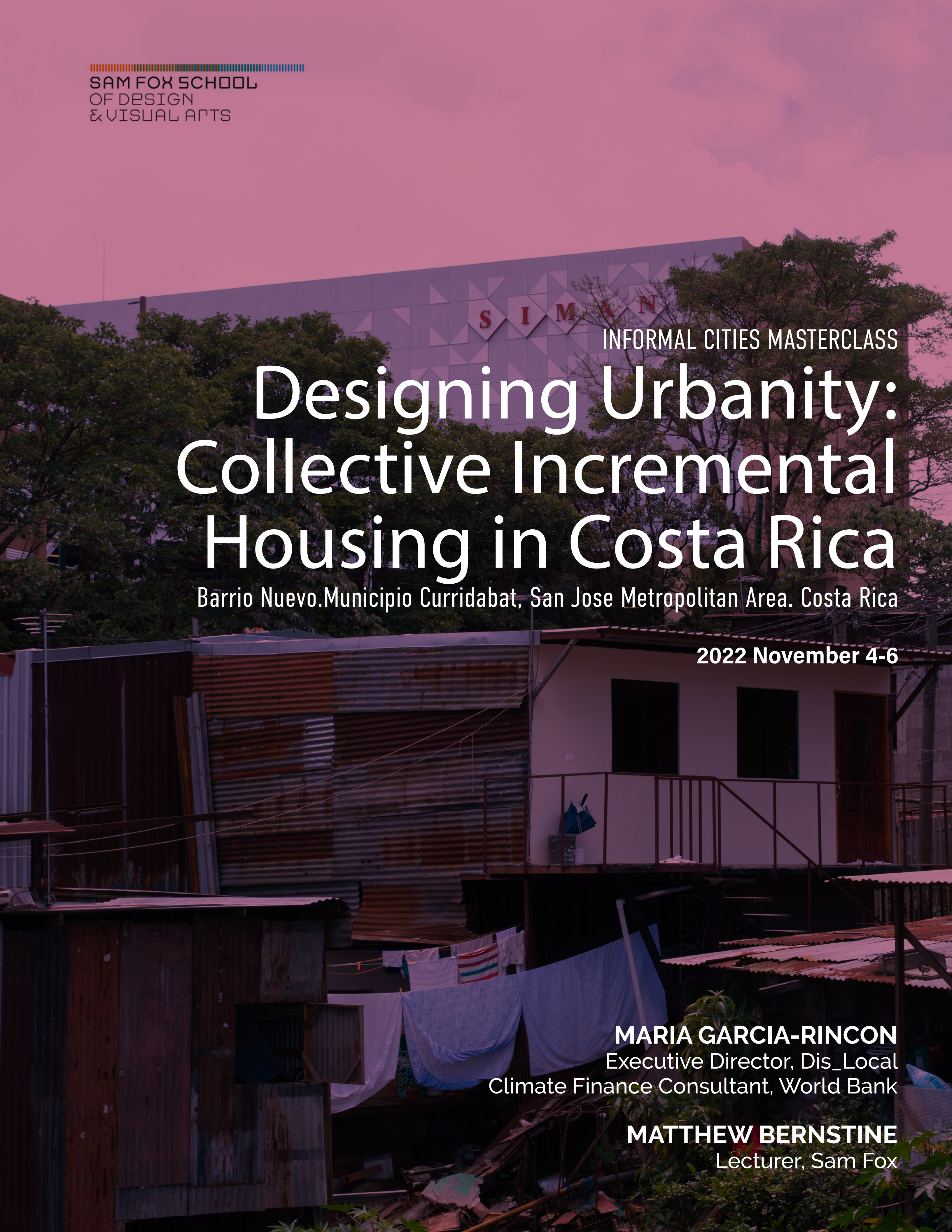

SAM FOX SCHOOL
OF DESIGN
& VISUAL ARTS

INFORMAL CITIES MASTERCLASS

Designing Urbanity: Collective Incremental Housing in Costa Rica

Barrio Nuevo.Municipio Curridabat, San Jose Metropolitan Area. Costa Rica

2022 November 4-6

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Climate Finance Consultant, World Bank

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Lecturer, Sam Fox

This workshop is sponsored and supported by the following groups.

SAM FOX SCHOOL OF DESIGN & VISUAL ARTS

CENTER FOR THE HUMANITIES

THE DIVIDED CITY

Washington University in St. Louis

Cover Photo: Barrio Nuevo. Courtesy of Dis_Local

DESIGNING URBANITY:
Collective Incremental Housing in Costa Rica

INFORMAL CITIES MASTERCLASS: (A49-562H)

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DISLOCAL

Thriving Structures and sustainability on the Global Periphery

WORKSHOP OVERVIEW

The design process and evolution of a project is an important and critical component to furthering ones design skills. And in the case of Informality, change is both quick and drastic as much as it is slow and steady.

In this three-day workshop, students will develop conceptual physical designs for Barrio Nuevo, an informal settlement in Municipal Curridabat in the San Jose Metropolitan Area of the Costa Rican capital city.

Informed by Dis_Local's field-research, students will create scenarios using physical model that consider incremental growth, gendered spaces and investigate the ways in which design intersects with housing finance.

The workshop will lead students through a design process to develop design strategies and programmatic elements that provide greater gender inclusivity opportunities and the capacity to incrementally grow.

Students will be tasked to think deeply and critically about their role as a designer within the broad context of "informality". The final product of the workshop will be a physical example of how Barrio Nuevo can grow. Each student group will develop their own hypotheses, groundings, and interpretations, and descriptive prose to communicate their findings.

The workshop is led by Maria Beatriz Garcia-Rincon and Matthew Bernstine.

WORKSHOP BRIEF

Municipio Curridabat is among the wealthiest municipalities in the San Jose Metropolitan area of the Costa Rican capital. While it ranks highest in terms of municipal funds, it has informal settlements within its political boundaries, creating a dichotomy between municipal opportunity to invest in improving the Barrios, and its inability to strengthen the barrio's homes due to the fact that the housing units are established on private land.

The three-day workshop will offer students an interesting perspective into the world of Centro American informality through the lens of Barrio Nuevo. The assignment will focus on two interconnected themes: gender and housing finance and how these two interconnected realities can develop within its material and built reality. The reality, therefore, rests on the idea of informal as a space that is in-between and flexible. Once land tenure is not secure, tenants of the land and the construction of their self-made homes become the object of temporary building modalities. With more than 80% of the male population working as an Uber driver as their primary form of employment and almost all women acting as stay-at-home mothers, the micro-lending system can work with outside-the-box creative thinking.

This type of building solutions has a need of retrofitted infrastructure for service delivery systems (water, electricity, waste management), while the unit itself can serve multiple functions, including: to provide Nicaraguan migrants rentals for short-term (6 months) and to provide shelter for the infant population, children, the elderly in enough of a solid manner as health-policy would expect, but still flexible enough to avoid losing resources (human and financial capital) from being one-day overturned by being evacuated from the private land.

The United Nations and its global agenda are slowly creeping into the policies, decisions, and local budgets. As local governments strive to accomplish the

Sustainable Development Goals set forth in a global agenda, commercial finance is finding ways to work with State-Owned Enterprises to receive beneficial financing terms for certain types of projects.

One of the projects it hopes to accomplish is within the real-estate sector. While informality is not considered to fall under this industry, banks are seeking ways to offer females financing for their homes. National banks are at the same time, pairing up with international financing fundraising to leverage good terms and low interest rates for female banking customers. The latter is a niche market that is on purpose being developed to motivate women in under-served communities to maintain their hard-earned money in an account in a commercial bank. In some cases, women are receiving capacity building to become financially literate. This literacy rate is advancing quickly and allowing women to maintain their accounts on their mobile phones through bank's applications or through fintechs. Little by little, financing conglomerates are aligning to facilitate financing to the poorest sectors of countries. In these sectors, females have found that by accessing finance they can also invest in remaking their homes.

Offering financing to women in informal sectors meant specifically to rebuild their homes, can become a paradigm shift within informality and specifically within the built reality of informal settlements. It offers, women leverage in accessing land titles, home registration titles and access to potential home improvements that can easily translate to creating their own home office or building into the home their informal business that through out time can become a registered MSME within this framework of financing mechanism.

Keeping this in mind and reviewing the literature and case studies about this concept, we ask the students of this workshop to re-imagine and design a house that incrementally develops with micro financing options through out time.

In our three-day workshop, we ask the students to compare current housing in Costa Rica and categorize these into an organized system of understanding and analyze them.

- How are materials for homes budgeted?
- How will a female-driven design influence a unit typology?
- How does land tenure affect housing development and material strategies?

We will then speculate how incremental financing can offer multiple design typologies in a female financed MSME-mortgage loans and micro-construction loans.

- How can women leverage decision-making through microloans projects to enforce new models in design outputs?
- What does the built reality of these homes say about the families and social norms themselves?
- How would it change and transform when and if it is female driven with female MSME loans as well as commercial mini mortgage loans?

Workshop Requirements

WORKSHOP PHOTO DOCUMENTATION

Each group will collectively document their process and final product. Documentation of the work produced by each group is necessary for achieving course credit.

Process Documentation: Document your progress throughout the workshop, particularly after each Design Challenge. Take photos, scan images, if drawn, and upload your artifacts and images to your group's box folder.

Weekend Deliverable: Models serve as the main design and representational tool. A final model, including: people, animals, plants, signage, cars and indicative material textures is required for each group. More details on the content, extents, and requirements will be discussed at length during the workshop.

Upload your group's final work, including: photos of your final model, scans of sketches and drawings used in the production of the final work and your final narrative.

Documents should be uploaded to the team's respective BOX folder by Friday November 18th.

WORKSHOP PREP MATERIALS:
Prep materials to assist the development of your work have been gathered and placed on box for your reference. Photos, digital maps, and community engagement packets are available for use.

PARTICIPANT REQUIREMENTS

Model Materials

The workshop is focused on the creation of the city through the act of making…and so model making, hand drawings, and sketches will be the primary methods of illustrating ideas. Students are free to use digital tools but the main task at hand will be the construction of a model. A list of materials for the workshop is noted below. Each student is expected to be prepared on Friday afternoon with these materials

** The materials for the workshop are not explicitly limited to these materials, students may bring in other materials as they see fit. Worktables will be provided.

- Corrugated cardboard - [36" x 48"]
- Wooden Dowels - [1/8" and 1/4"]
- Basswood or Balsa sheets - [30 x 1m]
- Black Thread
- Cutting Boards
- Glue
- Old Magazines
- Model building supplies [cutting mat, x-actos, box-cutter, straight edge, etc…]

DELIVERABLES SHOULD INCLUDE:

Uploaded to Box folder by Friday, November 18th

1. A detailed physical model of their incremental unit typology
   (Group Deliverable)

2. A written description indicating how their design strategies and interventions address each incremental financing and its relationship to female financing
   (Group Deliverable)

3. A personal reflection on the process of developing and designing incremental urban strategies. For example how did your group coalesce around an intervention, how were priorities developed, were any trade-offs made, what synergies did you identify?
   (Individual Deliverable)

4. Photo documentation of Process (see following page)
   (Group Deliverable)

BARRIO NUEVO

SCHEDULE OVERVIEW

All sessions will be held in the Steinberg Gallery Space at the Sam Fox School of Design & Visual Arts.

Students are expected to attend the public lecture and all workshop sessions for the full-duration noted and engage in all group exercises and reviews.

Barrio Nuevo
All images courtesy of Dis_Local

FRIDAY, 11/4

13:00: **Workshop Begins**
Introduction Problem Statement & Challenge

13:30 – 16:15: **Design Challenge #1:**
Housing Typologies & Site Introduction

- Develop typological options responding to structure, material, generational living and program
- Build Base model
- Mapping and Understanding – draw layers onto your model to form a mapping of the context (i.e. pedestrian routes, thresholds, ecological boundaries, etc...)
- Use your model to show ideas and areas for the top 3 transformation opportunities. Add flags, notes, or other symbols to show your ideas.

Outcome:

- Base Model
- Housing Typology Prototypes

16:15 – 17:00: **Pin-up Discussion of Design Challenge #1**

17:30 -- **Public Lecture Reception: Steinberg Gallery**

18:00 -- **Public Lecture: Steinberg Auditorium**

SATURDAY 11/5

08:30 – 09:00: **Coffee and Bagels**

09:00: **Problem Statement for Design Challenge #2: Collective Space**

09:30 – 12:30: **Design Challenge #2: Collective Space Toolkit**
Based on the housing typologies generated, design the collective space within your neighborhood cluster. As a group develop design ideas using the programmatic prompts for collective spaces that respond to the desire for permanency and incrementalism.

Consider the design of public space, infrastructure, block sizes, and streets. Matt and MaBe to meet with groups individually

- Reflection: Individually create reminders from Day 1
- Group: Develop goals (approx. 3-4) that the Collective Space considers
- Develop models of the collective space

Outcome:

- Collective Space Design Toolkit

12:30 – 1:30: **Lunch (on your own)**

1:30 – 2:30: **Group Presentation**
Each group will give a 4-5 min presentation to the studio

2:30 – 2:50: **Problem Statement for Design Challenge #3: Incremental Growth**

2:50 – 4:45: **Problem Statement for Design Challenge #3: Incremental Growth**
Cumulative building and the possibilities for growth overtime are key considerations. Develop design responses that consider how Barrio Nuevo can evolve. Consider physical strategies, negotiation processes, and the financial considerations required to enable incremental growth.

- Revisit Housing Typologies and develop a strategy to incrementally build the unit.
- Develop a phasing plan for your Housing Typology.
- Create a "Year 1", Year "3", and Year 10 phase

Outcome:
- Design model of Incremental Growth Possibilities

4:45 – 5:15: **Group Recap**
Each group will give a 3-4 min highlight of their work to the studio

SUNDAY 11/6

08:30 – 09:00: **Coffee and Bagels**

09:00 – 12:00: **Design Challenge #4: Barrio Nuevo Cluster Plans**
Overview Presentation – orientation by MaBe
Review how your incremental housing typologies intersect with the Collective Space designs from design challenge #2

- Each group will be given a Scenario to respond to.
- Rethink, rebuild, and remember this is a process, not a product.

Outcome:
- Multiple Design Models that show incremental growth
- Map your Design process

12:00 – 13:00: **Working Lunch**

13:00 – 13:30: **Groups prepare narrative for Discussion**
- Decide who will talk (ideally everyone will present). Remember to show the process and use the work to show your thoughts.
- Set-up & prepare room
- Enjoy the event

13:30 – 15:00: **Reflection & Open Discussion**

WORKSHOP FACILITATORS

MARIA BEATRIZ GARCIA-RINCON
Dis_Local

Executive Director

DISLOCAL
Thriving Structures and sustainability on the Global Periphery

GUEST PROFESSOR & LEAD FACILITATOR

Maria Beatriz (Mabe) Garcia Rincon is the Executive Director of Dis_Local Lab, an international development firm that offers development solutions via architecture, design, landscape architecture, and environmental sciences as well as policy initiatives. She is also a climate finance consultant at the World Bank where she advises senior leadership under the Multilateral Investment Guarantee Agency (MIGA), Washington D.C. She advises senior leadership on international financial strategies to protect foreign direct investments against political and non-commercial risks in developing countries as well as on Fragile, under Conflict and Violent (FCV) countries. Washington D.C.

Garcia Rincon returned to private sector and non-profit management strategy to offer architecture a pathway through which to integrate its scenario-building visual analyses as a way to enhance informal spaces with innovative ways to integrate into the sustainable growth of cities. A career international development professional, she led Urban-Elements Foundation, an NGO with eight other Harvard graduates at the Graduate School of Design (GSD) between 2014 to July 2017, where she advanced design-finance thinking to innovate modes of financial fundraising for informal strategic development for net-zero modalities. Previous assignments include Harvard University Fellow at Zofnass for Sustainable Infrastructure and the Exuma Lab. Garcia Rincon also served at the Environment Department Front Office to the World Bank for the Climate Investment Fund, strategy, and behavior change from 2008-2010. She is a graduate in Urban and International Development Master of Science from London School of Economics and Political Science (LSE), and a Master of Science in Urban and Regional Policy at Northeastern University. Thereafter, she project managed at Harvard University at the Boston Federal Bank Affordable Housing Competition where she led a team that won second place and also worked at the Sustainability Fellowship in Boston.

Prior to joining the World Bank, Garcia-Rincon worked in the private sector as a procurement specialist in McLean, VA, and led teams in London, UK, Caracas, Venezuela, and San Jose, Costa Rica.

MATT BERNSTINE
WashU, Urban Design

Lecturer &
Assoc. Dir, Office for Socially Engaged Practice

FACULTY HOST & CO-FACILITATOR

Matthew Bernstine, AICP, LEEPAP, is a practicing designer and educator. As a lecturer in the Sam Fox School, he teaches seminars and workshops on Informal Urbanism, Contemporary Metropolitan Sustainability, and Community Design.

Bernstine was a co-principal investigator for the Mobility for All by All project, supported by a grant from the The Divided City initiative, which is funded by the Mellon Foundation. He was the project manager for the Misi-Ziibi Living Delta team that was selected as a winning submission for the International Van Alen Design competition, "Changing Course; navigating the future of the Lower Mississippi River Delta." Bernstine is currently collaborating on a Divided City grant investigating the role of technologies in cementing socioeconomic segregation in Mexico City.

In addition to his faculty position, Bernstine is the Associate Director for the Office for Socially Engaged Practice at Sam Fox.

Reference Materials

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Chant, S. H., & McIlwaine, C. (2016). Cities, slums and gender in the Global South: Towards a Feminized Urban future. Routledge.

Spicer, D. E., & Husock, H. (2003). Financing Slum Rehabilitation in Mumbai: A Nonprofit Caught in the Middle. Case Program, John F. Kennedy School of Government, Harvard University , C16-03-1688.0, 1–21.

Image source: Dis_Local

Article by the Borgen Project.
Written December 4, 2017
By Carolyn Gibson

With nearly 21 percent of Costa Rica's population lived below the poverty line in 2016. In a July 2017 report, the U.S. Central Intelligence Agency reported that Costa Rica's population was at 4,930,258 and over one million Costa Ricans currently live in poverty. The following 10 facts about Costa Rica slums focus on two of its major slums: Triángulo de Solidaridad and La Carpio. These 10 facts about Costa Rica slums also touch on the appearance of residents' homes and the government's role in their maintenance.

10 Facts about Costa Rica Slums

1. Triángulo de la Solidaridad, one of the capital's best-known slums, is now a tourist attraction. Slum residents guide visitors and Costa Ricans through the slum in order to provide them with a new perspective on the country's consistently high poverty rate.
2. Roughly 2,000 people— more than 520 families— live in Triángulo de la Solidaridad.
3. Triángulo de Solidaridad is located off Route 32, just north of downtown San José. Residents must cross the highway daily as they walk to and from work.
4. Costa Rican slums appear colorful because their improvised homes are made of tin, wood and other scrap materials.
5. Triángulo de la Solidaridad, because it is located along the highway, conflicts with Circunvalación Norte— a project that expands the belt route connecting eastern and western sectors of San José. The Housing Ministry must notify and relocate families who live in the community.
6. La Carpio is one of Costa Rica's least known slums, but it may very well be one of the worst. The slum is a remote section of San José located between two polluted rivers and the city's landfill. Over 30,000 residents are packed into La Carpio.
7. La Carpio and Triángulo de la Solidaridad were both founded by Nicaraguan refugees. The majority of their residents are undocumented immigrants who are often ignored by the Costa Rican government.
8. Over the past 20 years, La Carpio has established schools and a medical clinic, water and sewage connections, cement floors and paved roads.
9. A few students from La Carpio are set to graduate from high school and attend university— a milestone for the community.
10. La Carpio residents can either walk across a bridge or take a bus to get to work. The bridge is a rickety suspension foot-bridge that stretches across the Rio Torres, but residents still opt for this dangerous route to save the 45 cents bus fare.

As evident in the preceding 10 facts about Costa Rica slums, slums may become tourist attractions that offer visitors a new perspective on living below the poverty threshold. Tourists that are exposed to poverty may seek further education on the subject in an attempt to eradicate it.

Emerging Tech-Based Financing Models in Affordable Housing: A look at four different business models and how their value compares for customers and financial service providers

By Jitendra Balani & Daniel Waldron

Jitendra Balani is Associate Director, Financial Inclusion and Capital Markets with Habitat for Humanity's Terwilliger Center for Innovation in Shelter, a unit that works with housing market actors to expand innovative and client-responsive services, products and financing so that households can improve their shelter more effectively and efficiently.

Daniel Waldron is a financial inclusion specialist at CGAP, focusing on the intersection between financial services and essential services such as energy and water.

828 million people around the world live in slums, and this number does not include people from rural areas who live in substandard houses. Lack of access to housing finance contributes greatly to this housing gap. Low-income families whose livelihoods come from the informal economy often lack the income proof and credit history required to be eligible for a mortgage loan. As a result, they are denied the improved health, education and sense of security, including the ability to practice social distancing, that come from adequate housing.

The gap between demand and supply of affordable housing finance products is huge, estimated at $16 trillion by McKinsey & Company. This presents a sizeable business and social impact opportunity for financial service providers (FSPs) to develop new products and services that enable housing finance for low-income families. Though in the past many traditional FSPs have lacked the tools to adequately identify, assess and monitor borrowers in the informal sector, this is beginning to change.

A fast-evolving financial ecosystem offers potential for affordable housing finance The financial ecosystem is evolving rapidly with the advent of tech-enabled and branchless banking models. Digital platforms and digital banks are getting active in the housing finance space. MFIs and housing finance companies are increasingly using digital field applications and credit scoring platforms to improve customer experience, reach out to new customer segments, enhance operational efficiency and offer additional products. Banks are getting into the agency model by appointing organizations such as MFIs, NGOs and cooperatives as distribution points for offering a suite of their products.

These emerging tech-based models hold the potential for furthering the cause of safe, secure, and affordable housing. Twitter logo In this blog post, we look at four different emerging models along with examples for each one.

Model #1: Digital platforms facilitating housing finance

There are a number of different types of digital platforms which facilitate housing finance, including:

- Fintech companies that provide financial services to the retail segment, such as peer-to-peer lending platforms, fintechs focusing on consumer finance and others.
- Digital marketplace platforms that allow a retail customer to choose a product from various FSPs.
- Payment-based platforms that would like to diversify their offerings through tie-ups with relevant entities.
- Tech-enabled platforms (such as e-commerce firms) that would like to get into the financial services space.

One example of this business model is Gradana, a fintech peer-to-peer lending platform in Indonesia that focuses on property-related financing. The startup targets first-time home buyers who have difficulty saving up for a down payment. It supports them by aggregating developers, agents, investors and banks to make property investments more accessible and affordable.

Square Yard, India's largest integrated platform for real estate and mortgages, is another example. Square Yard's platform offers an integrated consumer experience and covers the full real-estate journey from search and discovery to transactions, home loans, rentals, property management and post-sales service.

Model #2: Fully digital retail banks

Another emerging housing finance model takes the traditional banking business model and improves it with the latest digital technologies to offer a better banking experience for lower cost. For example, digibank is a completely digital bank launched by the DBS group which offers full suite banking solutions (including home loans) directly on smartphones. It is currently available in India and Indonesia.

Model #3: Partnerships between digital platforms and commercial banks or lending companies

Emerging partnerships between traditional lenders and platforms or marketplaces aim to leverage each other's strengths. For example, Bank BTN, one of the largest commercial banks in Indonesia, partnered with Gojek, a multi-service app which includes ride-sharing and delivery services, to offer home loans to its drivers. The bank uses drivers' transaction history on Gojek's payment platform to determine creditworthiness and approve loans.

Model #4: Housing finance companies embedding technology into core operations

Last but not least, we have housing finance companies and microfinance institutions which are leveraging technology to improve the customer experience and streamline their operational models.

Aviom India Housing Finance is an affordable housing finance company in India that has embedded technology in various aspects of its business model to help it provide mortgage solutions to low-income women from informal segments, strengthen credit underwriting through proprietary credit scoring platform, improve the turnaround time of applications, and improve overall risk management throughout the product life cycle.

How do the models compare in terms of value for the customer and the FSP?

The qualitative analysis in the table below captures the degree of value propositions that tech-enabled business models offer to customers and financial intermediaries. While the degree may vary, all of the value propositions are applicable to each model. And, importantly, all of the models enable a deep understanding of customer usage and behavior through advanced data collection, which could be further leveraged to develop customized products for target segments. These value propositions should eventually lead to efficiency gains for both providers and end-users.

Type of financial intermediaries	Customer value proposition					Value for financial intermediaries	
	Remote/rapid on-boarding of customers	Faster turnaround time of credit applications	Product choices	Digital customer engagement	Competitive pricing	Improved credit underwriting	Data driven understanding of clients
Digital platforms facilitating housing finance	High	Medium/High	Medium/High	High	Low/Medium	Medium/High	High
Fully digital retail bank	High	Medium/High	High	High	High	Medium/High	High
Partnerships between digital platforms and incumbent financial services providers	Medium/High	Low/Medium	High	Low/Medium	Medium/High	High	High
Housing finance companies embedding technology into core operations	Medium/High	Medium/High	Low/Medium	Low/Medium	Medium/High	High	High

*Qualitative analysis and relative comparison of the four models

Table comparing the value propositions for different financing models

Apart from financing, low-income households struggle to secure other housing inputs, such as materials, labor, home design, budgeting and reliable estimation. Non-financial services for homeowners can also benefit from the adoption of technology-enabled models, helping to empower homeowners to make essential decisions in their home improvement journey. For example, the iBuild app serves as a marketplace, connecting the customer, contractor, worker and supplier on a single platform to help families manage their construction projects.

Continued study is needed to know which innovations will lead to more inclusive housing finance

The hope is that these digital innovations and platforms will either create increased access to affordable housing finance on their own or enable more traditional financial service providers such as banks and MFIs to begin offering housing-related loans at greater scale and affordability. But it remains to be seen whether efficiency gains brought on by digitization are passed on to customers in the form of reduced pricing or more inclusive lending criteria. Only time and further research will reveal which factors and models are effective in sustainable financing housing for low-income people.

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Image source: Dis_Local