three mutually supportive phases. The first involves an intensive, first-hand documentation of the urban development in the two largest transnational border areas in the Western Hemisphere: El Paso/Juárez and San Diego/Tijuana. The research will be supported by an investigative journalist, a political science professor and the Juárez Department of Urban Planning. Secondly, a self-guided road trip will be taken through the southwestern desert to document historically how, without architects, ecologically sustainable structures have survived through the ages. This notion will be further developed by exploring responses ranging from artists Donald Judd and Robert Smithson to the self-sustaining Anasazi cliff dwellings at Mesa Verde and the U.S. missile testing ground at White Sands, New Mexico. Lastly, guided by a local Mexico City Architect, I will explore the “Tijuana-ification” of Latin America, with a study of the successes and failures of implementing an informal urban growth model, free of infrastructural support, into a metro area of 22 million people.
Proposed Research Project

“Drawn by a high standard of living, Ciudad Juárez is one of the few cities in the world to experience consistent growth rates above 5 percent.”

The Federal Reserve Bank of Dallas

The sites where two countries meet, where 60 million people annually cross, are paradoxically not the sites most representative of their respective nations. They are sites of security and barriers—a fence. In the case of the US-Mexico border, the rapid population growth has not only yielded an unmatched density at the demarcating line, but has generated a series of overlapping economic and functional circulation realities between cities that circumvent the traditional gatekeeper role of boundaries. Culture, family, a never-ending supply of labor pass back and forth in an asymmetrical relationship of twin cities, one twin richer, the other bigger.

Tijuana is not Mexico and El Paso is not America. They are more complex, global nodes. Yet El Paso has implemented a standard planning system seen throughout the United States of suburban growth and in turn faced constriction and stalled economic potential. This same ersatz vision of Western prosperity exists within the neatly planted rows of palm trees and subdivisions that ring the maquiladora factories in Juárez and Tijuana. Yet there is a darkly reflected simultaneous city concurrently existing, one that grows spontaneously, free from imprisoning infrastructure or a centrally planned guiding hand into places. Journalist Robert Neuwirth describes as where “squatters mix more concrete than any developer. They lay more brick than any government. They have created a huge hidden economy. . . . [They] are the largest builders of housing in the world—and they are creating the cities of tomorrow.” Squatters lead the cities’ growth, while the infrastructure of roads, power and water follow behind. In keeping with this encouraging trend, the UN even describes the Third World’s informal settlements as “slums of hope.”

Tijuana and Ciudad Juárez grow at an annual rate of 6.3% and 5.3%, respectively. Most of this growth is attributed to immigration from within Latin America. It is estimated that over 33% of the cities’ populations originated from outside the state of Chihuahua. Of those that emigrate from Tijuana and Juárez, 95% go north, to the United States. This has created a nomadic class of people, with aspirations for a better life elsewhere. The Mexican side of the fence is less a home, and more of a strategy for escape, which in turn creates an American side ‘under siege,’ - San Diego builds increasingly higher walls and more gated communities, while groups like the Minuteman emerge.

More a model of science fiction than Mexican history, the Mexican side can provide an example of growth in the new century. Precise architectural and urban models can be extracted from this situation of multiple post-urban, planned and accidental competing realities all in immediate proximity. However, it should be mentioned that this isn’t a proposal to romanticize what are in essence unsanitary habitats lacking light, clean water and electricity. Self-conscious adoption of some of these principles leads to a quick collapse as was seen in the superficially similar commune movements in California, including Morningstar Ranch and the Whiz-Bang Quick City of the late 1960s. Nor is it within the scope of this proposal to recommend fixes for social or political problems in border cities. Rather this is an attempt to uncover the possibilities embedded in the hidden territorial systems created in this unique political and economic environment to explore other building material technology, architectural and urban applications that can be extracted and applied in multiple configurations. Mexico City will serve as a final destination to test the success or failure of the ‘Tijuana-ification’ of Latin America.
“Between 1995 and 2000, exports of assembled products in Mexico tripled, and the rate of the industry’s growth amounted to about one new factory per day.”

Stoddard, Elwyn R. Maquila: Assembly Plants in Northern Mexico

New economic models driven by sustainable principles of recycling and creativity through necessity, as well as, advances in building material technology will drive the future growth of the southwest desert region. When former Juárez mayor Gustavo Elizando states that the only way “the cities in this region can make it, is to forget that a line and a river exist here,” he is referring to an economic co-dependence. But as El Paso and Juárez also share a common underground aquifer he could just as well be referring to a resource co-dependence. El Paso and Ciudad Juárez comprise the largest bi-national urban area in the world, an area that is estimated to run out of potable water by 2025. This creates a complicated interdependent set of regulations as competing national agencies struggle for control. Juárez, which controls a smaller portion of the aquifer, nevertheless continues to outpace El Paso in areas of population growth and urban sprawl. Informal settlements drive the unplanned growth of Juárez, however, once the settlements exist, the city planning agency must follow with water lines.

Informal settlements grow as NAFTA and the maquiladora industry continue to need fresh bodies to fill thousands of low-skill jobs. With the implementation of NAFTA in 1994, the multibillion dollar maquiladora industry exploded. Companies taking advantage of the low cost of labor in Mexico could assemble products that originated in America, then export the final product duty-free back into the U.S. (Romero, HyperBorder) Maquiladoras seek the border region for its proximity to the United States and provide a major tax base for the Mexican government. American corporations depend on the maquiladoras to keep their production costs low. The slums exist in an extraterritorial state, shunned, but necessary for state actors on both sides of the border in a mutually beneficial trade relationship.

The slums also feed as a way station for cheap labor into the United States and feed into Americans’ dependence on cheap products. Thriving economies in California and Illinois have been credited in part to the contribution of undocumented immigrants to many industries, particularly the agricultural landscape and its easy access to points of global shipping and transit lanes.

The desert serves as the mythical frontier of America, a testing ground where the extreme is possible and radical ideas can be played out. The harsh climate holds keys to sustainable building material and technology strategies. Part of this proposal seeks to study other successful architectural responses (sans architects) to the desert through the study of works by Donald Judd at Marfa and Robert Smithson’s Spiral Jetty in the Utah Great Salt Lake. Indigenous settlements such as the cliff dwellings at Mesa Verde and Gila National Park will also be studied in relation to improvised and recycled use of building material strategies in Tijuana and Juárez.
“Since 1984, Tijuana has been building on lands that were set aside for ecological conservation.”

Rosalina Perez Ceron, Office for Civil Protection, El Colef.

By 2050, racial and ethnic minorities in the U.S. will outnumber non-Hispanic whites; one out of every four will be Hispanic. (Romero, HyperBorder) With population increase comes greater political influence. Today it is largely up to the local governments and organizations along the border region to resolve persistent urban problems in the area. Except in matters of national security, Mexico City and Washington, D.C., are remote and disengaged from the workings of the border. The border region has frequently been defined as a “third space,” with competing government agencies, and NGO’s occupation of this new territory. How is architectural space defined within this system?

Political scientist Dr. Gregory Rocha will prove invaluable for navigating this space. Familiar with local politics and NGOs on both sides of the border, he will become a reference for the procedures for how the political and economic systems control the specifics of the built architectural and urban environment. In what Teddy Cruz sees as a more democratic and flexible urban development system, once a squatter settlement is completed, it is immune from demolition by Mexican law, and only later does the government provide roads, water and electricity. But in Tijuana, which grows over two hectares per day, and Juárez which adds 100,000 to its population yearly, certain areas have to be prioritized over others. Does added infrastructure provide increased legibility and means for growth or are more self-sustaining areas healthier? Who decides when and where the roads will be located? How do settlements follow the natural topology of the landscape? Border cities in Mexico have the lowest unemployment as well as the lowest level of infrastructural investment. How does a city experience unprecedented growth without infrastructure? How can inhabitants of shantytowns build settlements without money? And lastly, free of the false comfort of California gated suburbs or architecturally approved designs, in the shadow of two of the largest designed security structures in the world—the border crossing stations and borderland wall—how do communities prosper without control?
“The city of Tijuana has been described in multiple ways, most of the time linked to its black myth. Postmodern laboratory, everyone’s home, and drive-by city...To all these descriptions we should add one more: ‘Tijuana is the armpit of Latin America.’

Jaime Chaidez Bonilla, “I sobaco de Gael,” in the supplement Identidad, El Mexicana, Mexico City via This is Tijuana!

With the aid of local architect Demian Rodriguez, the final phase of the proposal calls for using Mexico City as a testing ground to assess the relative success or failure of border urban principles on a national capital of 22 million.

The sprawling metropolis is the second largest city in the world, where 40% of people live below the poverty line. Compared with over 70% in Tijuana, 40% of the economy in Mexico City is informal. Pollution, homelessness and crime exist separate from gated communities where the rich commute via helicopter, while a third of the population live in shantytowns. Mexico City has been on the verge of a tipping point for ten years, halfheartedly trying to implement an infrastructural system modeled after Tokyo or New York with greater vertical density. On the other hand, another model based on regenerating public space by combating crime, pollution and traffic struggles forward.

Homogenous gated communities continue to grow, but Mexico City is also seeing the emergence of mixed-use urban developments. Informal settlements are growing within and around the borders of middle class developments causing each to thrive through labor and goods trade, a relationship built on a global view of connectivity encompassing complex economic and political systems. Firsthand research will be done to compare how these settlements relate to comparable developments along the US-Mexico border.

In other words, this proposal takes the position that Mexico City is a relevant incubator for ideas that have been imported from the border region to the center. Both in the physical environment of no infrastructure support and fast moving slums from Tijuana, as well as the gated communities and suburban developments from San Diego and Orange County. In William Gibson’s words, is the future here, but not evenly distributed? Does this work?
“Visitors to border cities such as Tijuana, Ciudad Juárez, and Nuevo Laredo should remain alert and be aware of their surroundings at all times.”
U.S. State Department, http://travel.state.gov/mexico.html

I would be remiss to not point out that this proposal is an autobiography of sorts. Having been born in Los Angeles, lived for a time outside of San Diego, moved from Albuquerque to El Paso, spent five years at the University of Texas at Austin followed by four years working in Los Angeles, I’m seeking the opportunity to revisit some of these sites with a critical architect’s eye. However, I’m not arguing for a trip of nostalgia; far from it. Merely the hope that my current—albeit shallow—firsthand knowledge can prove a valuable starting point for a deeper understanding of the issues at hand while allowing me to quickly become immersed in the local rhythms of place by bypassing many of the barriers that lack of cultural knowledge can erect.

With that in mind, regarding issues of safety, I recall Juárez as a place with porous border stations and friendly citizens. However, post-9/11 and after an unceasing wave of murders, the security situation has devolved significantly. How this has affected the systems of control within the ecosystem of the border is of course what I hope to explore. But to study the situation up close and personal will require travel to areas of questionable stability. Should the proposal be accepted, journalist Diana Washington Valdez has suggested that the consulate would be available to provide an escort as well as guides from the Juárez planning department should the situation necessitate such measures.
Contacts

El Paso / Ciudad Juarez (confirmed)

**Diana Washington Valdez**
Ms. Washington Valdez is an investigative journalist for the *El Paso Times* and has extensively covered social and political issues in the EP/CJ region. She is also the author of two books regarding border issues: *The Killing Fields: Harvest of Women* and *Dirty War*. She is an important resource for getting up to speed on the systemic control structures of border politics, the transnational narcotics trade, and the factory worker-driven maquiladora system.

dwvaldez@aol.com
http://dianawashingtonvaldez.blogspot.com/

Dr. Gregory Rocha
Dr. Rocha is a professor of political science at the University of Texas at El Paso and specializes in the political implications that the growth of the border region holds for the rest of the United States and Mexico in terms of demographic shifts toward organized, centralized Hispanic political power. He is also plugged into the local political groups on both sides of the border and can help with introductions.

grocha@utep.edu

San Diego / Tijuana (unconfirmed as of 4/12/09)

**Teddy Cruz**
Mr. Cruz is a writer, teacher and architect who has extensively studied Tijuana and northern Baja. His work is beyond inspiring and I hope to arrange a meeting with him.

http://www.politicalequator.org
http://estudioteddycruz.com/

**R.E. Somol**
Mr. Somol is a design theorist whose writings were influential on this proposal. His urban design research regarding informal development around Tijuana would become a jumping-off point. Presently awaiting confirmation that he would be available to look over some of my final research materials.

Ciudad Mexico (confirmed)

**Demian Rodriguez**
Mr. Rodriguez is an architect and former colleague presently working in Mexico City. He has experience designing fortified upper-middle class homes in gated sections of Mexico City and can help with navigating a city of 22 million people. He will also prove an invaluable resource for understanding the role of the architect in an urban environment desperately seeking balance between creation, maintenance and destruction.
ar_chi_tect@yahoo.com
**Itinerary**

*Day 01*
- Flight New York, NY (JFK) to Midland, TX (MAF)
- Drive to Marfa, Texas
- Meet with Angela Koester, Director of Administration and External Affairs. Tour Donald Judd Installation. (218 miles)

*Day 02*
- Drive Marfa, Texas to El Paso, Texas
- Meet with journalist and author Diana Washington Valdez, tour downtown El Paso. (194 miles)

*Day 03*
- Meeting with Dr. Gregory Rocha at UT El Paso
- Conduct research at UTEP, contact Juarez Planning Department

*Day 04*
- Walk across border at downtown crossing station into Juarez
- Meet with US consul in Juarez and Planning Department, firsthand tour of Juarez

*Day 05*
- Drive across Santa Theresa station, tour informal housing developments.
<table>
<thead>
<tr>
<th>Day 06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive El Paso, TX to White Sands, NM</td>
</tr>
<tr>
<td>Tour White Sands Missile Range and National Park</td>
</tr>
<tr>
<td>Drive White Sands, NM to Gila National Monument</td>
</tr>
<tr>
<td>Tour Cliff Dwelling at Gila National Park</td>
</tr>
<tr>
<td>Drive Gila National Park to Very Large Array</td>
</tr>
<tr>
<td>Tour Very Large Array, a radio astronomy observatory located on the Plains of San Augustin</td>
</tr>
<tr>
<td>Drive Very Large Array to Mesa Verde State Park</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tour Ansazi pueblos and cliff dwellings at Mesa Verde State Park</td>
</tr>
<tr>
<td>Drive Mesa Verde State Park to Monument Valley</td>
</tr>
<tr>
<td>Drive Monument Valley to Golden Spike National Historic Site</td>
</tr>
<tr>
<td>Tour Robert Smithson’s Spiral Jetty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tour Robert Smithson’s Spiral Jetty</td>
</tr>
<tr>
<td>Drive Golden Spike National Historic Site to Death Valley National Park</td>
</tr>
<tr>
<td>Camp at Death Valley National Park</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore Zabriskie Point, Dante’s Peak, Badwater in Death Valley</td>
</tr>
<tr>
<td>Drive Death Valley to San Diego, via Yuma</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet with and conduct research with Teddy Cruz (not yet confirmed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tour San Diego, Document border crossing at San Ysidro</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive into Tijuana from Tecate Station, meet with US consul, tour Tijuana</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue documentation of informal developments in the Tijuana region</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight San Diego, CA (SAN) to Mexico City, Distrito Federal, Mexico (MEX)</td>
</tr>
<tr>
<td>Meet with Demian Rodriguez, conduct research at his office</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue research into city planning at architecture office</td>
</tr>
<tr>
<td>Tour Mexico City</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet with other local architects</td>
</tr>
<tr>
<td>Tour gated communities</td>
</tr>
<tr>
<td>Tour informal shantytowns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue documentation of slum developments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight Mexico City, Distrito Federal, Mexico (MEX) to New York, NY (JFK)</td>
</tr>
</tbody>
</table>
## Budget

### Ground Transportation

- **Rental Car (two weeks, unlimited mileage)**: $875
- **Gas**
  - (approx. 2700 miles @ 23 mpg = 118 gallons)
  - (118 gallons @ $2.20 per gallon = $260)

### Air Transportation

- **Flight 1** _NYC to MIDland, TX_ $215
- **Flight 2** _SANdiego to MEXico City_ $186
- **Flight 3** _MEXico City to NYC_ $250

### Accommodations

- **1 night in Marfa, Texas** $130
- **3 nights in El Paso, Texas** $180
- **1 night in Juarez, Mexico** $55
- **1 night in Durango, Colorado** $90
- **1 night in Brigham City, Utah** $70
- **2 nights in San Diego, California** $200
- **2 nights in Tijuana, Mexico** $110
- **4 nights in Mexico City, Mexico** $315

### Food

- **17 days @ $30 per day** $510

### TOTAL

- **$3446**

### TOTAL REQUESTED

- **$2500**
Bibliography

Border


Desert


Slums


Film

The Border, Tony Richardson (director), David Freeman and Walon Green (screenplay), 1982
Cidade de Deus, Fernando Meirelles (director), Bráulio Mantovani (screenplay), 2002.
Lone Star, John Sayles (director and screenplay), 1996.
Roma, Federico Fellini (director), Federico Fellini and Bernardino Zapponi (screenplay), 1972.
Stalker, Andrei Tarkovsky (director), Boris and Arkady Strugatsky (screenplay), 1979.
The Searchers, John Ford (director), Frank S. Nugent (screenplay), 1956.
Traffic, Steven Soderbergh (director), Stephen Gaghan (screenplay), 2000.
Y Tu Mama Tambien, Alfonso Cuarón (director), Alfonso and Carlos Cuarón (screenplay), 2001.
Zabriskie Point, Michelangelo Antonioni (director and screenplay), 1970.

Architecture / Infrastructure (general)

Ant Farm Group, Truckstop Network Place Mat, 1971