

Building sustainable and inclusive urban futures: Incremental housing and material flows in the Global South

Report of the Matchmaking event, February 21, 2019, Utrecht University

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On February 21, a multi-disciplinary group of 20 academics and practitioners came together to exchange their knowledge and experience on incremental housing and material flows in the Global South. The general objective of the workshop was to find a new and innovative way of looking at incrementalism by collaborating with a wide range of actors. We suggested to look at incremental housing from a material perspective by looking at the whole industry around the construction of incremental housing, as we noticed that the material aspects, and all kind of dynamics surrounding them are often ignored from a social sciences perspective.

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After a general introduction and some background to the workshop, we started with four brief keynote speeches. Jan Bredenoord (international consultant and researcher) gave a talk about affordable and sustainable materials for low-cost housing. Apart from elaborating the concrete potential of materials such as bamboo, and compressed stabilized earth blocks with biological stabilizers, he also emphasized the benefits of bringing the production unit to the location (in the form of mobile factories) and the potential of re-using or recycling concrete (in particular after the earthquake in Haiti). This talk was followed by a presentation from Meintje Delisse of Bureau SLA architects. She illustrated how they attempt to move towards a circular economy through a range of different projects, e.g. building with recycled plastic. She also elaborated briefly on a resettlement project they are working on in Casablanca. Next, Liza Cirolia, a researcher at the African Centre for Cities in Cape Town, elaborated on the co-production philosophy. She zoomed in on the Human Settlement CityLab she lead at ACC and explained the disjuncture between policy makers (emphasizing the institutional and legal aspects), architects and designers (very much focusing on technological and design solutions), academics (using the political economy approach), and NGOs (working from a rights-based approach). Co-production requires being transparent about where each participant comes from and what their interests are; as well as accepting a degree of messiness. Finally, Smruti Jukur from SPARC/Slum Dwellers International in India addressed the question “how do people make choices and build incrementally?” and made clear that there are many internal as well as external factors that influence the choices people make to build incrementally. While people may start building with recycled temporary materials from second hand markets, they will move on to using cement once their situation becomes more permanent and they have access to some form of finance. A real affordable alternative to cement has not been found yet.

The four presentations were useful to set the scene and to give some concrete inspiration to look to incremental housing debates from a variety of angles. However, with this wide approach it also became clear that the specific focus of the workshop, and thus the general topic and approach of the project, had to be further fine-tuned. Within the discussion following the keynote presentations, some guiding questions were formulated and discussed:

- What do we mean by incremental housing? Which target group are we looking at? What types of incremental housing are we looking at (self-build, sites & services, etc.)?
- Is resource scarcity the real bottleneck of incremental housing or are sustainable building materials the real issue when looking at incremental housing? Is there a real scarcity of building materials?
- What is the problem we start from and use to frame this discussion? Do we take urban poverty as a starting point by looking to affordable housing solutions for the poor segments of the urban society? Or should we rather look to the broader urbanization debate, the need to accommodate a rapidly growing urban population and the related discussions on the need to densify?
- What is the scale we are looking at? How scalable or replicable is the re-use of materials for the global call for efficient housing provision?
- And what is the time frame we are talking about? How can we look at the process of housing transformations through the time? How to include the issues of maintenance and repair?



In the afternoon, we further addressed these questions by first giving the floor to Nadine Herold from NWO who briefly explained the NWA programme of NWO and some concrete funding opportunities coming up in the Dutch National Science Agenda. Next, the group was divided into four small groups using the world café method to brainstorm and further advance the ideas of building materials, co-production, flow perspective and incremental housing.

Table 1: *Building materials*, moderated by Delphine, PhD Candidate, Department of Human Geography and Spatial Planning, Utrecht University

At this table, the need for a framework to define certain "sustainability" criteria of building materials was discussed. What makes a material "sustainable"? On the supply-demand side, the following criteria were proposed to take into consideration: where does the material come from (impact of production and distribution), material costs (does it contribute to the local economy), impacts on environment, capacity, durability and the life cycle of the materials. In addition, one can also use embodied energy of materials as a criterion, or architectural preferences. Besides narrowly focusing on building materials of incremental housing, it was suggested to consider other supporting infrastructure of incremental housings such as water provision, electricity, etc. Finally, participants at this table discussed whether the reasoning of resource scarcity is convincing enough to come up with proposal for "sustainable materials for incremental housing."

Table 2: *Flow perspective methodology, building materials and housing*, moderated by Marthe Derkzen, coordinator of LANDac, Utrecht University

The participants at this table started from the general premise that the flow perspective as a methodology to look at incremental housing is not clear and that there was not so much expertise in the group. However, on the basis of a short brainstorm there were three flows identified as key: material flows, labour flows and finance flows. The most convenient approach to look at these flows would be by following the material and following the money, but the participants also discussed some alternative approaches such as webs, social networks and snail analyses. In all of these approaches, there is a clear need to focus on power relations, spatiality and temporality to analyze dynamics through space and through time. In that sense it would be worthwhile to look back and look ahead in a flow perspective analysis.



Table 3: *Incremental housing practice*, moderated by Manja Andreasen, research fellow, Department of Human Geography and Spatial Planning, Utrecht University

Incremental housing practices are influenced by internal factors across a range of contexts including family dynamics, such as family sizes, multi-generation households and extended family obligations, participation in migrant networks and access to remittances. External factors include formal, informal and extra-legal channels through which self-builders access land, legal and perceived tenure security and provision of access to services and infrastructure before, during or after settlement through self-provision, informal private operators, formal service providers or local authorities. External factors also include the approach of the state and the changing policies towards incremental housing practices, especially in informal areas. Access to housing finance also influences incremental housing practises across different contexts. There was agreement that the most significant source of finance for most self-builders across the Global South is accumulated household savings from businesses, employment, other livelihood activities, rental incomes or the sale of household assets. Some self-builders receive gifts and support from family and relatives, including remittances from migrants. Access to loans can be significant in financing incremental housing in some contexts, e.g. through banks or microfinance institutions, participation in rotating savings groups, informal money lenders or government loans to government employees. In some contexts, self-builders also draw on external support, e.g. housing subsidies for low-income households, housing allowances for government employees or direct support from NGOs engaged in housing supply.

The group discussed access to building materials and technologies as important factors influencing incremental housing practices. While the previously mentioned factors were known to group participants, they had less knowledge to draw on in relation to how access to building materials and technologies shape incremental housing practices across different contexts. The group discussed how incremental housing practices are likely influenced by the type of materials that are locally available or accessible through local markets and distribution networks, and the affordability and durability of different materials. Local practices around recycling of materials or illegal/extra-legal acquisition of building materials can also influence construction practices. The technical skills, knowledge and training of the self-builders themselves as well as the local construction workers and/or companies are also important factors. Access to building materials and technologies is shaped by the various small- or large-scale industries around incremental housing construction, e.g. in relation to land acquisition, construction work and production, distribution, sale and transport of building materials.



Table 4: *Co-production*, moderated by Ajay Bailly, Assistant Professor, Department of Human Geography and Spatial Planning, Utrecht University

The participants at this table discussed the many different actors who are often involved in incremental housing practices and could be involved in such a research project. One idea was to conduct a stakeholder analysis of the actors who are involved in order to understand the many complex relationships among them. Another issue that was raised was how the Dutch research agenda benefits from such a discussion, and how we could use the research to provide critical input into the Dutch funding and international cooperation system. The participants also discussed the outcomes that could be reached by co-producing a research project on incremental housing. What is the outcome you want as a project and how you can make the most potential of a multi-disciplinary group? How can you make the most out of the Dutch funding opportunities, where does it have most added value e.g. in an ambitious project with inter-disciplinary and globally comparative research?

In the closing session, the main insights from the tables were further elaborated and the group discussed whether incremental housing can be considered as a solution or as a problem. If considered a problem (though an inevitable reality), a question to be addressed is how to accommodate incremental housing with the pressing need for cities to house more people while going vertical and not extending further? If incremental housing is considered a solution, could it be seen as an alternative pathway to urbanization? Then what research is needed and how can this project have an added value and a different approach? The focus on following the building materials and related industries is subject to debate; is scarcity of building materials actually a strong enough reality and rationale for starting a research?

List of participants:

- Abigail Friendly, Assistant Professor, Department of Human Geography and Spatial Planning, Utrecht University
- Ajay Bailey, Assistant Professor, Department of Human Geography and Spatial Planning, Utrecht University
- Andries de Jong, Chairman supervisory board Evodos bv, Homeplan
- Bahar Sakislioglu, housing expert in the Urban Housing, Equity and Social Justice team, Institute for Housing and Urban Development Studies, Erasmus University, Rotterdam
- Delphine, PhD candidate, Department of Human Geography and Spatial Planning, Utrecht University
- Femke van Noorloos, Assistant Professor, Department of Human Geography and Spatial Planning, Utrecht University
- Frederique van Andel, researcher Global Housing Study Centre and editor of DASH (Delft Architectural Studies on Housing), TU Delft
- Griet Steel, Assistant Professor, Department of Human Geography and Spatial Planning, Utrecht University
- Jan Bredenoord, International consultant and researcher
- Liza Criolia, researcher, African Centre for Cities, Capetown
- Lucía Valenzuela, Institute for Housing and Urban Development Studies alumnus
- Manja Andreasen, research fellow, Department of Human Geography and Spatial Planning, Utrecht University
- Marthe Derkzen, research coordinator, LANDac, Utrecht University
- Meintje Delisse, bureau architect, Bureau SLA
- Murtah Shannon, PhD candidate, Department of Human Geography and Spatial Planning, Utrecht University
- Nadine Herold, coordinator Sustainable Development Goals route NWA, NWO
- Nelson Mota, Assistant Professor, Global Housing Study Centre, TU Delft
- Smruti Jukur, architect and urban planner, SPARC/Slum Dwellers International, India
- Sophie Schramm, Assistant Professor, Department of Human Geography and Spatial Planning, Utrecht University
- Tommaso Venturini, researcher, TU Delft

