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Cuba
Housing Policies



Editorial

The background to this special country volume of TRIALOG is rooted in a request by the Cuban Government to UN-HABITAT to support the preparation of a new Housing Law in 2013 – and connected to that, the publication of a special country volume on Cuba being part of the UN-HABITAT Housing Profile series. Kosta Mathéy – co-founder and TRIALOG member since 1983, and acknowledged international expert on Housing provision in Cuba¹ - was invited to compile and edit this publication, and to share his observations with the Cuban counterpart in view of the forthcoming Housing Law. In gathering the necessary data, he was supported by a team of national experts², who each contributed their knowledge in the compilation of individual chapters for the policy report, which was submitted to the national counterpart in 2014.

In the same year, UNHABITAT published a 70-page 'executive' version of the Housing Profile³, based on a draft version by Kosta Mathéy. But the initial request - to advise the Cuban Government in the formulation of a new National Housing Law - had become obsolete after the National Housing Institute (INV) had been dissolved, and its former staff – and their functions – transferred to two different state institutions: The Ministry of Construction (MICONS) and the Physical Planning Institute (IPF). A digital version of the full research report,⁴ comprising over 500 pages, was informally distributed among relevant state, academic and professional key addressees within Cuba, but never formally published for lack of funds necessary to cover the cost of copy editing and printing. Nevertheless, there is a general agreement that, even today, this work including its 15 comprehensive sector reports, represents a key document to understand the Cuban Housing system.

Methodologically different from the many planning workshops organized in the various provinces, our starting question was not '*what needs to be done?*' – which invariably provokes actionist ad-hoc recipes. Adopting a more 'scientific' approach, we started by exploring the bottlenecks in the current national system of housing provision and management. Following the identification of these PROBLEMS – which are visible on the surface - we then went forward analysing their roots. Finally, for each of the identified CAUSES, one or several possible REMEDIES were evaluated and proposed as policy options. In medicine and other sciences this LOGICAL FRAMEWORK is well established – but, strangely enough, only rarely applied in politics.

Apart from the documentary part of the work, the RESULTS of this analytical research culminated in the identification of **171 key problems**, which can be explained as a consequence of a list of **406 causes** (or 'roots'). For each of the identified causes, different alternative or complementary 'cures' have been described: altogether not less than **518 remedies!** This detailed analysis offers an ample list of possible policy options to improve the acknowledged housing crisis in Cuba.

Considering such a large number of policy options, the strategic question is less a question of 'what to do?' - but rather '*where to start first?*' The good news for the policy makers is the observation, that most of the measure proposed in the Housing Profile are not capital intensive - and a large part among them do not require any capital investment at all. However, for having been specifically developed on the basis of the concrete situation in Cuba, most of the described solutions would not be applicable automatically in a different national and economic context. Nevertheless, the underlying logic and methodology is rather simple and not restricted to the Cuban case.

For publication in TRIALOG, the full research report would be too voluminous, apart from the obstacle of only being available in Spanish language. The short 'Versión Ejecutiva', was copy-edited by UN-HABITAT with an official audience in mind, while TRIALOG readers tend to be mostly academics plus some field professionals. Hence, a different version was fully rewritten for TRIALOG in English except for some smaller sections which are translations from the original UNHABITAT manuscript. More importantly, since a considerable number of international research on different aspects of housing in Cuba has been published recently, the relevant new references have been added in this paper.

On my last visit to Cuba, I asked a number of colleagues about any important recent changes in the housing system, which should be considered in the present edition. The uniform reply was that, unfortunately, the originally planned comprehensive overhaul of the housing system has not yet happened, and that the adjustments made in between were of minor importance. However, myself I feel that at least one significant change needs to be pointed out - and this is the new and acknowledged right to sell and buy residential property on the market. This reform is significant since it implies a change of meaning of the 'home' from being a basic right into a commodity. Therefore, a separate paper on the recent commodification of housing in Cuba, authored by Aline Miglioli, was added after the main contribution in this volume.

I thank my colleagues in the TRIALOG editorial board for their patience until the finalization of this volume's manuscript, but also especially to the members of my National Support Team and to Claudio Acioly, my advisor on behalf of UN-HABITAT in the preparation of executive version of the Cuba Housing Profile.

Kosta Mathéy⁵

¹ Based on my PhD research in Cuba, see: Mathéy, Kosta, 1983/2021, Kann Selbsthilfe-Wohnungsbau sozial sein? Bielefeld: LIT. [<https://kobra.uni-kassel.de/themes/Mirage2/scripts/mozilla-pdf.js/web/viewer.html?file=/bitstream/handle/123456789/13348/DissertationKostaMatheySelbsthilfeWohnungsbau2021.pdf?sequence=3&isAllowed=y>] and: Mathéy, Kosta, 1992. 'Self-Help Housing Policies and Practices in Cuba' in: Mathéy, Kosta: Beyond Self-Help Housing. London: Mansell, pp 181-216. [<https://zenodo.org/record/5804449#.Ylbl80jP3MU>].

² The Cuban expert team comprised: Salvador Gomila (†), Alina Azze Meserene, Manuel Coipel Díaz, Santiago Herrera Linares, Milagros López Jiménez, Miguel Padron Lotti, Yudelka Rivera Marzal, Carlos Manuel Rodríguez Otero, Ester Velis Díaz de Villavilla.

³ Perfil de la Vivienda en CUBA (Executive Summary). Nairobi 2014, ISBN 978-92-1-131927-9. [https://unhabitat.org/sites/default/files/2021/04/edited_version_ejecutiva_housing_profile_cuba_web.pdf]

⁴ Kosta Mathéy (ed.), 2018. La Vivienda en Cuba, 536pp. [<https://zenodo.org/record/5801730#.YcdtUWizPMU>]

⁵ Kosta Mathéy is director of the GLOBUS, the Global Urban Studies Institute (globus-berlin.org) and an active member of the European Network of Housing Research (ENHR) and of the International Network for Urban Research and Action (INURA). He also was founding member of TRIALOG. [<https://www.globus-berlin.org/kosta-mathey>]

Cuba - Housing Policies

Volume editor: Kosta Mathéy

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Editorial (Deutsch) — Kubas Wohnpolitik

Der Hintergrund dieses speziellen Länderbandes von TRIALOG geht auf eine Anfrage der kubanischen Regierung an UN-HABITAT zurück, die Vorbereitung eines neuen Wohnungsbaugesetzes im Jahr 2013 zu unterstützen. Kosta Mathéy - Mitbegründer und TRIALOG-Mitglied seit 1983 und international anerkannter Experte für das Wohnungswesen in Kuba¹ - wurde ausgewählt, das Material zusammenzustellen und das kubanische Institut für Wohnungswesen (Instituto Nacional de la Vivienda) bei der Ausarbeitung des kommenden Wohnungsbaugesetzes zu beraten. Unterstützt wurde er in dieser Aufgabe von einem Team nationaler Experten,² die ihr Wissen auch bei der Erstellung des ‚Sektor-Profils Wohnen‘ einbrachten. Eine 70-seitige Kurzfassung veröffentlichte UNHABITAT schon 2014.³

In der Zwischenzeit war der ursprüngliche Auftrag, bei der Formulierung eines neuen nationalen Wohnungsbaugesetzes beratend tätig zu werden, hinfällig geworden, nachdem der Auftraggeber, das Nationale Wohnungsbauinstitut (INV), aufgelöst worden war, und seine ehemaligen Funktionen sowie die Mitarbeiterinnen und Mitarbeiter – in zwei verschiedene staatliche Abteilungen (Bauministerium ‚MICONS‘ und Institut für Raumplanung ‚INV‘) integriert worden waren. Eine digitale Version des vollständigen und über 500 Seiten umfassenden Forschungsberichts⁴ wurde informell an relevante staatliche, akademische und professionelle Schlüsseladressaten in Kuba verteilt, aber angesichts der Kosten für das Lektorat und den Druck nie veröffentlicht. Dennoch besteht allgemeiner Konsens darüber, dass das Werk seinen 15 umfassenden Sektoranalysen auch heute noch ein Schlüsseldokument über das kubanische Wohnungswesen darstellt.

Methodisch unterscheidet sich der Forschungsbericht von den in vielen Provinzen beliebten Planungsworkshops, deren Ausgangsfrage simpel heisst: *„Was muss getan werden?“* Wir dagegen wählten einen wissenschaftlicheren Ansatz und untersuchten zunächst die Engpässe im derzeitigen System der Wohnungsversorgung und -Verwaltung. Nach Identifizierung dieser PROBLEME - die an der Oberfläche sichtbar sind – folgte als nächster Schritt, ihre Wurzeln oder URSACHEN zu analysieren. Schließlich wurden dann für jedes dieser Probleme eine oder mehrere mögliche Abhilfemaßnahmen bewertet und als politische Optionen vorgeschlagen. In der Medizin und anderen Wissenschaften ist dieses Vorgehen (auch als LOGFRAME beschrieben) etabliert - aber seltsamerweise nur selten in der Politik.

Das ERGEBNIS dieser Forschung führte zu einer Identifizierung von **171 Schlüsselproblemen**, die als Konsequenz einer Liste von **406 Ursachen** (oder „Wurzeln“) identifiziert werden können. Für jede der ermittelten Ursachen wurden verschiedene alternative oder sich ergänzende „Therapien“ beschrieben - insgesamt mögliche **518 Maßnahmen!** Diese detaillierte Analyse erlaubt eine umfassende Auswahl möglicher Gegenmaßnahmen oder Innovationen zur Verbesserung aus der bekannten Wohnungskrise in Kuba.

In Anbetracht einer so großen Zahl von politischen Optionen ist die strategische Frage weniger: Was ist zu tun? - sondern vielmehr: *Wo sollte man zuerst anfangen?* Die gute Nachricht für die politischen Entscheidungsträger ist die Feststellung, dass die meisten der im Wohnungsbauprofil vorgeschlagenen Maßnahmen nicht kapitalintensiv sind - und ein großer Teil von ihnen überhaupt keine Geldinvestitionen erfordert. Da sie speziell auf der Grundlage der konkreten Situation in Kuba entwickelt wurden, wären die meisten der beschriebenen Lösungen nicht automatisch in einem anderen nationalen und wirtschaftlichen Kontext anwendbar. Die Entflechtungslogik und -methodik ist jedoch einfach und nicht auf den kubanischen Kontext beschränkt.

Für eine Veröffentlichung in TRIALOG wäre der vollständige Forschungsbericht bei weitem zu umfangreich. Die auf Spanisch veröffentlichte Kurzfassung wurde von UN-HABITAT mit Blick auf ein anderes (eher politisches) Publikum editiert, während die typischen TRIALOG-Leser eher Akademiker und einige Fachleute sind. Daher wurde der vorliegende auf Englisch verfasste Artikel vollständig neu geschrieben, mit Ausnahme einiger kleinerer Abschnitte, die aus der Autorenfassung des an UNHABITAT übergebenen Manuskripts übersetzt wurden. Wichtiger ist jedoch, dass eine beträchtliche Anzahl internationaler Veröffentlichungen zu verschiedenen Aspekten des Wohnungswesens in Kuba zwischenzeitlich erschienen ist, und die entsprechenden Verweise in das Manuskript für die hier vorliegende Veröffentlichung aufgenommen wurden.

Bei meinem letzten Besuch in Kuba habe ich eine Reihe dortiger Kolleginnen und Kollegen nach wichtigen aktuellen Veränderungen im Wohnungssektor gefragt, die noch berücksichtigt werden sollten. Die einheitliche Antwort war, dass die ursprünglich geplante Aktualisierung der Wohnungspolitik leider noch nicht stattgefunden hat, und die vorgenommenen Anpassungen nicht signifikant waren. Ich selbst bin jedoch der Meinung, dass zumindest eine bedeutende Änderung hervorgehoben werden muss, und zwar das betrifft diese das neue und signifikante Recht, Wohneigentum frei zu verkaufen und zu kaufen. Diese Neuerung ist insofern von Bedeutung, als damit offiziell die Bedeutung von „Wohnung“ als Ware und nicht als ‚Grundrecht‘ eingeführt wurde.⁵ Aus diesem Grund wurde dem Hauptteil des Heftes ein separates Papier über die jüngste Kommodifizierung von Wohnraum in Kuba hinzugefügt, das von Aline Miglioli verfasst wurde.

Ich danke meinen Kolleginnen und Kollegen in der TRIALOG-Redaktion für ihre Geduld bis zur Fertigstellung des Manuskripts dieses Bandes, vor allem aber auch den Mitgliedern meines Nationalen Unterstützungsteams und Claudio Acioly, meinem Berater im Namen von UN-HABITAT bei der Vorbereitung der Erstellung des ‚Perfil de la Vivienda CUBA‘.

Kosta Mathéy

¹ Kosta Mathéy schrieb seine Doktorarbeit über das Wohnungswesen in Kuba: Mathéy, K., 1983/2021, Kann Selbsthilfe-Wohnungsbau sozial sein? Bielefeld: LIT. [<https://kobra.uni-kassel.de/handle/123456789/13348>] und: Mathéy, Kosta, (1992).

‘Self-Help Housing Policies and Practices’ in Mathéy, K.: Beyond Self-Help Housing. London: Mansell, pp 181-216. [https://zenodo.org/record/5804449#_ycc_SWiZPMUJ].

² Die Mitglieder des kubanischen Expertenteams waren: Salvador Gomila (†), Alina Azze Meserene, Manuel Coipel Díaz, Santiago Herrera Linares, Milagros López Jiménez, Miguel Padron Lotti, Yudelka Rivera Marzal, Carlos Manuel Rodríguez Otero, Ester Velis Díaz de Villavilla.

³ Perfil de la Vivienda en CUBA (Versión Ejecutiva). Nairobi 2014, ISBN 978-92-1-131927-9. [<https://unhabitat.org/perfil-de-la-vivienda-cuba>]

⁴ Mathéy, Kosta (ed.), 2018. La Vivienda en Cuba. [https://zenodo.org/record/5801730#_yugn4HbP3MUJ]

⁵ Die zahlenmäßige Begrenzung auf eine Stadtwohnung und eine Ferienwohnung auf dem Land pro Person bzw. Familie bleibt aber erhalten.

01 The Historic and Global Context of Housing in Cuba

The international professional interest in Cuba's housing and urban policies tends to be considerably larger than for most other countries of the global South – largely because, still today, the country claims to apply socialist principles in its policies and practices – including more people-oriented housing policies. In fact, many experts are surprised at how a small country like Cuba, which has been subject to a commercial blockade for more than 50 years, and which in turn has also been affected by a series of devastating hurricanes in the last decade, has been able to:

- Succeed to resist multiple military, economic, and political attacks from one of the most powerful countries in the world.
- Maintain political stability and develop its socialist project, while all its former allies in Eastern Europe went bankrupt.
- Maintain one of the highest standards of social life, education, and healthcare worldwide with an average life expectancy of 80 years (baseline: 2013).
- Avoid extreme poverty and – different from the majority of countries in the Global South - shows less homeless inhabitants than some of the richest countries in the world. For example, you will not find any pavement dwellers like in many parts of the Americas or Asia.

All these achievements are perhaps customary to Cubans, who have never been confronted with a different situation. Someone from outside, however, may not be able to understand the Cuban phenomenon without knowing the historical context of the country, and the impact of global events. Therefore, at the outset, a set of national and international historical circumstances will be highlighted. Subsequently, we introduce the reader to the different periods of Cuban housing policies, which were based on different practical interpretations of the Cuban socialist economy.

Generally speaking, the Cuban revolutionary socio-economic models can be characterized as an expression of an idealistic political attitude (maximum social equity) until the collapse of the socialist bloc in Eastern Europe, and subsequently following a more pragmatic orientation by accepting partial redistribution through market mechanisms (focused on stimulating economic growth through material incentives) on one hand, and alternatively as adopting an experimental strategy (looking for a proper third way through innovative programs). This flexible Cuban strategy, and preparedness to learn from and correct mistakes, is one of the explanations why this country has been able to achieve and maintain most of the gains mentioned above – rather than sending the nation back to square one, as it happened in Eastern Europe. This opportunity was probably possible because Cuba had begun its revolution independently, and was only forced to become a soviet ally 3 years later, during the missile crisis in October 1962.

02 Regulatory and Legislative Framework for the Housing Sector¹

According to article 71 of the Cuban Constitution,² all persons have the right to an adequate home, a safe and healthy habitat. In the last instance, the state should guarantee, as far as possible, the provision of all basic needs, including housing, for the country's growing population, and involve the citizenry in the solution – and the benefits - its housing system. The necessary legal framework has been defined, and periodically updated to this end, by the nation's Constitution, Civil Code, general laws and decrees, norms and institutional resolutions.³ The National Housing Institute (INV) was given the responsibility to develop, administer, and guide this housing policy until its dissolution in 2014.⁴

The legal basis for the sector was set right after the revolution, in 1959, and defined in the Urban Reform Law. This focused on eliminating any possibility of real estate speculation and ending the scandalous dual housing standards which characterized the urban fabric in the past. The first legal adjustments in the housing

sector were made a few months after the victory of the revolution, including security of tenure, and the cutting of all rents by half, while substandard dwellings were exempt from any rent payments all together.⁵ For the residents living in the worst circumstances in 33 shantytowns, a construction program was initiated and offered almost 5000 new dwellings produced in a mutual aid program by the Ministry of Social Welfare. More impressive, however was Social Housing program providing about 10,000 of the best ever produced social housing units in just 2 years under the direction of the charismatic *Pastorita Nunez* who had previously fought with Fidel Castro rebels in the Sierra Maestra. These units, also referred to as *Pastorita's houses*, had been micro by the gains of the National Lottery until it was closed down by the revolutionary Government in 1961 – which also terminated this otherwise very successful housing program in 1962.⁶ Otherwise, the government prioritized housing in the rural zones, where the conditions were notoriously appalling before the revolution and where

¹ The most complete list of legal and otherwise related housing programs and efforts in Cuba from 1959 until the year 2000 can be considered: [Coyula 2000a]

² 'Article 71: The State recognizes the right to adequate housing and a safe and healthy home for all people' For a good summary of the Cuban constitution – including its most recent amendments of 2019 [CUBA 2019]

³ The fundamental legal provisions were set by the Urban Reform Law of 1960, the General Housing Law No. 48 of 1984 and its updating through the Housing Law No. 65 in 1989, as well as the most recent Decree Law No. 288 in 2011, which regulates the selling and buying of houses or apartments by Cuban citizens and permanent residents and guarantees the unrestricted choice of the place residence.

⁴ For the dissolution of the INV and transfer of responsibilities: [Havana Times 2014]

⁵ This and many subsequent references of this paper 'Housing in Cuba' were taken from a paper by the late Cuban Planner Mario Coyula (ca 2000), which is about the best summary of Cuban housing policies over the first 40 years after the revolution. A reprint may be found under [COYULA 2000b].

⁶ For an excellent documentation of the 'Pastorita' housing program see the thesis by Ruslan Muñoz Hernández and María Victoria Zardoya Loureda from 2015 "'Pastorita houses" in Havana. [HERNÁNDEZ, 2015a]



Social housing known as 'Casas Pastoritas' in East Havana, today known as 'Camilo Cienfuegos' neighbourhood. Built right after the revolution in 1959-1960, they are still considered the best mass housing scheme in Cuba – both in terms of architectural and living standards as well as in respect to the economic cost-benefit balance.

adequate accommodation was the principal incentive to stop, or at least reduce, migration into the cities. Until 1970, more than 40,000 houses were built in 214 new rural villages. Within the urban areas, the **Ministry of Construction** started a massive house building program with different standardized prototypes - obviously inspired by Soviet experts who showed constant presence in Cuba after the Missile crisis. Further below, we will come back to the technological and the urbanistic concepts behind this development.

In 1984, the General Housing Law defines legal framework for the implementation of the national housing policy following the above-mentioned basic housing rights.⁷ However, in order to reflect and respond to changing social, economic and cultural needs, the law was amended on not less than 12 occasions until today.⁸ The most important cornerstones of the law include:

- The responsibility of the state “to work towards ensuring that all families have access to a comfortable home” (Constitution of Cuba, Item 9c). Moreover, the state is required to actively engage with the population in solving the housing problem (Housing Act 1988).
- Home ownership for the vast majority of the population (Housing Law of 1984).
- Legally protected security of tenure, prohibiting any eviction without alternative accommodation.
- The only purpose of housing is to provide a home (as a basic need); housing for purposes of speculation or exploitation is prohibited in principle (but partially tolerated over the last

couple of years). In line with this principle, personal property is limited to one permanent dwelling per household (plus one holiday home outside the city). Furthermore, severe restrictions on rental housing were one of the first legal interventions after the Revolution⁹ – but exceptions have been granted with opening of the country for international tourism especially since 2013, when foreign visitors were specifically welcome as a contribution to the nation’s foreign currency income.

- Since 2011, the free purchase and sale of homes by nationals and permanent residents of Cuba, as well as the selection of the place of residence, is being allowed with certain restrictions.¹⁰

The practical results of the Cuban ‘Housing Revolution’ were highly impressive in its initial phase: right after the revolution, housing for all was a political priority and showed quick, though not sustainable, gains for the poor. State mass housing was of high quality - even by international standards. Unfortunately, it had to be drastically slowed down, but did not stop, due to US embargo, first imposed by the USA under Kennedy in 1962.

Over the years, maintenance of the growing state housing stock, in combination with the negligible rent levels, became a significant burden to the exchequer and induced radical changes in the sector as reflected in the Housing law of 1984¹¹: almost the entire state rental housing stock was privatized from one day to another, and passed into the ownership of former tenants without any (immediate) cost. The formal justification argued that, after 20 years, the construction costs had been paid off, anyway (while land remained in state property).

⁷ The Cuban Housing Law of 1984 (ley no. 65) has been updated several times. For a summary of the original contents and mayor modifications see [CUBA 1984]

⁸ These changes have been very clearly summarized in an interview with Santiago Herrera Linares [HERRERA LINARES, n.d.]: Hacemos Cuba | Transformaciones de la Política de la Vivienda en el país (Video).

⁹ Until 1984, when almost all renters became owners, regulatory rent was 10% of one’s income. Today, the average costs for housing is less because most owners are in debt on account of buying their home.

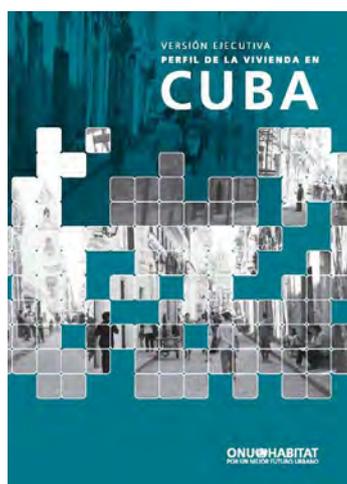
¹⁰ See article by Aline Marcondes Miglioli in this same TRIALOG journal issue

¹¹ Identified as ‘Ley No. 48, del 27.12.1984’(Ley General de la Vivienda). An overhaul of the law took place in 1988, but the name of the law remained identical.

In contrast to this top-down decision, which came as a surprise to the nation, another major housing reform which took off in 2011, after the adoption of new common development guidelines (*'lineamientos'*) set by Cuban Communist Party Congress meant to update the economic and social model of the country. These 'guidelines' were discussed and partly modified in extensive public consultation, in which several million citizens participated, and which resulted in the reformulation of about two-thirds of the 313 originally proposed draft guidelines.¹² Of particular importance to the future housing policies was the proposal of a shift in social responsibility and initiative from the central government to local levels¹³ of government and to the population itself.

UN-HABITAT's involvement in 2013,¹⁴ which facilitated the preparation of its CUBA HOUSING PROFILE, was intended to support the formulation of a new and comprehensive Housing

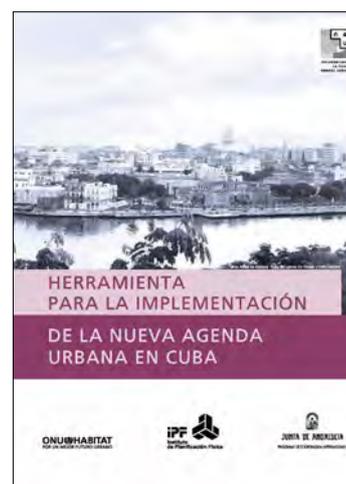
Law, which should substitute the 'classical' version of 1984 and its various amendments since then.¹⁵ But along with the decision to close down the National Housing Institute, and in consequence of the new and highly decentralized participatory legislation process, a complete overhaul of the National Housing Law was provisionally taken off the agenda. UN-HABITAT, having proclaimed its New Urban Agenda (the interpretation of the Sustainable Development Goals for the urban sector) during the 3rd Habitat Conference in Quito, shifted its engagements in Cuba towards promoting the New Urban Agenda in a series of 16 workshops in the different provinces, during which recommendations for desirable achievements were agreed upon.¹⁶ However, different from the 'Housing Profile', neither the known bottlenecks were analyzed, nor were specific strategies elaborated for overcoming them. Instead, only some amendments to the Cuban housing law from 1984 were published in 2017 and 2019.



Published Spanish version of the Cuba Housing Profile [Executive summary]



Research team for the elaboration of the UN-HABITAT Housing Profile on Cuba



UN-HABITAT guide for the implementation of the New Urban Agenda for Cuba

03 Principal Stakeholders in the Housing Sector

The social sectors involved in housing provision can be divided into the state (central and local levels), the private sector (families, businesses), and intermediate institutions (social-interest organizations, NGOs, certain types of cooperatives). In Cuba, the strongest actor in this context is the state, and after that, the family. Business enterprises and intermediate institutions occupy only a marginal role in this country. Only more recently, after direct transfer of houses between individuals has been legalized, some intermediate agencies have been officially recognized.¹⁷

After the victory of the Revolution in 1959, the central government was the only institution left which had the capacity to organize the reconstruction of the housing system, and it consciously accepted its responsibility to do so. Only in 1974, the local government was institutionalized in the form of the so called *Poder Popular* ("People's Power") and is part of the parliamentary system of Cuba. The first general elections were held in 1976 and created 196 provincial and 14 municipal assemblies,¹⁸ alongside with the National Assembly which is the legislative

¹² The Congress Party and its institutions are independent of the government and, therefore, can only suggest recommendations. However, as a majority of the members of the National Assembly (parliament) belong to the Party, these recommendations carry significant weight. Note that the process of consultation that evaluates every detail of a future course of policy manifest a much more democratic political process than the multi-party systems in countries that only allow a single option of 'yes' or 'no' for a party program.

¹³ This decentralization process was first tested in 3 provinces and showed mixed results: the local autonomy was not always welcome by the mayors, as they became accountable to their citizens while before they could blame Central Government for not providing sufficient funds.

¹⁴ See announcement of the Housing Profile in 'Urban Gateway': [UNHABITAT 2011]

¹⁵ 1988 (ley No. 65); 1998 (decreto-ley 185), 2003 (decreto-ley 233), 2011 (decreto-ley 288), 2016 (decreto-ley 322). A good and easily comprehensible summary of all amendments to housing law until 2018 has been provided by Santiago Herrera Linares in 2020. [HERRERA 2020].

¹⁶ [ONU HABITAT, 2018].

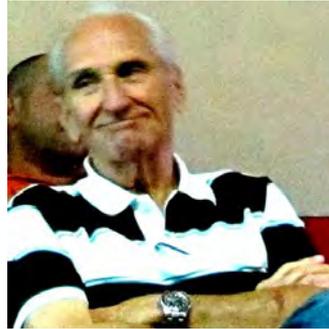
¹⁷ See paper by Aline Miglioli in this same TRIALOG volume.

¹⁸ Today, there are 168 municipalities with their own municipal assembly. The municipal assemblies are composed of delegates of the constituency (district) and are accountable to and revocable by their constituents.

Famous and not so famous Game Changers in Cuban Housing Policies



Pastorita Nunez (+). Member of the communist party before the revolution later joined the guerrillera led by Fidel Castro. After the victory of the revolution she was nominated director of the Instituto Nacional de Ahorro y Viviendas and ran Cuba's most admired housing program 1959-62, today known under her name.
(Photo: lajiribilla.co.cu)



Salvador Gomila (+) was the vice-president and director of Cuban Housing Institute from its beginning 1984 until about 2010 and was lead of the national expert team supporting the compilation of the Cuba Housing Profile.
(Photo: Silvia Matuk)



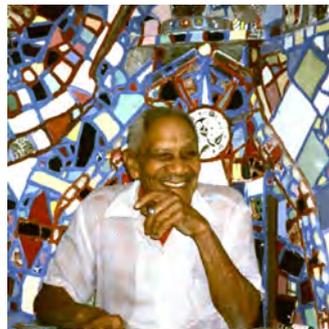
Selma Diaz (+), architect and sociologist, worked with Che Guevara in the Cuban Ministry of Planning. She was asked by Field Castro to select the architect for the 'most beautiful Arts school of the world and engaged Ricardo Porro. Later she was in charge of International relations of the INV until, in 1993, she founded the NGO Habitat Cuba
(Photo: Silvia Matuk)



Eusebio Leal Spengler (+) was nominated the city historian of Havana in 1967 and as such became a close friend of Fidel Castro. His lectures covered all: history, architecture, socialism, philosophy (recordings are still available).¹⁹ He started and managed the unique restoration program for Old Havana.
(Photo: Ariel Cecilio Lemus / Granma)



Construction Worker in the Social Microbrigade of la Guinera. As this brigade operated in a residential neighbour-hood, the majority of workers were women.



Self-Help builder (+) in the neighbourhood La Guinera. He decorated his house, including the afrocuban chapel (cuarto de santo) with broken ceramics.



Salvador Gonzalez Escalona, the artist who transformed an entire Street into an open sky gallery and organized afro-cuban concerts there regularly.



Self-employed artisan in the city of Palma Soriano. He produced artisanal tiles on order in a large variety of designs and colours.
(Foto: Silvia Matuk)

power of the nation. The electoral system was updated in 1992, now relying on the secret and direct vote of the delegates.

With the General Housing Law of 1984, the **National Housing Institute (INV)** was created as the key regulatory body of the housing system. It directed the policy and coordinated the activities of other state institutions within the housing sector. The INV operated at the central level and under double subordination as well at the local level (provinces and municipalities). The INV also supervised the Community Architects Program (PAC), which caters to self-builders (the private sector). The coordination of housing involvement by the different public institutions under the direction of the INV is commonly known as the "Housing System" in Cuba.

Since 2011, the National Housing Institute entered a reorganization process in which initially, the institute itself was physically integrated into the **Ministry of Construction**; while some of its previous responsibilities have been transferred to other state bodies

– like the **Physical Planning Institute (IPF)**. Naturally, this institutional fragmentation is less than conducive for the development of integrated solutions - typically needed solving complex issues such as the housing problem. By January 2015, INV had been dissolved completely and most of its remaining functions remained with the Ministry of Construction, apart from more specialized responsibilities remaining with the National Institute for Physical Planning (IPF), the Ministry of Labour and Social Security and other central government bodies.²⁰

Other **Ministries** and **Administrative Organizations of the Central Government (OACE)** have always played specific roles in the production and management of housing. For example: they may be contracted to construct housing for the Government, thus allowing more flexibility within the state housing sector. Some municipalities maintain production units for the supply of construction materials in order to complement the limited allocation of materials by the central government, and to assist the

¹⁹ Sample of one of Eusebio Leal's conferences: About the foundation of universities: [CUBADEBATE 2018]

²⁰ [SIEMPRE CUBANOS 2014]

self-build construction activities by the local population. However, the municipalities normally do not maintain their own construction companies nor architects and engineers' offices but, with the disappearance of the INV, could potentially assume an active role in social housing provision.

The **private sector** mostly participates in housing production through individual self-help activities (*officially referred to 'construcción por esfuerzo propio'*), as it always did, although its important contribution to the national housing stock was only formally recognized and promoted through the Housing Act of 1984. With the changes initiated after the 6th Congress of the CCP in 2011, the private sector has been acknowledged to remain the principal producer of housing. Apart from the engagement of self-builders, this should happen through individual constructors and building cooperatives. Their field of operation is hardly regulated but will, sooner or later, require adequate norms, safeguards and guarantees in terms of accounting and quality. Individuals may also produce various building components and furniture. But surprisingly, the profession of the independent architect has not yet been legally introduced;²¹ although some qualified architects overcome this limitation and formally register as building constructors

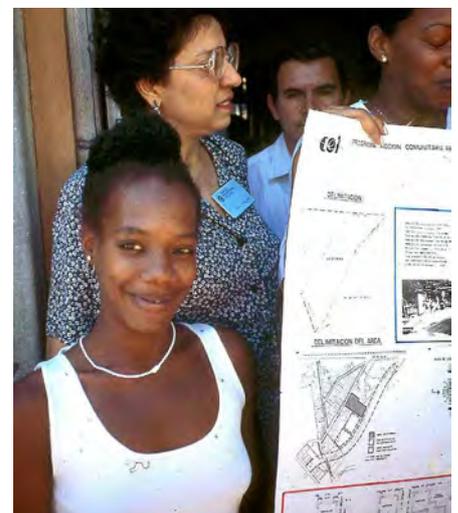
or interior designers which allows them to make full use of their professional skills.

As one could imagine, the newly created arena for the private sector has led to visible construction activities in the field of repairs, renovation, and the improvement of the housing stock. However, the incentives for new housing construction seem not to be attractive enough to stipulate massive production of new dwellings and to impact on the unsatisfied housing demand. Major bottlenecks for expanding the sector include the sparse supply of urban building plots, affordable building materials, and access to grants and credits.

Since the 1970s (and again very recently), an interesting cooperation combining inputs by the state and the population as well, has developed under the name of "*microbrigades*"²² and contributed an important share to the national housing stock. The *microbrigades* (described in greater detail further below) can be interpreted as a form of state assisted and collective self-help housing, which exploits the benefits of this social form of collective production and overcomes the inherent limitation of self-help housing by benefitting only those who are capable of helping themselves



NGO Houses provided through the highly successful NGO 'Habitat Cuba' – winner of the World Habitat Award 2002. (Photo: Adriana Rabinovitch)²³



Soil Cement houses built by the NGO 'Cieri' close to the Colon Cemetery in the early 1990's.]



Spontaneous neighbourhood animation in the Callejon de Hamel, led by the spiritually inspired painter Salvador in Centro Habana. See also TRI-ALOG cover photograph.



'Tradition Alley' in the city of Matanzas, led by the architect and city historian Rubier Bernabeu Garcia (photographer: unknown)

²¹ Only in 2021, a group of Cuban architects publicly organized to claim back their historical right to work independently, and decided on Facebook to be the appropriate medium: [PERIODIGO CUBANO 2021].

²² [MATHEY 1989a] Mathey, K. Microbrigadas in Cuba.

²³ A fair assessment of Habitat Cuba's work can be found in the article 'Los intereses sectoriales de la vivienda social en Cuba' by Adriana Rabinovic [RABINOVIC 2010]

anyway – while leaving the most needy ones behind.²⁴ One of UN-HABITAT's Housing Profile findings in 2013 was that, in spite of their acknowledged limitations in the economic climate at that time, the *microbrigade system* still received a significant consent from the population. Most of their inherent benefits²⁵ could certainly be revived in some form of a cooperative modality of housing provision in the future. Whether this finding of the Housing Profile had an influence or not, in the 2019 Adjustment of National Housing Law,²⁶ the *'forgotten'* Microbrigades were reborn and listed first (followed by state-built, cooperatives and individual Self-Help) of the four pillars of current housing provision in Cuba.

It deserves to be mentioned that **non-governmental agencies** are not considered as potential contributors in recent legislation, although at the beginning of the "Special Period",²⁷ some of those organizations have been welcome pioneers in community-based coproduction of housing in the extreme crisis

after the collapse of the socialist block in eastern Europe. Most noteworthy were, among others, Habitat Cuba (founded 1993 by Selma Diaz)²⁸,²⁹ the Martin Luther King Center, and CIERIC³⁰. Lacking sufficient support and acknowledgement on behalf of the state, most of these organizations faced difficulties with the authorities and none of them play a significant role in Cuban housing provision today. Only the figure of the 'Community Architects', who were the moderators of the participatory design process in HABITAT CUBA, was adapted by the government to advise self-builders mostly on administrative issues in subsequent years.

However, there are some semi-formal neighbourhood initiatives emerging with fresh ideas (like the Barrio del Peluquero in Matanzas) which could play a constructive role either in the preservation or qualitative improvement of housing and the wider habitat in the future.

04 Production and Supply of Housing

Housing construction

Since the triumph of the Revolution 1959, housing in Cuba has been produced by three providers: the state, the population, and to a lesser extent the agricultural cooperatives from 1990s onwards. Accounts of the relative contribution of each provider differ depending on the source of information. Specifically, with regard to self-constructed buildings, the differences between the accounts of the Institute of Statistics, the National Housing Institute INV, and the Savings Bank are significant: the reported numbers differ between zero and 25,000 units per year for the first half of the 1970s, whereas ten years later the numbers oscillate between 12,000 and 55,000 units per year.

The apparently most reliable figures on the period 1960-1984 indicate that **state production** represents between 30% and 50% of the total production – which is the highest in the Americas. Notable are the above-mentioned periods of intensive construction activity from 1959 to 1961 (*Repartos Pastorita*), 1971 to 1976 (*Microbrigadas de Trabajo*), 1980 to 1986 (industrialized production), 1987 to 1990 (social microbrigades), and 1997 to 2001 (building with local and alternative materials). From 2006 onwards, a concerted effort by several ministries allowed for a stable production of around 30,000 homes per year.

In the "private" or "self-built" sector, at least three periods of intense production are noted. The first boom period occurred after the institutionalization of self-building through the General Housing Law of 1984, when the number of newly registered dwellings jumped from 11,000 to over 40,000 completed homes within one year. The higher one of both numbers includes an estimated average of illegal constructions in the previous years and indicate a rather stable production over the years. More

surprising, however, is the apparent decline in self-built constructions recorded two years later, with numbers only amounting to 10,000 homes per year, possibly because the reserves of available building materials had been exhausted. Another reason may have been the growing movement of *Social Microbrigades* at this time, which offered an attractive alternative to individual self-construction.

Another wave of self-construction started from 1996 onward, when individuals began to build homes in similar quantities as the state provided, with 25,000 to 30,000 units annually. Part of this new increase can be attributed to the so called "Popular Movement" (*Movimiento Popular*) – although this bottom-up initiative was not widespread enough to influence the numbers until after 2000 (see further below).

In 2003/2004, construction activity in both (private and state) sectors dramatically dropped to less than 10,000 completed units each. The cause of this recession is largely unknown, but one reason may be the political shift at that time, known as the "Battle of Ideas", which not only tightened all foreign currency transactions but also blocked all market-oriented initiatives.

Finally, in 2006, the third and most spectacular wave of housing production was recorded, with 110,000 houses being completed in one year: 77,800 of such homes were self-constructed (one year later, the figures dropped to half that amount again). The explanation for this surge could be the political initiative to push for the completion of the thousands of unfinished projects – in many cases, only the completion certificate was missing which made it to let such a house appear in the statistics.

²⁴ See a series of publications of this paper's author in the 1980's and 1990's: [MATHEY 1989b, 1991, 1993]:

²⁵ Integration of differentiated skills of the members, mutual aid, systematization of the labour process, more inclusive distribution of the created accommodation compared to self-build construction.

²⁶ [CUBA 2017] LEY No. 65 (Ley General de la Vivienda, Article 1, Chapter 1).

²⁷ The Periodo Especial ("Special Period") was an economic emergency plan after the collapse of the socialist governments in Eastern Europe at the beginning of the 1990s, which also ended preferential terms of trade with those countries.

²⁸ [GARCIA 1999]

²⁹ Habitat Cuba's Community Architects Program was winner of the World Habitat Awards in 2002.[HABITAT AWARDS 2002]

³⁰ CIERIC = Centro de Intercambio y Referencia-Iniciativa Comunitaria or the Community Exchange and Reference Initiative.

In conclusion, since 1960, a steady increase in housing production (in both main sectors) can be observed. Occasional periods of very intensive housing production can be linked to the launch of innovative housing programs. Although the numbers and quality of apartment buildings built since the Revolution are impressive, they are not high enough to offset the losses in the existing housing stock and the growth in housing demand. For this reason, it seems useful to thoroughly analyze the shortcomings both in total and inherent to the different modes of production before comparing the possibilities for overcoming these limitations.

The state mode of production

Almost all urban housing units built by the state were flats in multi-storey buildings, which are expensive in terms of construction, but – as subsidized housing – are economically accessible to the entire population. However, the number of units naturally depends on the allocation of funds by the central government (Ministry of Economy and Planning) and their total volume, as well as the special distribution, follows national economic priorities. At the local level, the ability to influence the amount of investment in such housing is very limited. Following the recommendations (*'lineamientos'*) the 6th Party Congress in 2011, there have been experiments to encourage self-financing ventures by the local authorities, but after 50 years of central allocation, this requires considerable re-thinking within the public service. There is still space for local officials to better exploit such opportunities.

Most of the apartments built by the Ministry of Construction follow a typical design that leaves little chance to adjust to demographic changes, to the specific urban context, or the preferences



Standard mass housing system being built on virgin land.



Standard mass housing system being built on virgin land.

of the inhabitants. Other ministries are more flexible in respect to the design and budget - which generally results in better quality of the results. Almost all the houses built by the Ministry of Construction are administered by its General Housing Directorate – partially substituting the previous National Housing Institute.

Social production of habitation by the collective construction sector

The above already mentioned *microbrigade* buildings were developed from 1970 onwards, and employed staff from different offices or factories that were left without work as a result of the blockade imposed by the US after the missile crisis. In other countries their staff and workers would just be dismissed and ended up on the streets, hungry and eventually also without homes. However, for the socialist government in Cuba that was not an option and would have created chaos - which precisely was the intention of the embargo. Knowing that housing construction is an excellent economic accelerator (which has been proved in Germany in the 1950s and 60s) and requires mostly national inputs, a massive house building program was introduced in Cuba and staffed by the enterprises of ministries' underemployed workers.

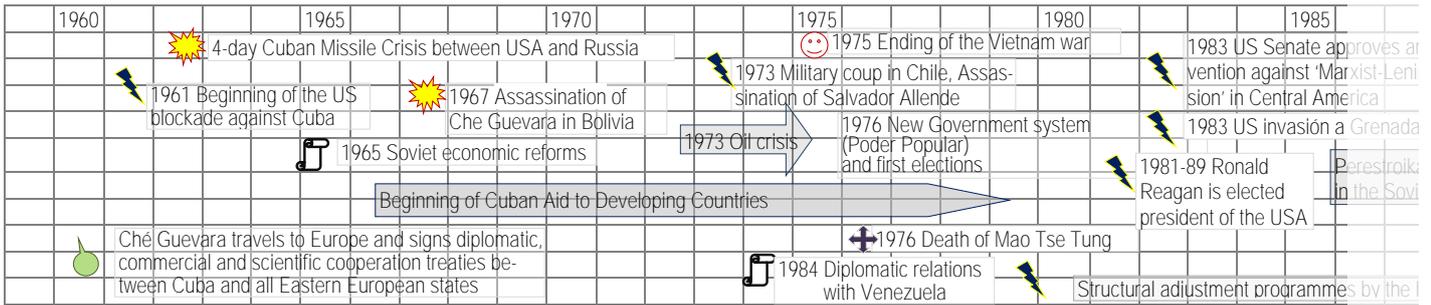
When Cuba managed to recover from the first impact of the embargo and production units resumed work with raw material imported from Eastern Europe, these work-placed microbrigades were phased out step-by-step, since the workers were now needed again in their original workplaces. But the experience with the microbrigades had been impressive in terms of numbers and work efficiency and became an inspiration for a new variety of microbrigades by the mid 1980's, and which became known as 'Social microbrigades'. The main difference to the old microbrigades was the recruitment of the work force from among the residents living in the same neighbourhood, instead of the staff of a factory a ministry or other over-staffed institution. In these mostly peripheral neighbourhoods lived women who did not want to commute to the town centre (in the case of Havana) and were maybe only available part time.

Apart from the urban periphery, Social Microbrigades were also started in the centre of Havana, where reconstruction of collapsed houses and small construction sites did not allow the implantation of huge standard housing blocks – which was the building solution preferred by the Ministry of Construction but required huge building sites. This new approach experienced an involuntary end with collapse of the socialist Block in Eastern Europe after 1990, which caused a sudden and severe economic crisis in Cuba. The very last 'Social Microbrigade' units were completed in 2013.

Microbrigades can be characterized as a cooperative "public-private" mode of production, sponsored by the state. The system was born in specific the economic and social context of the country at that time, which is totally different today. Microbrigades still form part of the identity of many Cubans: in the survey conducted for this UN-HABITAT Housing Profile on Cuba, 86% of respondents were in favour of continuing this important *organizational experience* in one way or another. However, only 2% of the interviewed favored the physical *type of housing* that had been built by the Microbrigades! The revival of some of the ideas of the Microbrigades is worth considering – and in fact. The 1019 amendment to the Housing Law stipulates a massive revival or Microbrigade housing provision.

Another well-received experience of a collective initiative was the "Popular Movement" (*Movimiento Popular*), a municipal initiative born in the East of the country in 1996 to provide construction

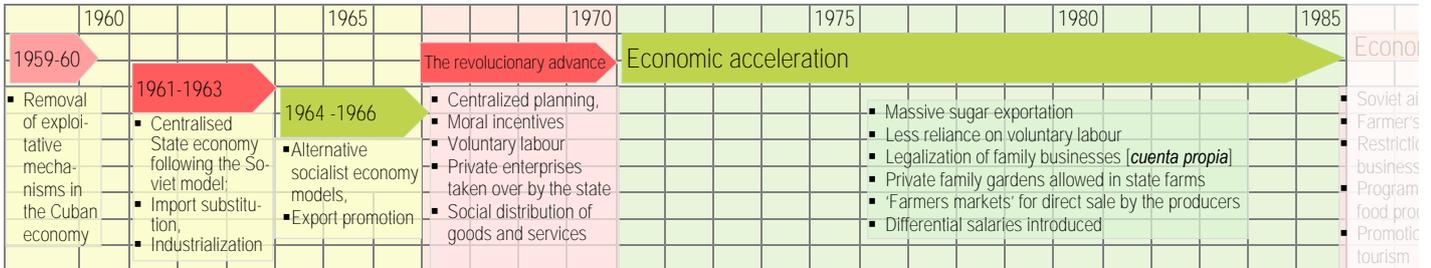
HISTORY OF CUBAN HOUSING POLICIES



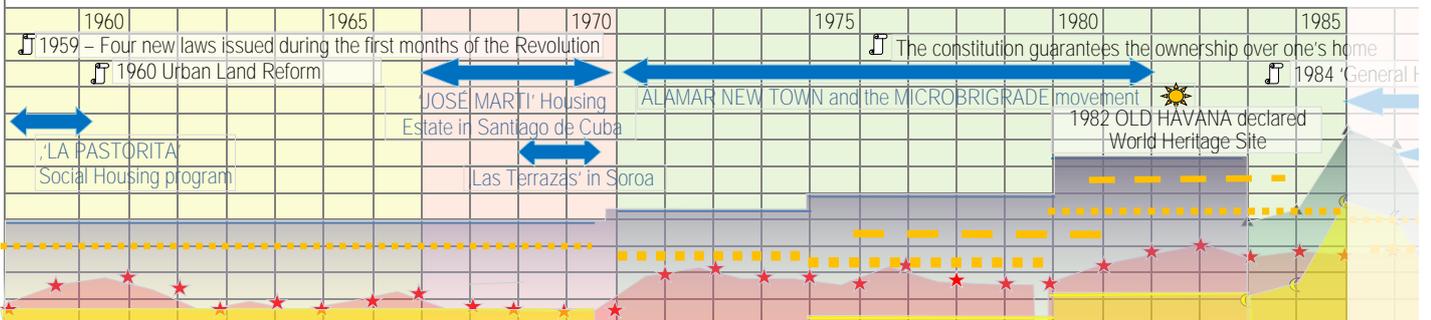
CUBAN POLITICS & EVENTS



ECONOMY



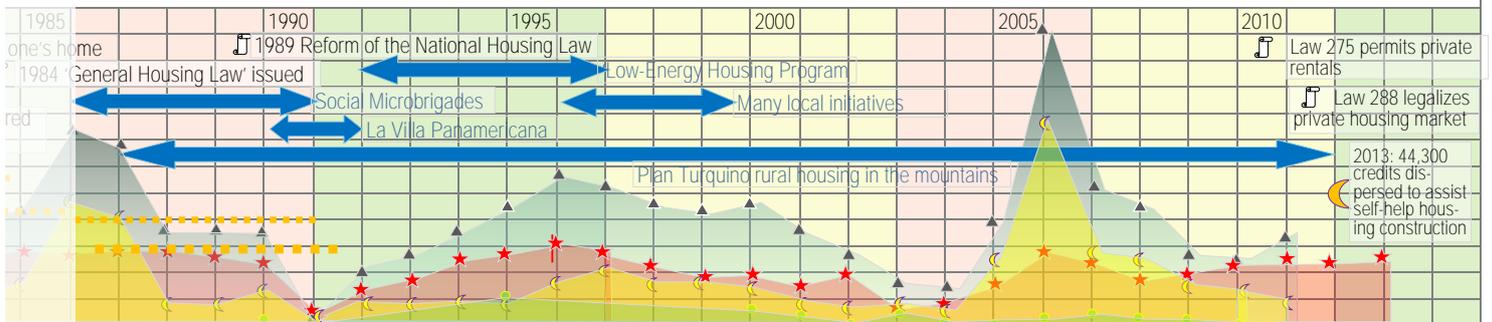
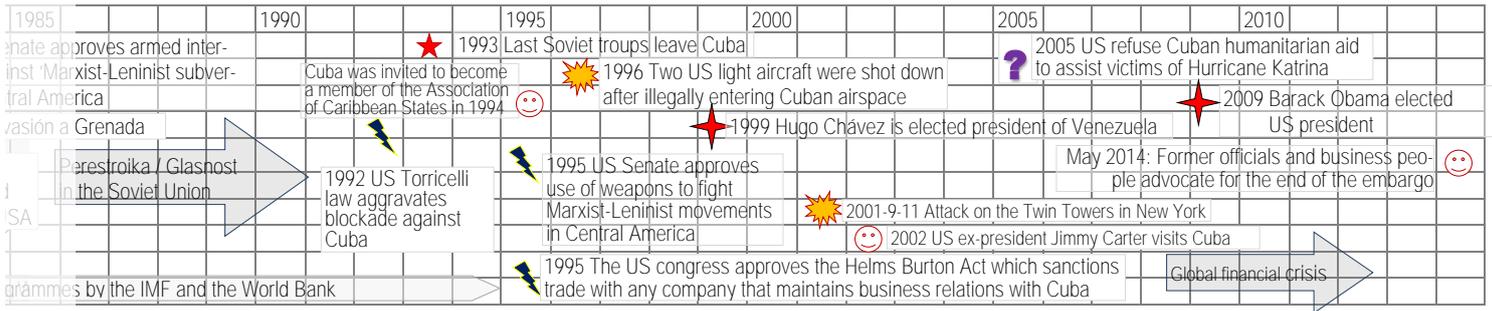
HOUSING POLICIES & KEY PROJECTS



LEGEND

Government-built housing [ONE, INV]	Prevailing economic policy trends within Cuba	
Self-help housing construction [INV]	Period with experimental tendencies	
Rural 'Farmers' cooperatives housing [ONE]	Period of idealistic tendencies	
Cumulative figure of all housing sectors	Period of rather pragmatic approach	

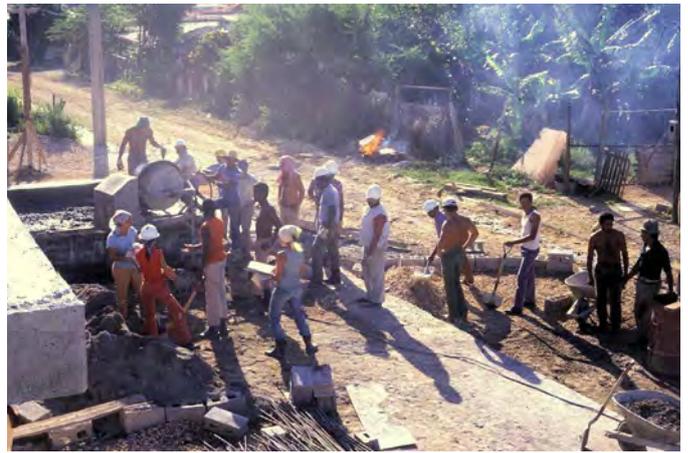
IN THE NATIONAL AND INTERNATIONAL CONTEXT



	Innovative housing programs	Sources: [HAMBERG 1990], [MATHEY 1993], [MATHEY 1997], [MELBIS 2012], [MESA LAGO / PEREZ-LOPEZ 2013], [ONEI] Idea and preparation of the table: © Kosta Mathéy
	Conservative estimate	
	Optimistic estimate	
	Historical events	



The conventional Microbrigade was composed of workers from state enterprise – in this case all women belonging to a shoe factory.



The Social Microbrigade was composed of volunteers from a residential neighbourhood, here the Barrio La Guinera in Havana

materials to individual families; this initiative produced a minimum of 25,000 homes. The Popular Movement was a good example of a genuine, local government program anticipating (or inspiring?) the guidelines of the 6th Congress of the PCC.

Self-Help Housing

A self-constructed house (which in Cuba is known as *construcción por esfuerzo propio*) typically is a detached house with a slab roof, based on the principle of incremental development which allows the addition of other dwellings on top of the ground floor unit. The construction process can take a long time, often 5 to 10 years.

The major difficulties encountered by the self-builders include access to serviced land and provision of construction materials (the latter nowadays not only because of the limited supply but also due to the high price of materials relative to wages). The extensive administrative procedures represent another significant impediment. The Program of Community Architects (PAC)³¹ is there to assist in the required documentation process, but among the individuals who had chosen self-construction and were interviewed by UN-HABITAT, a community architect was consulted in only 20% of cases. The technical support provided by the municipality was valued “good” or “regular” by 50% of the self-builders.



‘Designed’ Self-Help Housing in la Habana province



Incremental Self-Help Housing in Santiago de Cuba



Personalized Interior by a self-builder in La Guinera, La Habana



The inclined column: a favourite feature in Cuban self-help housing.



Access to the upper floor in self-built housing, Cuba



Adventurous Self-Help architectural design in Cerro, La Habana. Photo: Erich Trefftz



Informal sector housing development in La Lisa (Havana)



Squatter housing in Eastern Cuba. Photo: Silvia Matuk.

Only a limited number of architects are licensed to provide these services to the community while their preparation and qualification for the task remain untransparent.

In the survey conducted for this study, 83% of all respondents considered self-construction as a “difficult” process. Nevertheless, 38% considered participation in a self-construction project as a possible option to improve their housing situation – especially by those who were between 25 and 55 years of age. In conclusion, to solve housing needs, housing provision outside the state sector was considered a realistic opportunity by more than 62% of the population: predominantly young people up to age of 25 (typically those who do not yet have their own family), but also the older generation, from age 55 onward, preferred such housing. In group discussions, there was a certain consensus that, in order to assist those individuals willing to construct their own home, it would help to either facilitate access to building lots or to reduce the construction period for the private sector, so as to expedite the delivery of necessary housing.

The informal sector

In Cuba, informal settlements, which were a dominant feature prior to Revolution, are not numerous any more today, and had even almost disappeared completely until the beginning of the “Special Period” (1990). By 2012, about 105,000 homes were

registered again as forming part of “unhealthy neighbourhoods” (*focos y barrios insalubres*). But it should be mentioned, too, that most of the constructions in these neighbourhoods would be considered acceptable housing in many other Latin American countries. Another important difference to those countries is that in Cuba, the population living in these neighbourhoods have equal access to all social services such as education, health, books, food, water and electricity; and that they are neither socially stigmatized nor otherwise excluded – you may even encounter airline pilots living here!

Rural housing

The traditional dwelling in rural areas is the *Bohío*, a construction of local materials, and, in the worst case, with a dirt floor. The revolutionary administration considered them to represent a symbol of slavery and, due to this negative connotation, one of the promises of the Revolution was to abolish *all Bohíos* in the country once and for ever. Fortunately, this promise has not been completely successful, as the *Bohío* remains an existing housing typology and is appreciated by many farmers because it corresponds to their tradition, proximity to the fields and good indoor climate. Furthermore, it is better suited to the local weather conditions than the apartments or prefabricated bungalows offered by the government. Relocation into modern multistorey apartment buildings was generally disliked by the ‘beneficiaries.’³²



Classical rural housing, known as ‘Bohío’. (Drawing: Michael Wilkens)



Modern housing typology transplanted into the countryside.

³¹ The program of community architects was initially introduced by the NGO HABITAT CUBA but taken over by the state after the enforced closure of that organization.

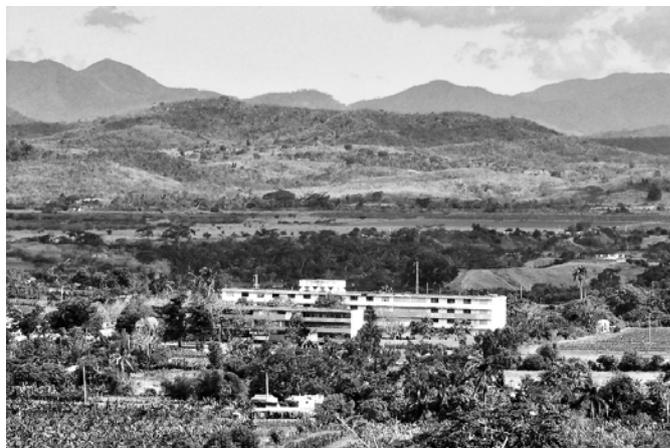
³² A good example has been described by Elettra Griesi in TRIALOG 123, pp. 31-39. [GRISI 2015]

In line with certain political priorities, such as the move for food self-sufficiency or the strategic control of deserted mountain regions, several programs have been launched to raise the quality of rural housing including, among others, the *Plan Turquino*,³³ the transformation of former country schools³⁴ into apartments, or the Youth Employment Initiative. As a result, the quality of life across the country has visibly improved, narrowing the notorious

service gap between city and countryside. This improved economic outlook has even motivated a considerable number of urban residents to move to the countryside and join a cooperative. However, the expected economic success has not always realized in practice: 295 Basic Units of Cooperative Production (new villages, known as UBPCs) were dissolved again since August 2012 for failure to repay the loans they had received 5 years earlier.



New village built as part of the Plan Turquino in Eastern Cuba (Photo provided by Milagros López)



Former 'Escuela de Campo' now subdivided into apartments close to Palma Soriano

05 Characteristics of the Housing Stock

According to the census of 2012 (the most recent available one), Cuba's 11,167,325 inhabitants occupy 3,931,643 homes – or 2.84 persons per household. Of course, the statistical distribution is only a general indicator and differs from place to place: according to a survey by the National Office of Statistics, 606,000 households live in dwellings that have more rooms than theoretically needed, while 256,500 households show indicators of overcrowding and need extra space. There are no homeless people, but 7,000 families (21,000 people) live in emergency shelters,

known as *albergues*. Seventy-five percent of all dwellings are located in urban areas.

According to the census, sixty-five percent of all homes were classified as being in good structural condition, 20% in fair condition, and 15% in poor condition; but this classification does not always coincide with the valuation of its residents (in the survey done in preparation of the *Perfil de la Vivienda* for UN-HABITAT, the figures were 41%, 33%, and 26% respectively).³⁵



Traditional Rancho hut "Bohio" in the Cuban countryside. (Photo: Silvia Matuk)



Workers' housing in 'Reparto Capri' - La 'Pastorita' program, 1960 (Source: Fototeca del Nacional de Cuba)



State built industrialized housing usually is limited to a few standard plans and at least partially prefabricated. Here: in Central Havana.



Typical Microbrigade housing block

33 The Plan Turquino, which began in 1987, aimed at the sustainable and integrated development plan for Cuban's mountainous regions in the central and Eastern parts of the island. Main instruments were economic and ecological measures, but also a larger number of new settlements.

34 In the Cuban country schools, entire classes had been temporarily transferred from the cities to modern school buildings in the countryside for a limited period of typically 45 days where classroom study and an agricultural work in the fields alternated. Some of these were highly equipped model schools for future artists, musicians and international scholarship holders. Because of the high cost to country they were discontinued in the early 2010's, and some of them converted into housing.

35 There also exists an alternative official system to classify the quality of a dwelling applying a range of I to VII in which reference is made to the type of construction materials used; here, type I is considered to be the best. The origin and utility of such a classification is unknown and has often been questioned.



Neo classical architecture in Centro Habana.



Self-Help Housing ('Esfuerzo Propio')



Urban periphery, Havana



Villa in Siboney, Santiago de Cuba,

Terminology of Substandard Housing in Havana

Cuartería: A collective sub-standard housing type, usually involving a former abandoned mansion subdivided by rooms, one family per room. Residents initially shared common bathrooms, toilets and kitchens, but in time many brought these functions within their own domain, either by addition or subdivision. Generally, these interventions were makeshift and contributed to aggravate natural ventilation and lighting, and also distort the architectural and urban image.

Foco insalubre: Cluster of precarious dwellings similar to barrios insalubres, but with less than 50 dwellings.

Ciudadela: Another type of sub-standard collective speculative housing type, conceived like that from the very beginning. They usually appear in the inner city, adapting to its narrow, deep lots. A single or double line of rooms, one or two floors; one family per room, develop along a narrow court with collective bathrooms, toilets and kitchens at the bottom. As in cuarterías, most residents end up building their own facilities into their rooms, but worsening natural ventilation and lighting. Both types, cuarterías and Ciudadela, appear mainly in the central city and were the dominant type of housing for the urban poor, with a strong presence of Afro-Cuban religion and culture (especially dance and music), lack of privacy, noise but a strong sense of solidarity among neighbours. Sometimes the front rooms have direct access from the street (so they are called *accesorias*) and have slightly better living conditions.



Ciudadela or Cuartería in centro Habana

Casa de vecindad is a smaller subdivided house, generally with 12 rooms or less.

Pasaje: An improved version of *ciudadela*, where each family has a very small apartment (living-dining, bedroom, bathroom, kitchenette and a minimum laundry court. Units form a single or double row along a narrow central public court, that often opens into two streets. Access to the units is through that court, which in fact perform as an alley.

Solar is the popular term to refer to all forms of buildings subdivided into single-room units, usually with shared services.



Barbacoa: A native Cuban word designating a makeshift loft, usually self-built with scraps of wood and metal. Barbacoas use the traditional high ceilings in old buildings at the central city to create extra liveable space. They usually violate many building regulations, are hazardous, hot, uncomfortable and distort the facades and the streetscape. Many barbacoas end in time as a solid

structure, thus eliminating some of its flaws at the expense of making others more permanent.



Caseta in Centro Habana

Casetas: Shacks usually built in the flat roofs (*azoteas*) at the central city. As barbacoas, they often start with leftover materials and improve gradually until some become regular dwellings. They have the advantage over the ciudadelas, cuarterías and barbacoas of good views and ventilation. But they often violate the codes and the rights of other neighbours, accelerate leaks from the roofs, and make illegal sewer connections to the rain water collection system.

Locales: As the housing deficit kept increasing and the former dense commercial network of the central city became void of functions, many vacant former shops, stores and even garages were given away free to citizens in sharp need of a dwelling. Often, the adaptations would not solve acute problems of privacy, adequate natural lighting and ventilation, or even major structural problems



Locales. (Photo: Erich Trefftz)

in the building. They also destroyed the image of the central city in its most conspicuous aspect, at street level and corners. To make things worse, kiosks were later planted in front of the former shops, and many residents tried to take profit of their centric location and started to sell homemade food and beverages. All this contributed to the visual and functional degradation of the inner city and its former commercial arteries.

Barrio insalubre: Shantytowns, formerly called in Cuba *barrios marginales* (marginal neighbourhoods) because its population was mainly marginal*. They are located mostly at the urban periphery or interstices, close to rivers and creeks, railroad tracks, cemeteries and other non-attractive or dangerous locations. Sanitary conditions are very poor, most residents are migrants from rural



'Barrio insalubre' in Santiago de Cuba

areas, dwellings are predominantly makeshift and there are many social problems derived from promiscuity and bad habits. Against conventional wisdom, many residents do not arrive directly from the countryside, but "rebound" from other neighbourhoods and smaller cities. On the other hand, they usually have access to water and electricity supply, though no wastewater treatment; and, are covered by the State health and education network.

List compiled from COYULA n.d. and ALVA 2019.

06 Maintenance, Conservation, and Rehabilitation Fund

In Cuba, lack of maintenance of the housing stock represents a problem even greater than the deficit of housing units, but is certainly responsible for a large part of the deficit. In 2008, the INV reported that 85% of all buildings with more than 3 floors required basic repairs. The last census (2012) revealed water infiltration in almost half of all households in the country. It is interesting to note that 42% of all structural problems occur in homes built before 1959. Among the buildings erected between 1959 and 1990, only 7% to 9% of the buildings show construction problems, while constructions during the subsequent Special Period (1990-2001) show even more faults (14%) – although far less than the newer houses built after 2002! (These new constructions were rated as “poor quality” by 22% of the population.)

The causes of the poor state of repair are numerous and usually overlapping: the age of construction; use of inappropriate materials in the original construction or renovation; climatic effects (especially high humidity); high intensity of use; and above all, lack of regular maintenance. The maintenance problem is largely due to the scarcity of suitable materials and the high cost of such materials compared to the salaries of homeowners.

The responsibility for maintaining a home depends on the type of construction. In homes and buildings of up to 3 floors, the responsibility for all repairs and maintenance falls upon the individual owners. In multi-family buildings, the owner-residents are only responsible for repairs inside the dwelling, while the outside of the building – facade, roof and collective spaces, including the elevators – must be taken care of by the municipality (which, however, lack staff, equipment, or materials). Other common parts – such as stairs, gardens, garages, and pipe work – fall on of the residents

committee, which is supposed to maintain a repairs fund fed by contributions from owners to pay for the involved expenses (like in the case of condominiums in most countries).

The inadequate maintenance primarily impacts the health of the inhabitants (death in cases where the building collapses, respiratory problems on account of humidity, insomnia) and the dwelling’s constructive substance. In 2008, an average of 3 buildings collapsed in Old Havana every day! Other negative impacts relate to social aspects, such as poor quality of life, overcrowding, and many effectless complaints to the public administration and government. Finally, the material loss of cultural heritage is substantial in the case of individual buildings or grown neighbourhoods. This does not only affect colonial architecture but also extends to prime works of Art Deco and modernism of which a high concentration can be found in Cuba.

Heritage Conservation

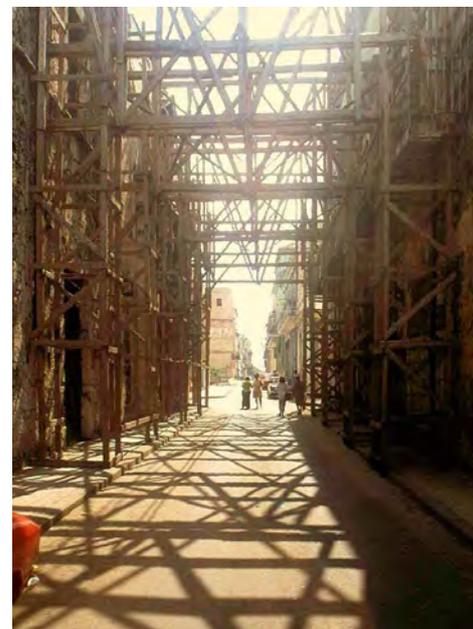
There are, however, some notable experiences of conservation and renewal of the housing stock in Cuba, though these are still isolated. One example is in Havana, where the Office of the Capital Historian Office (IHC) embarked on a comprehensive conservation program concentrating on Old Havana ³⁶ and the Malecón (the promenade along the sea shore). The late City Historian Eusebio Leal ³⁷ was able to refinance these works through coupling it with profitable in touristic amenities in the historic centre (mostly hotels and restaurants) – a recipe which was later successfully copied by the Chinese enclave who created a highly visited China town close-by in the early 2000s. ³⁸ This venture was also self-financing, whereby the Chinese businessmen paid a certain percentage of their income as tax to the government. ³⁹



Collapsed house



Decay of the historic urban texture in Old Havana



Securing existing facades before reconstruction in Old Havana

³⁶ This program focused on the areas of Old Havana, the Malecón, and China Town in the nation’s capital. Similar programs have also been installed in Santiago de Cuba and in the city of Trinidad.

³⁷ Eusebio Leal Spengler, Historian of Havana, 1942-2020. For more details: [GRANT 2020]

³⁸ The history of the Chinese Community in Havana has been well documented in a paper by See Kathleen López [LOPEZ n.d], and in a photo documentary by Lulu Yao Gioiello and Sean Alexander Geraghty [GIOIELLO 2019]

Nevertheless, it seems that this 'semi-autonomous' community ran into problems with the authorities, as 10 years later most shops and restaurants had folded down. Another state induced renovation of the Chinese quarter was included in another urban renovation program to celebrate the 500th anniversary of the city of Havana in December 2019.

Unfortunately, the successful Renovation Program of the City Historian's Office had to slow down after the management of the touristic enterprises through *Habaguanex Tourist Company*, founded in 1994 and which made the entire restoration program of Old Havana self-financing, was taken away from this office and entrusted to the Armed Forces in 2016 – an institution that was particularly known as a sensitive curator of cultural heritage before. This process in which a reputable and economically sustainable initiative raises the appetite of newcomers for a sly takeover – rather than inventing their own unique venture from scratch – happens all over the world and in all branches, including the academic publication sector.

Finally, it should be pointed out that the Restoration program for the historic parts of Havana was integral and not specifically oriented to the tourist industry. Other parts of the program included an anti-gentrification investments like new social housing in the prestigious Plaza Vieja for local residents whose former homes had collapsed, new schools and care institutions, or the opening of a multi-disciplinary academy for heritage conservation.

Escuelas Talleres

Since 1992, the first artisan school (*escuelas talleres*), was started and was soon acknowledged a "best practice" initiative. Here, local unemployed young men and women are trained in a wider range of techniques for the renovation of historic buildings and which, due to the patronage of the city historian's office, also assures them an income-earning employment at the end of their studies.⁴⁰ They follow an integrative approach by combining skills of a builder, carpentry, architecture, archeology, ceramics, glassworks, masonry, decoration, electricians, gardening, ironworks, painting, plaster modelling, restoration in general.⁴¹

Upgrading of the Housing Stock

A large number of families in Cuba lived in the same neighbourhood and even dwelling for generations. Even if the living space may be very reduced, they prefer to remain in the same location rather than moving into a new flat in the periphery – especially in the case of *Centro Havana*, probably Cuba's highest concentration of substandard housing. In any case, ventilation and sanitation can be improved, sometimes a second floor can be added in the typical alleyways inside the blocks. One of the first buildings to be rehabilitated was a workers' tenement in Calle Espada, which received funding from OXFAM, and even a few German ASA grant holders took part in the works. In 1995, an entire block in the neighbourhood of Cayo Hueso, also located in central Havana, benefited from a comprehensive conservation program that also included some social work.



Reconstruction of historic structure in Old Havana



The sea side promenade, called 'Malecon' forms part of humanity' Cultural Heritage



The small town of Trinidad is recognized as Cultural Heritage and employs a 'City Historian' like Havana and Santiago de Cuba.



Heritage conservation requires specially trained artisans in multiple disciplines, for which several schools were opened



Almost all buildings around the Plaza Vieja were dilapidated and have been restored offering apartments for the displaced families



China Town forms part of Old Havana and was coming back to (commercial) life being in Havana since about 2000

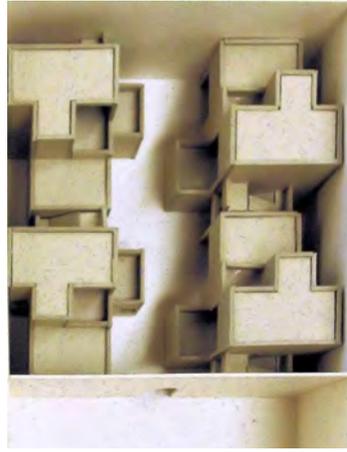
39 [GLOBUS 2006]

40 Introduction to the tuition philosophy of the Escuela Taller by Eusebio Leal. [LEAL 2015]

41 'Escuelas Talleres' have also be opened in other countries under the auspices of the Spanish Government and UNESCO, but the first four located in Havana seem to be most successful ones and most widely commented upon., For details on this initiative see the thesis of E. Gilblom and J. Messemer [GILBLOM 2020]



Alleyway in Cayo Hueso, which forms part of Centro Habana with high rates of overcrowding



Design exercise at TU Darmstadt for the renewal of the next alleyway to upgrade



View of the Callejon Espada was the first one to be rebuilt – thanks to funding from Oxfam



Happy resident returning to her renovated and expanded home

Community Offices (Talleres de Transformación Integral)

Over more than two decades, urban planning was understood in Cuba (like almost everywhere else) within the parameters of physical planning, but not only in Cuba it had become clear this would not solve upcoming challenges of big cities in the future. In this understanding, in 1987, Fidel Castro engaged the former Director of architecture for Greater Havana, Dr. Gina Rey to form a *Think Tank* for the future development of the Capital Havana, the so-called Group for Integral Planning of the Capital (GODIC). One of the first initiative was to address a transformation of the most problematic quarters of Havana,

namely the just mentioned and run-down inner-city neighbourhoods like Cayo Hueso,⁴² and the informal settlements in the fringe. For this task participatory planning was envisaged as the best methodology, for which Integrated Transformation Workshops⁴³ were established in a handful of pioneer quarters.

Another one of these informal settlements is *Isla de Polvo* in Pogolotti neighbourhood, not far from the Technical University (ISPJAE). Dr. Kosta Mathéy, Guest Lecturer at this institution at the time, was appointed to consult the community in Isla de Polvo in the upgrading of this place – a novelty approach since



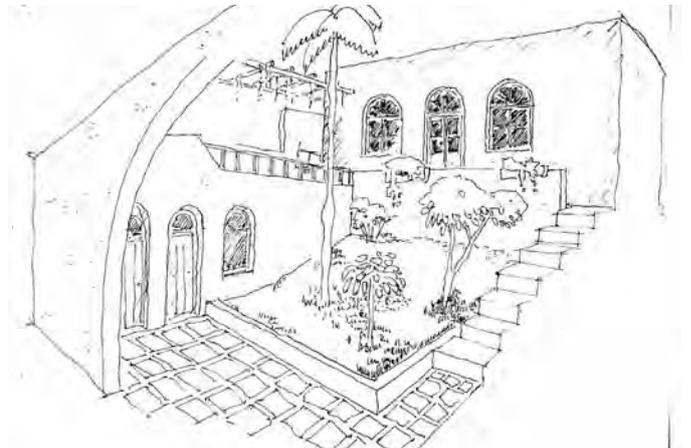
View of the informal settlement Isla de Polvo; next to Pogolotti, Marianao.



Needs analysis with residents f 'Isla de Polvo'



Participatory Design workshop with residents



Proposed rebuilding of the first house scheduled to be upgraded (K. Mathéy)

in the current crisis of the *Periodo Especial* (1990 onwards) and New Constructions were unthinkable. Immediate solutions for house extensions and infrastructure were sought in lime and stabilized mud constructions. In later years and with improvement of the economic situation, social work became the main focus of the *Talleres* (workshops) which still exist today.⁴⁴

Grass roots initiatives

The more recent partial legalization of private economic ventures also had a positive impact on the improvement of public space, apart from individual business premises. This

can be observed in the most Northern slice of Old Havana. Here an economically successful self-employed hairdresser (his saloon '*arte corte*' doubles as a museum) convinced his neighbours, and also the municipality, to upgrade the street in front of his barber's shop which soon became very picturesque – in the style of some alleys in Paris' St. Germain quarters in the 1970's. For the time being, this is an interesting case study of fruitful cooperation between the public and the private sectors at the very local level, following the *lineamientos* at the beginning of the second decade of the 2010s.



Calle del Peluquero in Old Havana



Improvements in Calle Alguilar – the Hairdresser's lane.



Privately operated Pizzeria in La Lisa, Marianao



Painted house accommodating some young people in Vedado

07 Housing Need and Demand

The quantitative housing deficit has been calculated to be between 425,000 and 430,000 units (only in urban areas) in 2012, which corresponds to 13 times the amount of the average annual housing production of the last documented years (2009-2011). In addition, the necessary renovations (an additional 455,000 homes) and extensions (48,000 homes) need to be added to get an idea about the total need. Beyond the purely quantitative need, an increase in the expected standards should also be taken into account, which is more complicated to assess. Housing is not a "cookie-cutter" product and demand is differentiated by location, type, size, architectural plan, cost, available services, urban infrastructure, professional activities, age and lifestyle of the residents, etc. Apart from some research conducted at the ISPJAE⁴⁵ in Havana, we have very little information on the need and qualitative demand for housing in Cuba. A systematic approach can bring us somewhat closer to an answer.

Need by typology and design

Demographic trends indicate an increase of one-person households (13.8% in 2002 to 22.3% in 2020) and, similarly, we can observe an increase in the population over 60 years of age (14.7%

from 12.8%), who do not usually live with their children. These figures indicate a greater need for dwellings with 1 or 2 rooms. At the same time, according to the survey conducted on behalf of ONU Habitat Cuba, the demand of space per person is increasing: more than 50% of respondents call for a more spacious home. The same survey reveals that only 6.4% of the population prefers housing that was built by the state, which represents more than half of all current housing production. Other acknowledged deficits include the restrictions that the concrete walls (in some panel prefab systems) imply in respect to the adaptation of living space, lack of visual and acoustic privacy, poor lighting, the absence of a balcony and/or a view of the street, as well as the lack of provisions for drying clothes. Owners who live in their self-built house tended to be much more satisfied with the quality of the house they live in (over 90%). However, buildings that originate from the pre-revolutionary era are the most-favoured typology of all. These observations indicate the importance of defining housing need and demand beyond purely statistical values and bureaucratic assumptions. Certainly, the housing typology, individually designed constructions, and changes in family structures must be taken into account.

⁴² About the renewal attempt in Cayo Hueso see article by Irma Leinauer et al. [LEINAUER:1992] in TRIALOG 33.

⁴³ A very recent interview with Gina Rey reflects on this unique experience of the workshops for Integrated Neighbourhood Development: Quiroga, Maya in Cuba Ahora . La experiencia de los Talleres de Transformación Integral. [QUIROGA 2021]

⁴⁴ A comprehensive research report on success and failures of community initiatives in Cuba was completed by Kosta Mathey in 2006 [MATHEY 2006] and may be downloaded under: <https://www.dropbox.com/s/mdp0mr4bgd1stu9/Iniciativas%20del%20barrio%20en%20Cuba.pdf?dl=0>

⁴⁵ The Faculty of Architecture, the *Instituto Superior José Antonio Echeverría*, the Technical University of Cuba. The Price System Construction (PRECONS) document is a detailed list of prices established for the whole country.



The simplistic interpretation of the 'house' as the exclusive place for rest and reproduction and which only occupied in the moments left between work and social activities is responsible for the minimal standard design of mass housing in Cuba. This view, of course, does not reflect today's complex lifestyle, study, recreation and educational practice.

Socio-cultural needs

Design standards for mass housing in Cuba are very similar to those from Eastern Europe of the 1960s to 1980s, when those countries were still considered socialist. They arise from a simplistic social model in which both parents spend the day at their place of work and the children are at school. In such a model, the family only gathers in the home at night and, perhaps, during the weekends, and the family composition never changes. Today (as often in the past as well) this pattern is more a theoretical concept that does not correspond with day-to-day practice: housing is in fact used for many functions, such as a meeting space with friends, as an office, a library to study, a workplace or workshop, a warehouse, etc. It should also be noted that a significant number of Cubans practice their religion in a dedicated room reserved for that function (*quarto de religion*). In consequence, more flexibility in the assignment and equipment of the rooms would greatly improve the use value of a dwelling.

It is important to remember that the notion of *habitat* goes beyond the mere dwelling: it includes the outdoor and public space as well as non-physical aspects. The ground floor apartments in condominiums often use part of the land as a garden or orchard (if not as a garage in some cases), while public spaces inside and outside the building are used as the children's

playground and as a meeting place for the young and elderly alike. Such facilities add to the value of a dwelling, as does the proximity to public transportation and places for culture, entertainment, or shopping – aspects valued especially by children, the disabled, and the elderly.

From a design point of view, in standard mass housing typologies the shape and orientation of the building site and the neighbourhood setting are typically ignored. Neighbouring land use, social setting, population density and the positioning of buildings not only affect ventilation and microclimate, but also influence the feeling of comfort or fear of the pedestrians and neighbours. They influence the residents' decision on whether to remain in the public space, relax and look at natural or constructed details, etc. – or alternatively escape as quickly as possible and seek a more pleasant environment. In other countries it has been observed that the attractiveness of a neighbourhood to tourists equally increases the satisfaction of the locals with their neighbourhood. A possible solution to this limitation of standard housing can be smaller and more flexible constructive elements and indoor spaces which do not predefine a particular use (apart from kitchen and sanitary rooms). A feedback session involving residents and the chief planner and engineer after a year of occupancy should be an accepted good practice.



The home sometimes serves as a temple to accommodate religious practice, here an apartment in Vedado, Havana



The quality of outdoors spaces represents an important part of habitat. Example: Semi formal housing in San Miguel de Padrón.

Housing as a productive economic factor

With the recent reduction of jobs in the state enterprise sector in Cuba, an important portion of the population now depends on self-employment. Recent and future pandemic incidences like in the recent Corona epidemic also call for spaces fit for home-office work and distance learning – conditions which will become part of daily life anyway in consequence of advancing digitalization. Since such spaces were not provided in the past, many residents often depend on adjacent public space, a garage or a room in their homes to generate income. Moreover, since the construction industry has become an acknowledged private sector occupation, it should be understood as an accelerating factor for the



Examples of well-designed open spaces: La Pastorita Houses: Reparto Camilo Cienfuegos, Santa Clara, 1961. Source. Archivo del MOP

national economy and directly and indirectly generates jobs (= income) and physical assets.

In conclusion, effective housing needs and demands cannot be defined in norms and regulations, and even less in terms of a few standard design models repeated again in the logic of industrialized production of dwellings. Even in mass housing, more flexible design and space for non-redesigned use should be provided. In addition, a high-quality living environment outside the house tends to be missing in many cases though urgently needed for the well-being of the population. Indirectly it contributes to social peace, increases the economic productivity of the nation in the long and intermediate perspective.



Industrialized housing production can be a solution in certain cases, but landscaping cannot. Example: Alamar, East Havana.

08 Costs and Financing

Part of the socialist concept of an equitable society precludes the fair distribution of the basic means of subsistence (including housing) according to material and cultural need - irrespective of the individual's capacity to pay for basic facilities. In line with this understanding, since the Revolution in 1959, the prices of goods and services in Cuba have not been necessarily calculated according to the monetary cost of production, but rather are in assessment of their social value (primarily for satisfying the basic material and cultural needs for all). This concept also extended to the pricing system in the housing sector: the cost of production need not to correlate with the transfer price to the owner, which necessarily precludes a significant state subsidy. Until then end of 2020, the calculation was further complicated as the components produced in Cuba were paid in Pesos Cubanos (PUC), while imported components are billed in foreign currency or the Convertible Peso (CUC). However, on January 1st, 2021 a new and uniform single and convertible Peso currency was introduced, though the practical results are still to be observed and evaluated. This report can only refer to past experience.

The principle of subsidies also applies to the building-materials market and other expenses occurring in self-built housing construction. Lately, with the legalization of buying and selling homes, a new disturbance was introduced in the system, by which the market price, determined by the ability to pay more than another

buyer, rules over the distribution of housing. This phenomenon bears the risk of socio-spatial segregation hence ignored in Cuba since the Revolution.

The cost of building construction

All prices in building construction in the state sector are regulated by the PRECONS list,⁴⁶ which fixes the builders' charges to the investors according to the unified price list published by the state. The total construction cost integrates the following main components:

- **Direct costs:** materials, labour, and use of equipment.
- **Other direct costs of labour:** quality testing, necessary breaks, replacements, loads, storage, protection, hygiene, toilettries, cleaning work, etc.
- **Overheads:** marketing, technical preparation, and administration.
- **External costs:** temporary facilities, assembly and disassembly of equipment, personnel carriers, staff accommodation, surveillance and security services, and other incidentals.
- **Income:** Twenty percent is added to the total cost on account of economic benefit.

⁴⁶ The Price System Construction (PRECONS) document is a detailed list of prices established for the whole country.

So far, in the calculation of construction costs, a distinction was made between national provision (paid in CUP) and imports (payable in CUC, whereby 1 CUC approximately equals 1 US\$). The PRECONS II,⁴⁷ approved in 2005, resulted in a valuation of 400,000-658,000 CUP (U.S. \$18.30-U.S. \$31.40) per square meter of housing construction. In 2014, the PRECONS was replaced with the system “Base Prices of Construction”, which allows for a margin of negotiation for labour. (Note that the dual currency is being phased out since January 2021, only leaving the ordinary Peso).

The transfer price of housing

The “legal price” or transfer price is the amount paid by an individual to the state for the purchase of a home, or the amount which one can borrow from the bank for the purchase of a house. The price is calculated according to a legal bill (*acuerdo del gobierno*) originally signed in 1985, and has resulted in values between 65,000 and 180,000 CUP (U.S. \$3.00-U.S. \$8.25) per square meter, plus a surcharge for the urban infrastructure which represents between 16% and 27% of the construction cost. The difference (more than 70% of the final costs) is covered by a subsidy from the Cuban state.

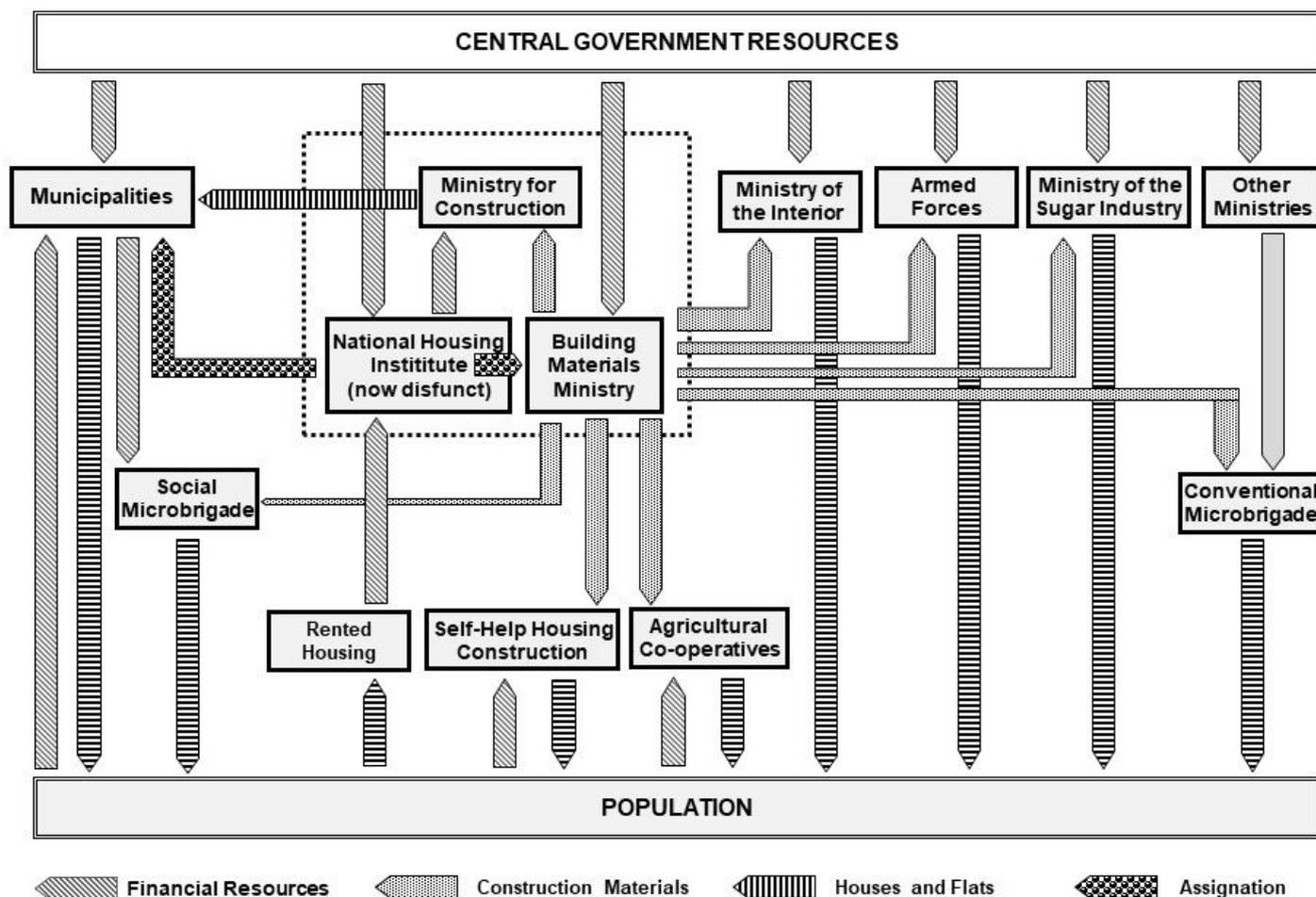
The cost of self-built housing

Individuals planning to construct their own dwellings are required to employ a professional builder (or a building cooperative of which only a few exist), obtain a serviced building plot, arrange for

the technical documentation, and eventually purchase the needed construction materials. State construction companies and certain ‘social cases’ only need to pay the calculated cost price, whereas constructors in the private sector and regular self-builders are liable to a surcharge of 48% on the basic price, which is meant to finance a subsidy for very poor self-builders (40%) and an emergency fund (8%) to house victims of natural disasters (especially hurricanes). This concept of cross-subsidy has been a feature in Cuban Housing policy for a long time – like in the case of *micro-brigades* where a certain number of additional flats were built for external recipients with special need – like political refugees from other countries.

No statistics are published on the costs of self-help construction, but the example of a 70m² house that was built in Mari-anao (Havana) in 2014 using a private constructor at market price summed up to CUP 157,000 (including land), or the equivalent of CUP 2,500.00 (US\$ 115.00) per square meter. This price, which translates into 4 times the price of PRECONS, corresponds to 28 years of an average state salary for one person in Cuba – or 14 years for a family with two working members.

Individuals who have used self-construction, and were interviewed for this report in 2013, indicated an average price of CUP 270,000 for a house larger than the above case with 79 m². This information more or less confirms the high costs of construction



Flow of financial and material resources in the Cuban sector. [Visualization: Kosta Mathéy]

⁴⁷ The PRECONS is a unique pricing system for each construction job; it is typically displayed on the building site.



Municipal housing investment office in Marianao, West Havana



Private housing market in St. Miguel de Padron

for individuals under the self-builders' scheme. The considerable investment needed in terms of time and money possibly explains why the population currently shows little interest in involving themselves in the efforts and expense of building their own dwellings.

The market price for buying and selling a home

Market prices for the sale of a home typically span from the equivalent of US\$ 5,000 to US\$ 500,000 or more.⁴⁸ It is easy to get an idea about the prices that sellers are asking from adverts on the Internet, although some doubts remain on what prices are eventually paid. Compared to the cost that a self-builder would need to invest, the market prices include a plus value which reflects quality aspects such as location, style, accessibility, and the like.

There is some criticism about the private and direct selling and buying practice because it ignores the established socialist principles of basing access to housing on need rather than the individual's ability to pay. However, the problem of social inequality and possible territorial segregation is not rooted in the unrestricted sales of houses, but rather in the unequal access to income (especially in foreign currency). If the entire population had similar incomes, as it was the case in Cuba in the 1970s and 1980s, the system of open selling and buying (which did not exist in this period) would simply regulate the realization of personal preferences, like spending more on a preferred house, and thus sacrifice other expenses such as vacations, parties, drinks, a car, etc.

PERMUTAS

BOLETIN DE CLASIFICADOS DE LA DIRECCION PROVINCIAL DE VIVIENDAS EN C. DE LA HABANA.

IXI

OFREZCO: Apto. a una cuadra Manzana de Gomez de 3/4, sala-comedor, cocina, baño, 2 balcones calle, agua, gas y telf. (todo amplio).

NECESITO: Casa o apto. en Ciudad Habana o Rpto. cercano, puedo reducirme, imprescindible gas y telf. Inf: 61-4545 Después 3 pm. Caridad (2).

NECESITO: Apto 2 1/2 hab. telf, gas, agua, Vedado o Playa. Inf: 30-6328 (14)

OFREZCO: Apto 2/4, sala-comedor, baño, cocina, telf, inf. 1er piso.

NECESITO: Apto o casa 3/4, similares condiciones, telf, Vedado, Stos Suárez, Vibora o Playa. Inf: 30-3457 Después 6 pm (15)

OFREZCO: Apto moderno, pintado y nuevo de 1/4 chico y otro grande, sala-comedor, cocina, baño, balcón, gas, calle. 2da piso.

OFREZCO: Casa en bajo entrada de carro, sala grande comedor aparte, hall, 3/4, cc cina, baño y patio.

NECESITO: Casa independiente, 2 1/2 ó 3/4 c/garaje o posibilidad de hacerlo, Vibor-Sevillano o Rpto cercano Inf: 30-2534 Jorge o Zulem Calle B 609-B e/ 25 y 27, Vedado, Plaza. (28)

OFREZCO: Apto moderno vista calle, 1/4, sala-comeda baño, cocina, paticificio, agu luz y gas siempre.

NECESITO: Ampliar en li

Before the liberation of the housing market, the state assisted people to swap housing (called 'permuta') through a weekly journal.

Another point to consider when discussing social equity is the heavy taxation of 20% (to be paid by half for each: seller and buyer) that the state levies on the buying and selling of houses. This tax is probably sufficient for the state to build an additional new "replacement" dwelling – and which should come free of repair and maintenance problems for many years to come.

The cost of land

Land is public ownership in Cuba, and continuous land use rights are free of charge for state-built housing, and for dwellings which the agricultural cooperatives provide for their members. Individual self-builders have to pay a rather symbolic, one-time fee ranging between 6 and 33 CUP per square meter. Any land which has been in private ownership since the pre-revolutionary period may be sold at market price.

The housing finance

Right after the success of the Revolution, in 1959, Fidel Castro found a fast solution for financing an immediate and in every aspect (fast, affordable and up to now architecturally the best quality) extremely successful social housing program. All the cost of the program was covered by the highly profitable, country-wide lottery program, through which Havana's Millionaires had become rich very fast. The lottery was converted into an investment trust and a housing scheme under the name of 'Instituto Nacional de Ahorro y Viviendas (INAVI).⁴⁹ The only problem was ideological because most of the lottery tokens were bought by the poor – and there was no excuse for a socialist government to continue with this exploitative institution.

Since the ending of this short episode, new housing in Cuba is financed either from the purchasers' individual savings, from (state) credit institutions, or through direct, indirect or cross subsidies. The state also assumes the cost of banking interests for loans given to people affected by natural disasters who are willing to engage in self-construction.

- **Indirect subsidies** are manifold and include, among other things, reduced land prices for individuals employing self-construction (reduced to a "token" amount), and 100% reduction on the land cost for the beneficiaries of housing



The 'Prado' avenue in Old Havana has been a place where to meet informal real estate brokers for swapping houses and flats

⁴⁸ For recently updated prices read the paper by Aline Miglioli following this report in this TRIALOG issue.

⁴⁹ [PFLAUM 1960] A problem of the established industrial system was its extreme centralization, which involved high transportation costs, sometimes transport cost more than the value of the material itself.

built by the state, agricultural cooperatives, and the INV (when it still existed).

- **Cross-subsidies** are for the sale of building materials. The predominant beneficiaries are: (a) low-income individuals and those in urgent need of housing repair and maintenance, and (b) the victims of Hurricane Sandy in 2012, who received a reduction of up to 99% for construction supplies. Approximately 40,000 people benefited in the first year of this system's operation.
- People undertaking self-construction pay much of the costs for building their homes from their **personal savings**. House purchasers who buy their property on the market need to finance 100% of the cost themselves.
- Other citizens can access **bank loans** to pay for materials and the transportation of the same to the building site, as

well as to cover part of any hired-labour costs. Purchasers of housing built by the state can receive a 100% loan on the purchase price. The loans need to be paid back within 15 to 20 years, and the interest rates are relatively low at only 3% per year. This provision is intended to remove the financial barriers to home ownership for each Cuban citizen. The bank requests, however, a security for the loan, like another guarantor or the possession of holiday home outside a city. This restriction practically results in the exclusion of a large number of families.

In conclusion, except for individuals doing self-construction and those who acquire a house on the uncontrolled buy-and-selling market, access to housing theoretically does not imply a financial problem. Obviously, the high subsidy component in housing built by the state makes it impossible to offer a home to all who require or request it - and explains the existence of the notorious 'housing crisis' in Cuba.

09 Building Materials and the Construction Industry

Maybe the most serious obstruction to a quick solution of the housing problem in Cuba has always been the limited supply of building materials. The reasons behind this are mostly historical: the country fully depended on industrial products imported from the United States of America before the Revolution, thus the development of the local industry was not deemed to be a necessity. Subsequently, with US trade embargo the building materials supply broke down. Later, the dominance of industrialized construction systems increased the dependency on favourable crude oil imports from the Soviet Union, which again were cancelled from one day to another in 1990. Some relief came from Venezuela (2010-13) and, if the rumours are true, from certain states in the Middle East.

The construction materials industry was organized by its own ministry until 1999. However, during the 'Special Period' (1990 onwards) many production lines were paralyzed, some of the machineries was lost forever. The remaining production capacity remained very low, which did not justify maintaining a special ministry for it. Subsequently, the production of materials - except metals - was incorporated into the Ministry of Construction.

Recently the (still state-owned) building materials industry became semi-autonomous: companies became more flexible now and allowed to link wages to the productivity of the company. Also, decentralization helped to complement the output of the still

predominantly centrally administered supply: Some municipalities also started their own materials production yards and encouraged local artisans to take individual orders by the population.

In order to substitute the import corrugated metal sheets, special vibrating tables were developed in the Technical University of Havana (ISPJAE) allowing to produce fibre cement tiles at the construction site. At the beginning of the '*Periodo Especial*', experiments started to build in rammed earth and stabilized mud blocks. But the thicker walls, which for climatic reasons were not customary in the country, did not bring significant savings for the total construction even when the percentage of cement in the material was only minimal. In the Universidad de Oriente in Santiago de Cuba, different lines of investigation explored the use of alternative building materials like Bamboo, which does not depend on steel and cement, but in addition is resistant against earthquakes - a frequent phenomenon in this part of the country.

Nevertheless, within only five years, in 1995, before the rest of the Cuban economy could fully recover from the Special Period, housing production levels had achieved the same level as before the Special Period - even though the national building materials industries (especially the prefabrication plants) were largely dysfunctional. Their reduced output was fully compensated through local and alternative construction materials and technologies, indicating a high potential of Cuban talent for



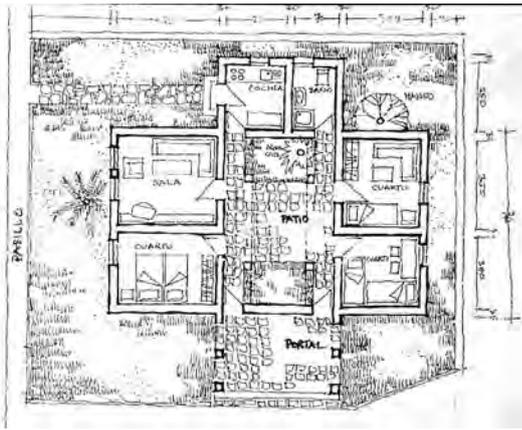
Municipal building yard in Palma Soriano, Eastern Cuba



Tevi Cement tile production developed in the Technical University ISPJAE (Photo: Ecosur)



Self-employed tile maker in Palma Soriano



Stabilized Earth construction meant to overcome the shortage of cement (Design: Kosta Mathéy)



House built of Bamboo, developed in the University of Santiago de Cuba. (Photo: Juan Manuel Pascual Menendez, CASAS, Universidad Santiago de Cuba)

improvisation and flexibility – but also manifesting the limitations of industrialized building technologies. Unfortunately, with the overall recovery of the Cuban economy in the 2000s, state institutions lost interest in “soft” technology solutions in the construction sector and, at large, returned predominantly to cement-based housing construction – implying a dependency on oil imports again.⁵⁰ The incorporation of the former Housing Institute into the Ministry of Construction practically banned the use of alternative construction materials from mainstream housing supply.

Recognizing the problems with the centralization of the construction industry, the National Group of Production and Sale of Construction Materials promoted decentralized production of

building materials from 2010 onwards, several types of materials, which established connections between manufacturers, municipalities, and universities.⁵¹ Today, there are several production centres that are operated by municipalities on their own, which supply small-scale producers.

The main challenge today is to find a healthy balance between the use of traditional materials and technologies (brick, stone quarry, lime, pozzolanic cements), modern materials (concrete, fibre cement sheets), and alternative materials (ferro cement, bamboo, pozzolana, Tevi tiles⁵² etc.). Only the combination of all the options available, backed-up with the necessary political support, could meet the huge demand for building materials – and help to reverse climate change at the same time.

10 Technology and Building Systems

Since joining the socialist block in the 1960’s, the myth of solving the housing problem through Industrialization (in the meaning of automatized mass production) is still alive.⁵³ In consequence, there is no shortage of technological alternatives with a theoretical potential to accelerated construction of housing. The most successful in terms of flexibility, speed, energy input and adaptation to the landscape was the small panel NOVOA system – renamed SANDINO after the victory of the Nicaraguan revolution. It is simple column-and-panel system, which can be easily produced and assembled by hand and fits well into the landscape.

In the early years of the revolution, also some interesting modular construction systems have been developed and

prototypes being built – some of them using fibre-cement modules for cupboards extending out of the façade.

In assistance to replace the damages to housing through the devastating hurricane Flora in 1963.⁵⁴ Cuba refused aid from the US but accepted it from the UdsSR who donated a large panel housing prefabrication plant to be assembled in Santiago de Cuba (*System Krupno*).⁵⁵ Subsequently, Cuba adapted and developed their own systems, which they also exported to other countries.

In the 1980s, more-advanced and column-supported systems – especially the Yugoslavian IMS system⁵⁶ - were introduced to construct buildings of 11 floors and more but proved to cause

⁵⁰ A problem of the established industrial system was its extreme centralization, which involved high transportation costs, sometimes transport cost more than the value of the material itself.

⁵¹ [ACN 2017] <http://www.acn.cu/cuba/28797-apuesta-cuba-por-producir-localmente-materiales-de-construccion>

⁵² Micro concrete roofing tiles fabricated on site with the TEVI vibrating table and moulds marketed by the Havana University of Technology, ISPJAE with the support of EcoSur from Switzerland.

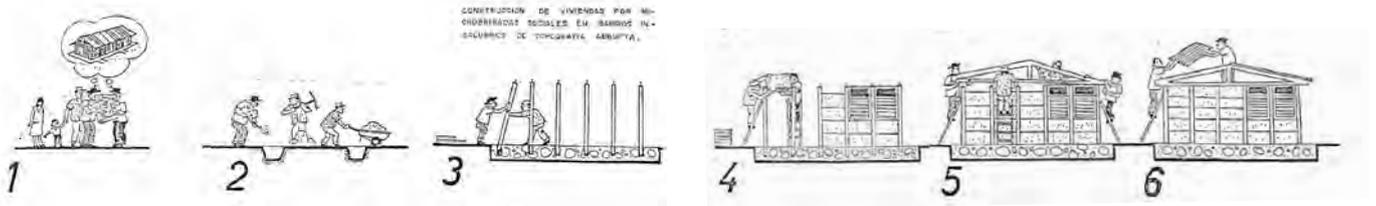
⁵³ For an excellent summary of different industrialized housing typologies see [DETTORRE 2016] Giulia Dettore, *Architecture and Comfort* (2016): <https://wsimag.com/architecture-and-design/21410-architecture-and-comfort>

⁵⁴ Hurricane Flora caused 17590 deaths in Cuba, see [HURRICANES 1962]

⁵⁵ For a detailed analysis of construction technology transfer from the Soviet Union to Cuba see [NAVAEZ 2017]

⁵⁶ [Dimitrijevic 2000]

⁵⁷ For a good account on prefabricated mass housing in Cuba see the chapter ‘Architecture and Comfort’ by the Italian architect Giulia D’Ettorre (D’ETTORE 2016).



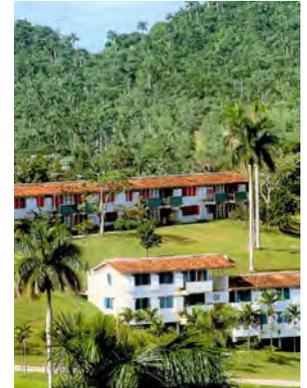
The very simple and flexible prefabrication system SANDINO was developed in the 1960's (INV)



Office built with Sandino elements in Santiago de Cuba



Emergency housing being built with Sandino system in Havana Marionao 2013



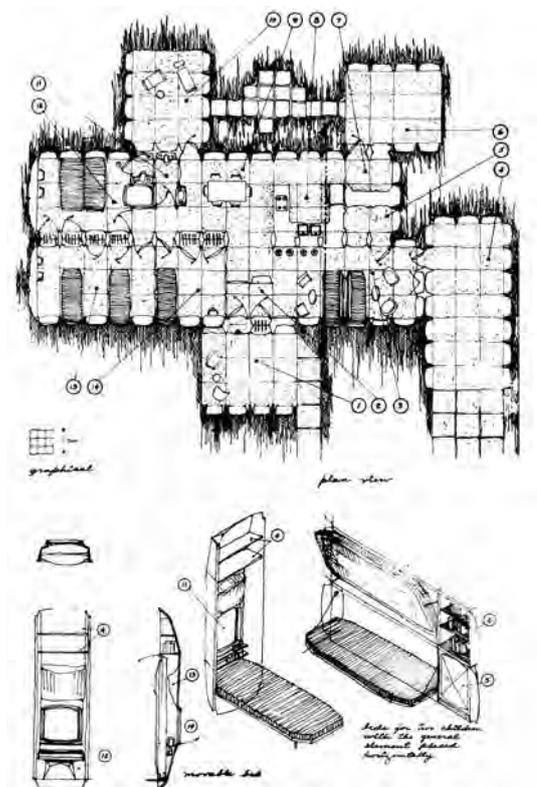
Rural settlement Las Terrazas with Sandino houses

higher construction and operational costs.⁵⁷ In the 2010's, again imported foreign systems like the Petrocasa⁵⁸ from Venezuela, or the Colombia-Canadian FORSA system.

In spite of the perfection and variety of advanced construction technologies, the average volume of completed homes annually remains constant at about 30,000 units. This observation provokes second thoughts about the practical importance and necessity of system buildings in solving the housing problem in Cuba. Let us review the main technological options for housing construction in Cuba:

1. Conventional technology: a house with brick walls, cement blocks, possibly reinforced concrete columns. Intermediate floors and the roof tend to be concrete slabs. In some constructions, the roof cover can also be of corrugated iron or the Cuban-made Tevi micro-cement tiles.
2. The other half are buildings and houses built by the state (but excluding those constructed by microbrigades from 1970 to 1990), based upon industrialized systems that were introduced with the expectation to double the productivity of each worker. Already since the 1960s, the Sandino System has been used with small elements; it is the quickest, simplest, and least expensive alternative and allows manual assembly. It is mostly found in rural areas, while in cities the large-panel system is favoured to build dwellings up to four floors.

With the dramatic reduction of oil imports, an essential limitation for building in concrete, industrialized housing construction halted. A first reaction included attempts to reduce energy consumption, for example with stabilized soil construction. But the necessarily thicker walls relativized the absolute savings in cement, but also reduced durability in the hot-and-wet Cuban climate, and the necessary restrictions in building-heights



Modular prefabrication system developed in Cuba 1965

⁵⁸ PVC prefabricated houses of Global Housing Solutions (GHS) protected their inhabitants in Santiago de Cuba from Hurricane Sandy. See [PLASTICS 2012]



Imported prefabrication system from the Soviet Union with reinforced façade panels to increase Earth-quake resistance, used in the extreme Eastern parts of Cuba – locally nicknamed ‘el televisor’. Because of the tropical climate, the panels were perforated with holes to allow ventilation.

In central and Western Cuba, the Yugoslavia IMS column-based construction system was used and allowed high-rise building of up to 11 floors.

quickly let to the abandoning of such efforts. More intelligent systems were favored, such as ferro-cement constructions, micro-concrete, or the revival of the old Sandino System including its later variants.

After 2000, when Venezuelan oil became available in Cuba, a return to cement-based construction was promoted by the Ministry of Construction and others, but most of the existing prefabrication plants remained out of use. Instead of transporting heavy pieces over long distances, the industry began systematizing in-situ shuttering or lost formwork made from polystyrene, which allowed for more flexibility, especially in the design of higher-standard apartments allocated to groups of ‘social merit’ recipients. On the other hand, for housing the hurricane victims or to permanently accommodate the inmates of the provisional shelters (*albergues*). Certain imported systems (like the above mentioned *Petrocasa* model, which came as part of international aid initiatives, were used

to speed up construction, together with the conventional, national micro-panel systems.

In short, Cuba was privileged to have developed a large number of technological solutions for home construction that provided for almost all technical requirements. Most of them are now obsolete because of the high-energy input of their production – and this will increasingly become a limitation in view of the need to stop global warming. The greatest potential to speed up the production are solutions that allow quick assembly by untrained workers and which could be delivered as a complete package to avoid unnecessary delays caused by waiting for single construction elements temporarily out of stock.

Last, but not least, some of the few projects shall be presented which show a productive ‘deviation’ from the norm expected by the Ministry of Construction. The first one dates back to the 1980’s when two young architecture graduates



Imported technology for emergency housing after the hurricane in Santiago de Cuba



Donation of prefabricated houses for reconstruction after hurricane damages in Santiago de Cuba in 2012

from Santiago de Cuba José Antonio Choy (today about the most prominent architect in the country) presented a mass housing project in which they moved the façade panels froth and back thus making it appear an abstract sculpture. The second remarkable case is a Microbrigade block of flats in Playa, designed and built by a young engineer Mario Durán.

In the middle of the Special Period, he managed to individualize the design and save the use of steel by avoiding lintels and beams. A third example was group of 'Young Architects of Cuba' who successfully demonstrated the compatibility of modern (and postmodern) architecture in the historical core of Havana.



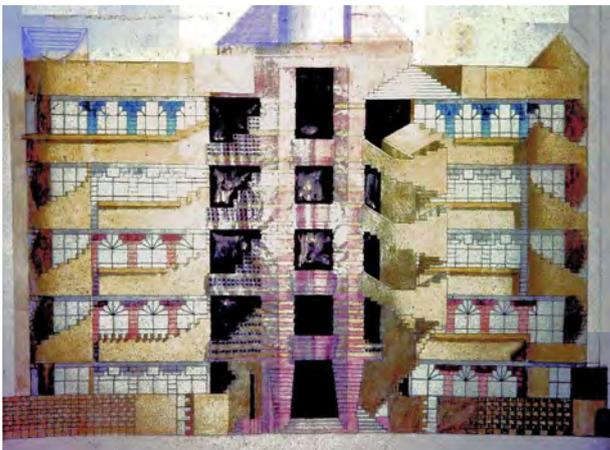
Price winning design adapting standard construction elements for individualized design



Flexible use of prefabricated elements to a more interesting housing block. The bad news, however, was the decision to remove half a mountain to provide flat land as a base for the standard building elements



Alternative design for the upgrading of the informal settlement Van Van on hilly terrain outside Santiago de Cuba. Similar as in La Terrazas, individual family houses can be placed along the contour lines. Design: Kosta Mathéy



Micro Edificio Pilar, calle 11, Marionao: Proyección y plan



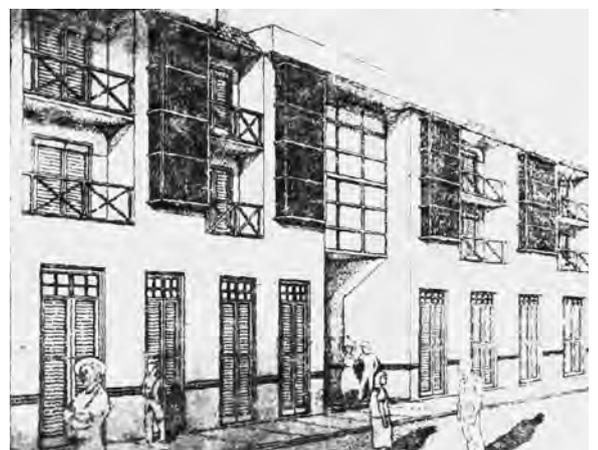
Ing. Mario Durán Amejo



Ricardo Fernandez, Microbrigada Social, Calle Luz 2017, La Habana Vieja



Edificio para Constantino Medero y apartamentos.
Calle 217 y Calle y Duque. Habana Vieja
Ing. Ricardo Fernández



Eduardo Luis Rodríguez. Microbrigada Social, Velasco 26, La Habana Vieja

11 Land and Urbanization

In Cuba, most land belongs to the state and is made available to the residents by way of a (free) right of perpetual use. Only a symbolic amount (or nothing in the case of state-constructed housing) is charged for the acquisition of this right. Thus, the exploitation of the population through land rent – a fundamental critique of the capitalist system since the 19th century – is avoided. But every coin has its two sides: as there is no stimulus to use the land economically, large areas of potential building land remain idle. Furthermore, the cost of servicing potential land for construction is not being recovered so far, which is detrimental to efforts in keeping the existing infrastructure in a good state of repair, or to urbanize new plots for prospective self-builders.

The slow pace of new urban developments, along with the current demographic stagnation, has resulted in a very low rate of urban growth in Cuba. In this respect, Cuba enjoys a very privileged position in comparison to the rest of Latin America. Urban densities remain low, with 50 inhabitants/ha in provincial centres, and 86 inhabitants/ha in Havana, where it may increase up to 200 inhabitants/ha in some central parts (the peak is in Central Havana, with 442 inhabitants/ha at a typical building height of only two floors). Furthermore, and in function of the absent economic pressure to develop idle land, there are – theoretically - still enough land reserves inside the cities capable to meet the upcoming need for housing.

An ongoing controversy among Cuban planners concerns the assessment of desirable densities for the future development of cities and towns. Some experts propose a vertical densification of cities to preserve rural areas for future food self-sufficiency. This position reminds of the fashion of 'horizontal property' of the 1950's which provided the owners with the space of a suburban property combined with the privilege of the best central location. The opposing argument refers to the huge reserves of arable land in the country that are not yet in use and, likewise, encourage sustainable ecological development within a city with a lower density. This argument also advocates further expansion of urban farming which, in the long term, is more durable and productive than modern monoculture agriculture in the countryside. (see chapter 13 below).

Efficient urban planning is further complicated by the absence of a land register, consisting of geographic information systems and a digitized record of all properties, though these endeavours are said to be in a planning stage. However, territorial development control is much more efficient in Cuba than in the rest of Latin America, where large areas of informal development and uncontrolled sprawl are a common phenomenon. This does not mean that there is still ample space to improve development control in Cuba, as ample press coverage about illegal building illustrates.

In conclusion: in Cuba; land cannot be abused as a commodity and as such instrument of speculation and exploitation – which is the main reason behind excessive housing cost (and eventually homelessness) for most of the population and extreme capital accumulation for a very small section of society in most other countries. But the lack of economic criteria for the development of urban land also implies a certain amount of wasting scarce land resources. In addition, the transfer of land-use rights is slow and complicated and implies a hindrance for private- or voluntary-sector housing development.



Some high-rise buildings originating from the 1950's and marketed as 'Horizontal Property' only one flat per floor



Small town in Havana province. One-storey development on a grid-iron street pattern



High densities in Centro Habana: this zone bridged the distance between Old Havana and the modern quarter Vedado

12 Urban Infrastructure and Services

The coverage of basic infrastructure provision, such as potable water, sanitation, electricity, and garbage collection in Cuba, is excellent compared to the rest of Latin America. Like all social services, including health and education (from primary to university level), these basic services are free of charge. These benefits, which were achieved by the Cuban Revolution, even exceed those offered in almost all industrialized countries world-wide. However, technical networks suffer on account of their age, as they are not renewed at the necessary pace and the resulting deficiencies cause considerable losses of potable water, infiltration of sewage into the groundwater, serious flooding after tropical storms, power cuts, and potholes or missing manhole covers (which represent a

danger for road traffic and pedestrians). Solid waste is collected several times a week (in theory: daily) from containers at street intersections, not from each individual house. Unfortunately, the separation of waste and its recycling has not advanced. Landline telecommunication service has been free for many years but was difficult to access. Now, the connections have been renewed but are being charged for; and the same is true for the cell-phone system, which is charged at high cost. The internet service is notoriously slow and private connections are rare, which negatively affects the productivity of professionals and academics. On the other hand, wireless reception is offered free of charge in many public meeting places like parks, for example.



Compared to the situation some 100 years ago, street paving is much better, but maintenance is a serious problem.



Garbage collection from the containers placed at the street intersection is scheduled twice weekly, but almost all containers miss at least one of the 4 wheels



Water supply is provided to all households, but the service can be irregular. Therefore, many residents install a personal water tank to assure uninterrupted availability.



Especially in the historical parts of big cities, Replacement of outdated pipe work in Old Havana, pipework needs to be replaced for health reasons but also to reduce the loss of water due to leakage.



Before 1990, public transport by bus was excellent in Cuba and ran all night long. But with the 'Periodo Especial', both: petrol and spare parts from Eastern Europe became out of reach. Whereas Havana began on a short-lived bicycle revolution, some provincial town switched to horse driven transport – the most ecological alternative anyway.

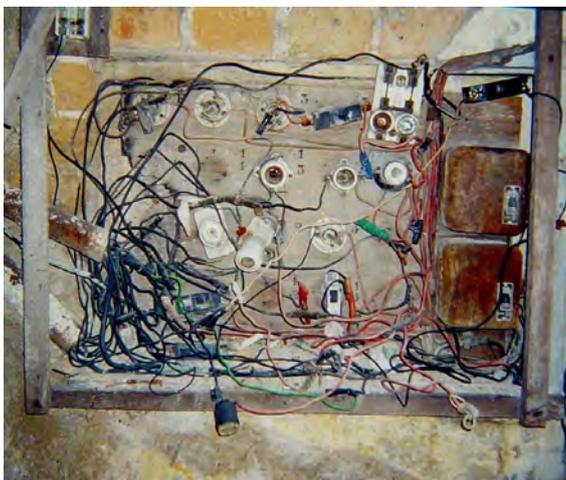
An emerging controversy among planners concerns the future urban transport model and the pattern of urban development. During membership in the COMECON common market⁵⁹, Eastern Europe supplied the Cuban Government with large scale industrial development, machinery, cars and buses, but also energy in form of oil exports, which was exchanged with tropical agricultural products from Cuba. The impact on public and private mobility in Havana and the rest of the country became catastrophic after 1990, and equally affected all other technical equipment necessary for electricity production and telecommunications. Even if the situation has improved over the years, serious deficits remain in public transportation services, and access to individual car ownership is difficult. For the few who enjoy the personal use of an automobile, this represents a significant improvement in the quality of life. Therefore, some Cuban urban planners (especially those old enough to remember the pre-revolutionary times when Havana had more cars than inhabitants) have been proposing to facilitate car ownership, as well as to construct more garages and parking lots. Opposing voices refer the experiences in other countries, where wide-spread individual motorized travel has resulted in high levels of traffic congestion, very slow mobility, and air pollution that seriously affects the health of the citizenry – not to speak of the impact on climate change. This viewpoint proposes to maintain the low number of individual cars and, instead, strengthen the public transport system with commuter trains, buses and revival of trams: Havana trams, introduced in 1858, transported a peak of 140 million passengers in 1929, but the service folded in 1952 and partly replaced by buses.⁶⁰

Right after the collapse of the COMECON in Eastern Europe, Cuba ordered 700,000 bicycles from China in 1990, invented the first ‘pop-up’ bicycle lanes⁶¹ along the large avenues, provided guarded bicycle parking and thus underwent a

‘bici’-revolution.’ But considering the tropical climate, the image of the bicycle as poor emergency substitute and improving public transport made the bicycle use short-lived experience that had almost completely forgotten 10 years later. However, from 2018 onwards, the international ‘green’ shift in mobility policies has reached Cuba as well, where the abandoned use of the ‘bici’ has become extremely popular again – and with the invention of the e-bike it can also be a solution for the elderly population.⁶²

Energy

In the past, Cuba’s energy supply relied on oil almost by 100%. A nuclear power plant had started to be built by the Soviets, but fortunately was abandoned with the departure of Soviet Aid since 1990. Only over the last five years there has been a distinct turn towards renewable energy – of which the country has almost unlimited potentials: on average, there are 300 sunny days in a year. With a coastline of 5700 km, wind power is another almost unlimited energy source and in the mountainous East, even hydropower is a realistic option. In conclusion: better late than never, Cuba plans to cover 25% of its energy demand on renewables by 2024. So far, solar energy capture has advanced fast, though still only contribution 1,5% of total energy demand. The most ambitious plan, however, is biomass from sugar cane plants which is expected to provide more than 50% of all electricity demand by 2024.⁶³ But considering the dramatic failure of Fidel Castro’s plan 1969/70 to produce 10 million tons of cane per year,⁶⁴ there remains some scepticism about the final output. But even if the target was met, the biggest bottleneck probably lies with the distribution infrastructure⁶⁵ which largely depends on importation of parts and appliances. In the meantime, conventional flat plate solar collectors could help to reduce the demand and the cost of energy quite effectively.⁶⁶



Electricity house connection in Old Havana



Projected Wind Parks in Cuba (Source: www.powermag.com)

⁵⁹ The Council for Mutual Economic Assistance (COMECON) was an economic organization under the leadership of the Soviet Union that comprised the countries of the Eastern Bloc along with a number of socialist states elsewhere in the world. It was founded by Stalin in 1949 and dissolved in 1991.

⁶⁰ For a beautiful and annotated photo collection of Havana streetcars see: [MORRISON n.d.]

⁶¹ This ‘provisional’ solution was reinvented by Berlin’s senate during the Corona crisis in 2020.

⁶² See the TV report by Deutsche Welle from 2017. [DW 2017]

⁶³ [XINHUA 2019]

⁶⁴ [PESANT 2020].

⁶⁵ See: Jorge Morales Pedraza (1919): In 2914, 17,6% of all energy produced in Cuba was lost in the grid.

⁶⁶ Solar water heating could reduce pressure on the power grid. See: [EPP 2016].

13 Ecology, Environment and Healthy Homes

Cuba is a vanguard country worldwide in the promotion of the “Healthy Homes” (La Vivienda Saludable)⁶⁷ concept and hosts the Executive Secretary of the *Inter-American Network of Healthy Living*. According to this concept, a safe house is well-adapted to both: protect the health of its inhabitants and to protect them against the multiple hazards possible in the built or natural environment. It must offer protection from the negative impacts of climate change, hurricanes, earthquakes and the like. The threats derived from the man-made environment include all kinds of pollutants (electro-magnetic, chemical, sound, air), and the micro-climate inside the home and in the neighbourhood. Also, psychological aspects can be influenced by the man-made environment. Except for the protection from natural disasters and the remarkable promotion of healthy architecture, the practical application of the Healthy Home theory is still at the beginning.

Natural environment

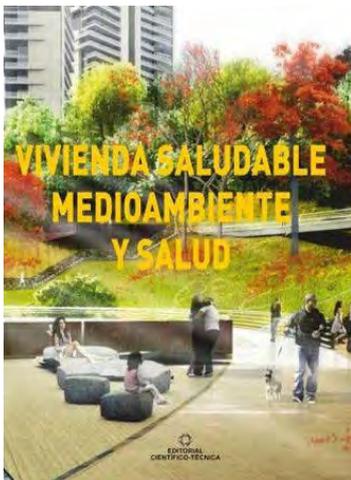
Cuba is located in a geographical zone severely affected by hurricanes and earthquakes, but also suffers from occasional flooding of coastal zones due to sea level rise. In the decade from 2001-2012 alone, 1,408,355 homes were damaged by hurricanes and tornadoes, which corresponds to 36% of the total housing stock of the country. A further 330,609 households (8.4% of the housing stock, mainly concentrated in the eastern provinces) suffered partial or total collapse. 75% of all damages concern the roofs, which explains why civil engineers promote the “safe roof” concept, which is almost always interpreted in terms of a concrete slab. Paradoxically, the concrete roof simultaneously represents the greatest risk in the case of a severe earthquake, which fortunately has not occurred in the country in recent decades, but the threat cannot be denied. (Haiti,

where the 2010 earthquake claimed 220,000 lives, is located only 91 km away from the Cuban coastline. In the 1932 earthquake, 1500 people were killed in Santiago de Cuba)

Despite the immense material damage that hurricanes and tornadoes regularly generate, only 41 fatalities were counted in Cuba in the above-mentioned decade - a figure that is much lower than that for other countries in the region. (Hurricane Katherine alone caused 1,464 fatalities in Louisiana in 2005.) An interesting question is therefore: how could Cuba manage to protect its population from similar disasters? The answer lies in its country-wide prevention and response policy, which is organized under the system of Civil Defence (DC).⁶⁸ This system incorporates a whole range of different institutions at the national, provincial, and municipal levels and thus can quickly mobilize contingent support from the entire country to help affected areas. For example: after the disastrous hurricane Sandy in 2012, all the power lines had been interrupted in the affected regions, but all had been fixed only one week after the hurricane had hit. Half a year later, there were no visible signs left of the immense damages that occurred in the municipalities that were most affected by the storm.⁶⁹ In this case, electricians have been brought to Santiago, located at the other extreme of the island, within a matter of days.

Climate Change Adaptation

Although the country is being affected by Climate Change in terms of suffering more frequent tropical storms, and also by rising sea water levels – the country seems to be less imaginative when it comes to climate change mitigation efforts in the past. There were, of course, a series of regional workshops on the New Urban Agenda (NUA) – which concerns



The Healthy Home concept embraces many aspects of construction and the environment



Inundations after a heavy storm in Havana 2013. Tropical storms carry multiple quantities of rain compared to place with moderate climate which normal canalization cannot cope with.



Damages of Hurricane Sandy in Santiago de Cuba, 2012

⁶⁷ From the institutional point of view, the Instituto de ‘Higiene, Epidemiología y Microbiología’ is in charge of investigating and promoting the principles of the Healthy Home under the direction of Carlos Barceló Pérez. A well illustrated introduction to the principles has been edited by Dr. Yamile Gonzalez from the same Institute [GONZALEZ 2013]. A much more comprehensive publication on the subject containing 4684 pages has been published under the title ‘Vivienda Saludable – Medioambiente y Salud’. [BARCELO 2019]

⁶⁸ The Civil Defence System is mainly in charge of mobilizing the population and other resources in response to natural disasters. For more information see [CUBADEBATE n.d].

⁶⁹ Personal observation by the author.



Before and After: Damages caused by the hurricane Sandy 2012 in Santiago de Cuba Bay (Photos: Government of Cuba)

the practical implication of the UN Sustainable development goals for Urban Development and Housing in 2015 and 2016, organized by UN-HABITAT and documented in a number of publications ⁷⁰ - especially the Alignment of Housing in Cuba with the New Urban Agenda (47 pages including annexes). A review of those documents suggests that there was an enthusiastic agreement on the objectives, but very little information about concrete appropriate strategies and activities for the implementation of the same. To tell by the information on the internet, also the global movement of Fridays for Future somehow escaped wider attention on Cuba.

Climate change

As a tropical island, Cuba also suffers the effects of climate change. The greatest risks are linked to the rising sea levels, which cause flooding on the coast of the island. Apart from normal periodical flooding and very slow but steady rise of the sea water level, spontaneous upwelling of the sea (*surgencias*), which is similar to a tsunami, presents a hazard because big waves can likewise cause significant damage and the loss of life. In the interior of the country, climate change has caused a decrease in rainfall during the dry months and a stronger rainy season, which results in more frequent inundations - both symptoms negatively affect agricultural crops.

Adaptation measures against climate-change impacts include relocating homes and entire settlements from the coast to locations further inland. In terms of climate change mitigation, Cuba has started programs to reduce consumption of non-renewable energy, even if the main worries concern fuel costs. Also, the widely spread practice of urban agriculture helps to slow down global warming in cities and is an activity that has been promoted in Cuba since the end of the 1980s. The Cuban urban-agriculture experience has been recognized globally as good practice.

Also, the landscaping in and around the settlement can improve climate comfort in the hot summer months – especially the use of trees for natural climatization through evaporation and shading. A microbrigade district, Arroyo Naranja, had been planned in cooperation with the US Groundwork Institute along Bioclimatic principles and started in 1984, but unfortunately was never fully completed. Another feature of the plan, landscaped access lanes which are not strait and rectangular, is alien to Cuban culture and met scepticism by the population. In another cooperation project of Kassel University in the Chi Chi Padron neighbourhood, the author of this paper experienced the residents' scepticism claiming that visitors would get lost in a curved plan and never find the correct house.



Las Arboledas micro district in Arroyo Naranja (Southern Havana) was built among the trees of an existing forest. The Pedestrian Community was designed to be a pedestrian community which is connected to the larger urban area by bus (and auto). The pedestrian community provides an intimate social environment where children, for example, can walk to school, to the store, or to visit friends without crossing busy streets (plan by Groundwork Institute) ⁷¹

Villa Panamericana, built for the Panamerican games in Havana, combined the rectangular plan of Inner Havana but added trees and other plants

⁷⁰ [UNHABITAT 2018]

⁷¹ See detailed description of the project (and similar ones around the world) under [GROUNDWORK 1984].

Urban agriculture in Cuba

The severe economic crises in Cuba triggered by the disintegration of the Eastern European socialist block in 1990 affected the entire economy but was felt first of all by the lack of food. The availability of imported goods ceased, and national food from the countryside never reached Havana, the greatest concentration of resident on the island, due to the lack of fuel. Urban residents sought an escape by planting vegetables wherever there was an unbuilt piece of land, and this emergency measure quickly developed into the most dynamic Urban agriculture movement the world has ever seen – last but not least because there was a strong support by the government, and specifically by Fidel Castro himself.

Although each farmer find his or her own mode of production, three types of urban farming can be distinguished:

- (a) family gardens for predominantly own consumption, located next to the house or on the roof;
- (b) Parceleros (or Horticulturists' Groups) which are individual or (mostly) collective commercial gardening plots separate from the house and
- (c) so called Organopónicos or 'Granja Urbana' belonging to an institution and producing for its workers or alternatively operated by a formal cooperative and producing for the market.

Although urban farming was started as an emergency measure it has become a permanent small-scale industry in some places.



Small plot in Mariano to produce vegetable for family use



Community garden on a larger empty plot in Santa Fé



Vineyard on the roof a two-storey apartment house in Cerro, Havana. The (one single!) vine plant climbs up from the garden and produce more than 1000 litres of wine!



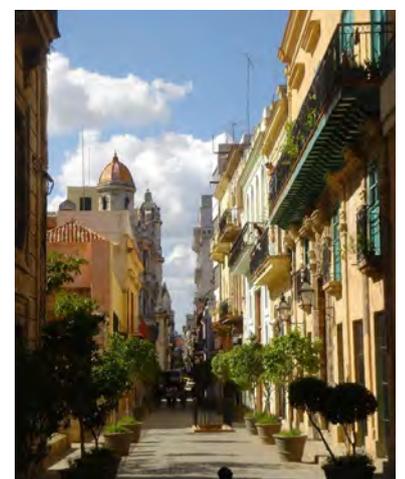
Garden on the roof of a one-family house in Sta. Fé, about 10km West of Havana – a pioneer community in urban farming



Agropónico close to the Plaza de la Revolución (Revolution Square) – national landmark. Its large size indicates that it is probably operated by a ministry.



This shadowed place in the otherwise relatively hostile accumulation of mass housing was probably never officially planned is apparently well received by the neighbours.



Pedestrianization of a road in Old Havana and adding a few flower pots makes a difference.

14 Social Aspects of Housing

The social aspects of housing cannot be considered independently from the remainder sections, but rather represent a cross-cutting theme over the subjects discussed in the entire paper. The social analysis contained in this chapter discusses three questions:

- How can citizens access a home in the first place?
- How has equity been maintained in the housing arena (to an extent almost unique across the world)?
- Is housing to be perceived as a service to be delivered by the Government, or as a collective good, or do people believe that it would be resolved best as an individual effort like in most other parts of the world?

Housing: access and distribution

Almost absolute security of housing-tenure is a unique feature in Cuba compared to the rest of the world. It is a privilege granted to all citizens who already own a home. But an apartment does not grow or multiply, nor move from one place to another, as the population does. Therefore, individuals often find it difficult to enter the housing market initially. Once you have a dwelling for your exclusive use, your social, economic, and spiritual context may change – but your house does not. The physical housing stock is typically renewed in cycles of 50 or 100 years. This is rather long compared to demographic and social changes in the country, and therefore there is always a section of the population which is not considered within the standard housing system for one reason or another. Most socialist states (or socialist parties in countries in other states) lack the necessary phantasy to imagine and consider non-normative lifestyles – even if only a minority conforms with the norm. Fortunately, also in Cuba there are more than only one acknowledged path to access housing (and even better:

many illegal but more or less tolerated ones which may change quickly). The legal modes include the following:

- **Allocation through the state** is the classic model of the socialist government to ensure a basic living standard for the entire population. The high amount of investment required, other unforeseen economic priorities, collapse of houses due to old age or disasters, and the accumulated housing deficit cause a gap between supply and demand for housing and not all applicants can be considered. To regulate the distribution of available units, two priority groups have currently been defined for housing allocation: (a) families who lost their homes by *force majeure* (like victims of a hurricane) and (b) professional groups rewarded priority on the grounds of social merit such as international aid workers returning to Cuba – similar to political refugees in the 1970's. Housing offered to the second group tend to be of superior quality. Access to housing by the state has no economic barrier to the beneficiaries.⁷²
- **Self-built housing** is an option for people in good health, typically between 25 and 45 years of age, who can rely on support from their family and enjoy stable employment that requires residency in one place for an extended period time. The state can help through the provision of a building plot, access to building materials, and a credit covering part of the costs, but a minimum amount of own savings is indispensable. With more funds available, individuals can pay a company or self-employed individual for manual labour, site management, or all the necessary paperwork.
- **Buying property on the market** is also a convenient option for people who have sufficient funds to cover the entire costs, which are usually paid in foreign or convertible currency. A recent graduate or young family is normally not in a position to participate in this market. (See separate paper on the private



High-quality housing for distribution according to social merits



Reconstruction for hurricane victims making use of the Sandino technology in Marianao, 2013

⁷² In some cases, an institution provides housing together with a job. In this case, the occupant is not given ownership of the property, but only a usufruct right of use. Nevertheless, it is illegal to evict someone that does not have an alternative accommodation. This arrangement can lead to permanent accommodation. A typical case is the family doctor who is given an apartment in the same building as the surgery.

real estate market in Cuba by Aline Miglioli in this same TRI-ALOG volume).

- **House swapping** (*permuta*) represents a classic model in socialist Cuba to access a particular residential situation better suited to one's personal preferences and relies on the willingness of both parties to exchange one property for the other. The swap can be done with or without payment compensating for different values. With enough money, the benefits are similar to outright purchase, but as an additional benefit there is no need to pay a transfer tax.
- **Heredity**, the passing on of a house from one generation to the next, should statistically be the most common case in Cuba. However, as ownership of more than one home is not permitted in Cuba,⁷³ this is the ideal opportunity for a young person who does not own any property yet, but for obvious reasons cannot be planned in advance. Individuals who are already house owners must sell one of the two properties, exchange the two for one of higher value (*permuta 2x1*), or make it a donation to another family member.
- **The donation** is a situation comparable to early inheritance, designed for people who plan to emigrate abroad for good. Under previous legislation, they lost their property to the state.

In the survey conducted in preparation for the UN Habitat Housing Profile, exchange and inheritance were the two most common ways to access housing. Even if the above list of options to access looks rather comprehensive, all of these alternatives imply certain preconditions possibly not suited to the typical house seeker like, for example, a young man or woman who changes the city of residence because of a new job or study, or who simply decides to leave the home of his parents, or stepparents, and start a life of his or her own. The same is true for newlyweds, or for a recently divorced person (the average length of a marriage in Cuba is 10 years and a divorce does not have economic consequences as in most other countries). Therefore, it remains a challenge for the

country's housing policy to offer a housing-access solution for those citizens who are subject to these conditions.

Equity and spatial segregation

For a foreigner it looks rather unusual that in Cuba the personal residential circumstances or the neighbourhood of residence do not in any way reflect (or affect) the social and economic status of its residents, even if most people agree on which place would be a "desirable" one, and which is not. There are doctors and even airline pilots who live in an informally-grown neighbourhood in the same way as an unemployed family with many children may reside in a mansion with a garden and pool because their parents happened to live there as domestic servants before the Revolution and before the previous owners emigrated. With the new law that legalizes the unrestricted sale or buying of property on the market, however, territorial social segregation – which was typical during and before the 1950s - may stepwise reappear. The law of the market and high-maintenance costs for high-standard housing cannot be ignored. Strategies to slow down gentrification processes could include locating student accommodation, hostels, housing without garages, etc. in neighbourhoods of higher demand.

Participation and decentralization

Neighbourhood initiatives have always existed in Cuba, but there have been periods when they received more support from the state than in others. Many of those initiatives have been fostered by the Integral Transformation Workshops (*Talleres de Transformación Integral del Barrio*) which were installed particularly in the socially complicated neighbourhoods of Havana in 1988. *El Club de Agricultores in Sta. Fé* (from around 1990 onwards)⁷⁴, the program for the promotion of local building materials,⁷⁵ the Popular Movement in the late 1990s, and the Municipal Initiative for Local Development (IMDL),⁷⁶ represent a few examples among many. The guidelines approved by the 6th Congress of the CCP in 2011 were formulated by a country-wide participatory process and guide the ongoing updating of social and economic policies.⁷⁷



Public participation is sought in many decisions at the local and central level



Street art generated through the initiative of local residents in Old Havana

⁷³ Aside from owning a second holiday home in the countryside or on the coast.

⁷⁴ See the detailed research report: [MATHEY 2006]: Mathéy, K. et al.: *Factores que contribuyen al éxito de las iniciativas comunitarias a nivel barrial*.

⁷⁵ This program was coordinated by the Center for Research and Development of Structures and Materials (CIDEM) of the Marta Abreu Central University of Las Villas (UCLV).

⁷⁶ From this experience, which began in 2009, 154 projects of the IMDL have been approved; they are currently awaiting the approval of 96 other projects.

⁷⁷ For example, law No. 113 of the tax system enables a new source of funding for municipal budgets, thus providing the opportunity for local authorities to place the application of funds where they are most appropriate.

15 Gender, Disadvantaged Groups and Minority Initiatives

When referring to the disadvantaged, the first group that is most frequently referred to in most countries are female. Other disadvantaged groups may be seniors, the youth, internal migrants, and the disabled.

In respect to women's rights, the situation in Cuba is excellent – not only because of the legal protection they receive, but also because women stay economically independent from their husbands. They receive the same salary and the same pension as men - independent of whether they are house wives (*amas de casa*) or professional workers. A large number of women occupy leading positions, including at various levels of government. Though there exist cases of domestic violence, it is reported that this is not exclusively committed by men – an eccentric manifestation of equal rights.

For a foreigner, it is also surprising to notice that in Cuba women are represented in all professions, including construction works, as within the context of the former *social microbrigades* where women used to represent the majority. Likewise, there are certain self-employed occupations which are dominated by women (for example: renting rooms, private restaurants [*paladares*], hairdressers, and others).

Other groups, such as senior citizens, tend to be a more vulnerable group than women. When the survey was conducted, 42% of the elderly did not have the economic means to fix their homes. In addition, many of them needed specific constructive facilities in their homes, such as access without stairs, doors through which a wheelchair could pass, or support facilities that were not foreseen at the time when the houses were built or renovated.

The existing housing stock is still discriminating modern lifestyles which may not correspond to the conventional family pattern – including, among others, those facing unemployment or seeking residential independence from their parents. The most typical deficit would include, for example:

- More apartments for the large number of singles living on their own.
- Availability of rental housing (outside the tourist sector) due to unstable situations in respect to future professional occupation, economic position, or family status.
- Economically-priced starter homes of one to three bedrooms for young couples. These dwellings can be built via self-help efforts only when couples have access to sufficient credit.

A third group suffering from unfavourable conditions of accommodation are internal migrants. Unrestricted migration within the country only became legal a few years ago, and this has resulted in the arrival of a considerable number of people in the urban centres that were neither prepared nor equipped to deal with the new housing demand. Unless more favourable conditions are created, the affected individuals might try to find their luck in outmigration abroad, which would imply a loss of valuable manpower for the country.



In Vila Cienfuegos, these two elderly residents operate the lift in a high rise building and not only take care of tidiness, replace a concierge known from other countries, but most of all, feel that they still have a task in the community and enjoy the constant contact with their neighbours (Photo: Silvia Matuk)



In the microbrigades, women are normal members of the work force. Although many of them are well built, they tend to be given the more delicate jobs like plasterwork or operation of the crane. In social microbrigades they represent the majority of workers.

Finally, disabled individuals must not be forgotten as a group that needs special attention. Many have access to a good institutional structure, but insufficient attention is given to the adaptation of public spaces and buildings to their needs. It is necessary to ensure that all public buildings have easy access without stairs and non-slip floors, and that the curbs of sidewalks on the street are lowered. Currently, the proper sidewalks are full of holes, forcing many people to use the street instead, which can become a dangerous venture. This need does not only relate to the handicapped, but also to the elderly and children. Nearly 20 percent of Cubans are over 60 years old and, in the very near future, a third of the island's inhabitants will be senior citizens. As pilot scheme, an old-age people's home with 24-hrs nurse attention homes have been fit into a rebuilt collapsed house in Old-Havana – right in the neighbourhood where they lived before. By 2015, a total of 140 of such '*casas de abuelos*' were supposed to be opened all over the country.⁷⁸ By accommodating them in a more appropriate dwelling, most of the residents will vacate an existing – and often too large – dwelling which will also help a young family without a proper home.



Broken walkways are a hazard not only to the elderly and often do not receive adequate attention.



Cuba enjoys a relatively good health service to its population, which manifests itself by a growing proportion of elderly in society, while the 'Hogares de Abuelos' offer permanent lodging with medical assistance, the 'Casas de Abuelos' specialized on integral attention, including health, education, entertainment etc. (Photo on the right hand: Erich Trefftz)



16 Present and Upcoming Challenges

The appraisal of the Cuban housing conditions must acknowledge a large number of achievements superior to the situation in other countries of the Global South (and in certain aspects also compared to the Global North). But where we have sun, there must be shadow as well and the country is suffering from a long list of deficits which are being pointed out and explained by interviewed residents, and also by parts of the government. In fact, self-criticism seems to be the recipe behind one of the most stable governments in modern times world-wide. The manuscript for the UN-HABITAT Housing Profile – prepared by the same author as of this paper – concluded with a list of 20 key problems in the national housing sector, which can be explained by at least 37 underlying causes. Since a long-term solution to a problem must necessarily start by dealing with their roots, 57 different possibilities to resolve or alleviate the 37 causes. As an academic exercise, a certain degree of abstraction is unavoidable, and for attaining visible effects in practice, priorities among them depend on the local and political situation.

To conclude this summary of a much more profound research, ten of the most urgent housing challenges shall be summarized and certain practical strategies suggested in response to the same:

REGULATORY AND LEGISLATIVE FRAMEWORK: Streamlining housing legislation and development control.

Review and simplify the current body of numerous laws, regulations, decrees etc – preferably in one single document. This can help to make the existing regulations better known, controlled and respected. One or two comprehensive legal documents are easier to manage than more than 100 separate regulations!

PRINCIPAL STAKEHOLDERS IN THE HOUSING SECTOR: Engage one single institution to direct processes of urbanism and housing development.

Housing and urban development are interlinked in a highly complex system and can only be managed well in an integrated and comprehensive manner. The necessary interdisciplinary task

cannot be split between different ministries. With the recommendations of the 6th Party congress in mind, it is important to give more powers to local institutions.

PRODUCTION AND SUPPLY OF HOUSING: Broaden the scope of self-organized construction models.

Current housing policy has assigned an important role to housing provision by the people, yet the response of the population remains very low. It seems that the existing opportunities of the sector do not fit all the existing needs, and a broader engagement of the target group is conceivable and possible with the stipulation of adequate organizational alternatives:

- Expand the concept of the Community Architects Program to include all unemployed or retired architects (after having undergone adequate preparation) which allows potential home builders to choose the one estimated best for their needs. There is a large amount of professional manpower and enthusiasm available that can be taken advantage of.
- Administrative requirements are complicated and consume a large amount of energy. A one-stop office could easily be created where all paperwork is assisted in one go.
- The conventional mode of individual self-help construction has serious limitations due to the excessive length of construction and trouble in obtaining all necessary building materials. The availability of complete and modularized construction sets [endless combinations possible] could reduce the construction period from 5 years to one month.⁷⁹ Such an offer would skyrocket the acceptability of this mode of construction.
- Simplify the administrative procedures, which currently involve long process times for getting self-constructed dwellings recognized.

⁷⁹ There are international experiences that show the feasibility of this idea. A student competition linked to an International Congress of Architects (UIA) or UN-HABITAT can generate a large number of high-quality typical projects to choose from.

- Collective self-construction is a solution for overcoming the restriction of low urban densities adherent to individual self-help construction. It would also allow the integration of individuals who are not in a position to undertake the construction of an entire house on their own. The prestige of the former *microbrigades* can be borrowed to create a more-flexible, collective, self-help house-building program and allows more tailor-made typologies.

COSTS AND FINANCING:

Operate a self-financing social housing program.

Rent pooling, revolving fund and cooperative investment schemes regenerate the initial investment cost of housing by spreading the expense over more heads and a longer period. The most popular models that have worked (or still work) internationally are municipal projects and cooperatives. Such systems can also provide the non-profit, rented housing accommodations needed by a rather mobile part of the young population.

DEMAND AND NECESSITIES OF HOUSING:

Qualitative needs.

Housing construction by the state, due to a lack of reliable data, so far only responds to the quantitative needs based on statistical data. The currently offered housing typologies are not appreciated by the population. Therefore, it is necessary to analyse the qualitative requirements in more detail. In practice, participatory design is the most efficient way to learn and build to the specific needs of the population.

MATERIALS AND THE CONSTRUCTION INDUSTRY:

Enhance the offer of building materials.

One of the key bottlenecks in Cuban housing provision is the limited availability of construction materials. In the state sector, housing has to compete with other key sectors of the national economy for its share of building materials production.

A sudden increase of availability cannot be expected in the short run. However, the experience of the fast rise of housing construction in the late 1990s has shown that non-centralized, non-industrialized building materials can produce a similar output as the conventional state industry. Both together are able to double the output.

LAND AND ITS URBANIZATION:

Accelerate urbanization of building plots.

A severe problem is the slow progress in urbanizing building land. One of the hindrances is the time needed for the coordination of the different trades involved. This can be fixed through the creation of integrated and autonomous urbanization companies which include all needed trades in house, including for example civil engineering, construction engineering, landscaping, and all other networks.

SOCIAL ASPECTS OF HOUSING:

Maintain social integration.

The new system of buying and selling homes may trigger gentrification tendencies. Efficient counterstrategies should be timely conceived and implemented.

GENDER AND DISADVANTAGED GROUPS:

Respect vulnerable groups.

Adapting public space to meet the needs of the disabled and the elderly is necessary, as these two disadvantaged groups are characterized by their reduced mobility.

OUTLOOK:

Develop local resources.

Since 2011, the political will envisions the transfer of certain powers of decision making, housing provisions, and other responsibilities to local governments. Not all municipalities are sufficiently well prepared to assume such responsibilities at once and may require support and training.

17 Sixteen Lessons Learnt

Most achievements in Cuban Housing Policies date back a long time: Therefore, one might ask what is the point of dedicating an entire TRIALOG volume to this rather historical experience – and what could be lessons learnt from the same for today – if any. I would argue that internationally, the housing question has not been resolved fundamentally, in spite of the undeniable technological progress and an increase of access to material resources available to most states.

However, the key problems – which are not very difficult to understand - have factually not been resolved anywhere, although many answers of the historical approach in Cuba can provide a number of very simple and universally effective lessons. It would be unrealistic to expect that even a revolutionary could avoid to commit errors or did not foresee unexpected results (although they were mostly prepared to revise decisions with unexpected consequences – which in my opinion saved Cuba from the collapse we have seen in Eastern Europe). Nevertheless it is worthwhile to highlight those policies which were successful and can be considered as valuable lessons worthwhile to be learnt from elsewhere.

In this concluding chapter I will outline 16 lessons to be learnt from Cuba housing policies since the revolution until

today. In order to facilitate the correlation with possible inspiration for responding to current housing problems and practices elsewhere on the globe, I suggest a correlation with the standard instances of habitat strategies ‘Production, Distribution, Consumption and Culture’.

PRODUCTION OF HABITAT

[1] Housing for the Poor

One of the key motivations behind the Cuban revolution was the need to overcome the extreme gap in income and living conditions between dominating rich and white population on the one side, and the majority of the poor native black ‘Mestizo’ population. At the time, this inequality was very visible in the contrasting housing conditions between both groups. Therefore, one of the first achievements of the revolutionary government was a massive social housing program which was implemented under the direction of Pastorita Núñez immediately after the triumph of the revolution – and which not only architecturally can still be considered one of the best samples of such programs world-wide.

The experience shows that Housing for the Poor does not necessarily imply ‘poor architecture’.

[2] Construction productivity

Since about the 1960's and 1970's, there has been a move towards prefabrication in mass housing internationally, and typical expectations include a faster construction process and reduced construction costs. For various reasons, the practical results rarely confirmed those assumptions. In addition, the residents tend not to like those buildings and consider them a second choice; and Cuba is no exemption. Although initially only intended for rural settings, Cuba also introduced the small panel prefabrication system known as 'Sandino' in the 1970's, which is still in use today. The elements can be produced without heavy machinery on any building site and can be assembled without the need of a crane. Therefore:

In spite of its bad reputation, Mass Housing and Prefabrication do not exclude high residential qualities. This is particularly true for small size elements, like the 'Sandino' system which helps to speed up construction period and to save on machinery – usually lacking in rural areas.

[3] Economic slump periods

House building is a labour-intensive business, and most of the materials tend to be of local or at least national origin. In the severe blockade period following the missile crisis in the 1960s, most Cuban factories stopped working. However, sacking the staff was not an option in a socialist system as the workers had to be nourished anyway. By establishing the *Microbrigade* system, these workers switched from in-house employment to building the urgently needed housing on a building site – especially in response to the baby boom that had followed the revolution. Also, during two later periods ('*periodo especial*' and again in the last 8 years) the *Microbrigades* had been reinvented to make use of 'idle' reserve labour resources for the purpose of providing the needed housing accommodation.

Housing production can counterbalance periods of economic slump.

[4] Incorporated Energy in conventional construction technologies

To a large extent, modern construction technologies rely on cement as a binder, which is highly energy intensive in its production - and in most countries implies expensive imports of coal or oil apart from its direct CO2 intensive emissions. Especially in the '*Periodo especial*', Cuba sought for alternative construction technologies. Stabilized Earth construction seemed to be an obvious alternative to concrete-based technologies. In fact, a small proportion of cement in an earth wall can do the job. However, earth construction implies massive (thick) walls, and even a small percentage of cement in a thick wall requires more cement in absolute terms than, for example, the concrete panels of the Sandino System. Equally, the light-weight concrete roofing tiles require less energy than the traditional red tile roofing – and certainly much less than the concrete slabs in today's standard constructions.

The economic scarcity period that Cuba went through as a consequence of the US embargo, also inspired research into other alternative building materials, mostly of vegetative origin. While the centrally guided national construction industry was and still is dominated by the Ministry of Construction, recent advances in decentralized political decision making opens more space for municipal initiatives, like in the case of using of local materials

in the central and eastern part of the island. At the same time, many buildings made from these 'alternative' building materials qualify as 'healthy construction' – field in which the Cuban Institute of Hygiene is a leading institute on the American Continent.

No need for Brick and Mortar

[5] Flexibility in use of public infrastructure

Similarly, to the effect on simple 'housing construction', the different instances of the imposed international trading blockade impacted on urban land use patterns. For example, one of the first measures of the 'Special Period' (1990 onwards - right after the economic and political collapse of the *Comecon*) was the importation of 700,000 bicycles (mostly from China), Cuba invented first 'Pop-Up' Bicycles lanes along the main urban traffic arteria - though not a long-lasting venture while imposed from above (but a new and spontaneous bicycle movement returned over the last 5 years). More importantly, and lasting longer as well, was the introduction of *Urban Farming* as an officially promoted and partially permanent innovation. Also, in respect to the promotion and/or legalization of private restaurants and accommodation of tourists in private homes, or regarding farmers' markets in the city, the land-use regulations were changed very quickly, or restored to previous practice if the results were different from what was expected.

In periods of economic crisis, sector-specific modes of production and unexpected windows of opportunities can be introduced or adopted rather quickly – but also abandoned again if the expected results did not realize. Even in Urban politics the Trial-and-error strategy can be a clever political strategy for sustainable urban planning.

DISTRIBUTION

Housing Distribution extends to basically three key instances: Access, Affordability and Security of Tenure – merely interrelated elements of an administrative and political mosaic.

[6] Security of tenure

Different from other Latin American Countries, In Cuba you won't see crowds of homeless people living in the street, and also large squatter settlements don't exist. How come? Since the revolution, every citizen has a right to housing which the state assumes to guarantee as much as possible, and nobody can be evicted of without being offered an alternative accommodation. To accommodate personal preferences and need, residents may swap houses.

To be precise: in Cuba, all evictions are illegal. If houses collapse, for example, the displaced residents are offered emergency housing – not ideal, but better than nothing. Even residents who owned a big house before the Revolution, had the right to remain in their residence, even if it was an unproportionally huge palace. In cases where the owners emigrated abroad, the servants staying behind would remain on the premises considered as part of the household.

Homelessness can be avoided when evictions are outlawed, since everybody is born in some dwelling. But overcrowding can be the price for the measure. This consequence can be alleviated through facilitation of house swaps and the provision of emergency shelters.

[7] Affordability.

House building is expensive and very few people have the necessary funds for buying a home upfront. This is the logic behind the existence of rental housing. However, private homeowners will only rent out a home if this business was profitable, which impacts negatively on affordability for the user. Like other states too, Cuba embarked on building and offering affordable rental housing since its existence, but soon faced the problem of the costly maintenance which could not be recovered through the collected rents. Therefore, in 1984, all social housing (after a certain minimum period of occupancy) was handed over into the property of the renters who can take care of maintenance at a lower cost.

However, not all people like to live in a standard social home but want to adapt their living space more in line to their personal needs. Also in Cuba, this target group have the option of organizing the construction of their home on their own – usually through incremental self-construction.

Notwithstanding the existence of very successful rental social housing programs in certain other countries, in the Caribbean and similar cultural contexts social home ownership programs turn out more efficient in the long run.

[8] Land speculation

In most countries, the cost of housing construction and maintenance impacts less on the housing cost of the residents than the price of the land on which the houses are being constructed. Rising land values provide fantastic speculation gains for the investors, without need of any personal extra effort. In revolutionary Cuba, land is national property and cannot be sold, therefore the possibilities for individuals to cash in rising use values of the land are very limited. On the other hand, some holders of large chunks of idle land have no incentive to release these lands for other socially needed uses, which also increases the relative cost of infrastructure provision for the municipality. Theoretically, that problem could be fixed through charging the true cost of infrastructure to land use holders.

Removal of land ownership from the private property market can significantly reduce the cost of housing and control the type of development (i.e. prevent luxury renovations).

[9] Property speculation

Apart from land values, multiple house ownership is the basis for property speculation. In Cuba, this possibility has almost been eliminated by the very simple rule that every person/ family may own only one single house or flat (to be precise: one in town – plus another holiday house is permitted in the countryside). In cases of divorces or marriages, home swaps allow to obtain one bigger flat instead of two smaller ones and vice versa).

Only the possibility of multiple home ownership allows for property speculation, and excessive home rents as a consequence.

[10] Housing for the refugees and other unforeseen needs

Even if fair and equal housing conditions were catered for in the general housing policy, there always exist emergency cases which have not been foreseen in the standard housing policies. Cuba has not been the Eldorado for labour migrants as Europe

was over last decades, but the country used to be a destination for political refugees for long, and especially after the establishing of the Chilean dictatorship under Pinochet in the mid 1970's. Other cases can be the victims of hurricanes or any sort of personal tragedy. Therefore, in the state housing schemes as well as in the collective self-built housing schemes of the Microbrigades, a certain percentage (mostly 10 or 20%) of the available flats were reserved for those 'Solidarity' units (i.e. for refugees).

There always are certain disadvantaged groups who fall through the gaps in the housing system – or at best, tend to be segregated in camps, temporary shelters etc. such practice tends to reinforce social stigmatization. By automatically reserving a small percentage of subsidized units for these groups, social integration is much more easily achieved.

USE & CONSUMPTION

[11] Heritage Conservation

Historical buildings tend to be more expensive in maintenance and restoration because of age and non-standard design elements. Due to the numerous and rich aristocracy before the revolution, Cuba has inherited plenty of architectural gems – even some dating from the early revolutionary period, and only a tiny fraction could be restored and maintained with government funds. In Havana, the late city historian Eusebio Leal convinced the government to let the Havana Office for Heritage Conservation engage in a profitable hotel and restaurant business and to reinvest the gains in the restoration first into these properties themselves and then also to save other listed buildings in Havana, and later also in Santiago de Cuba, Trinidad and other heritage sites.

On similar principles, the Chinese community in Havana was granted permission (although only over a certain period) to renovate their 'Chinatown' with its proper funds generated from private business gains, on which they were obliged to pay only a modest 10% flat rate tax. Unfortunately, both successful ventures ceased when state institutions claimed management of these properties again in the post Castro period.

A strict and dogmatic division between a 'profitable' private economy and a non-profit 'regulating' state engagement is not always helpful and even benefit the entire society. But an objective cost-benefit analysis can help to assess and optimise the benefit for the entire society.

[12] Community Development

All over the world, there exist 'problematic neighbourhoods' whose residents tend to be stigmatized for educational deficits, religious or ethnical customs, neglected physical space or just greater poverty levels. In Cuba since the 1990's, special community development programs (*Talleres de Transformación Integral*) aim at valorising hidden cultural resources and help to emphasise their unique artistic richness – apart from simple educational support in fetching up possibly neglected general knowledge and capacities. Also, some physical improvements can support this effort, like playgrounds, street lighting or renovating local monuments.

Universally, there is no use in denying the existence of stigmatized neighbourhoods or even to blame their residents for whatever are the deficits and their underlying causes.

The Cuban Talleres de Transformación Integral are a good example for successfully valorising dormant cultural treasures in such neighbourhoods and proved to be an instrument to reinforce the self-esteem of those communities and to counter social discrimination.

[13] Urban agriculture

During the so-called Special Period following the fall of the Berlin Wall, and the subsequent collapse of the COMECON, Cuba's trading partners had gone and even daily food supply became scarce. Many residents spontaneously started to grow food in their back gardens, and very soon this initiative was backed up by government programs – mostly very successful apart from a few counterproductive regulations. Very soon, the Cuban Urban Farming experience gained due recognition world-wide, and many private and cooperative gardens continue to be cultivated today – for self-consumption, others as an income generating activity.

Although Urban Agriculture practices tend to conflict with planning legislation, including bureaucratic land use regulation in most countries, it would be more intelligent to change the law rather than to criminalize this practice.

[14] Disaster Prevention

In general, the Caribbean is frequently hit by tropical storms, high tides and, in certain areas, also Earthquakes. In each of these events, the fatalities in Cuba only represent a tiny fraction of those experiences in the neighbouring islands such as Haiti and Santo Domingo. In Cuba, the material damages may be more severe, but when you visit those places six months later, it can be difficult to identify the affected areas. How can this contrast be explained?

Both: Disaster prevention and recovery are the responsibility of the Cuban Civil Defence System which have offices in each municipality while their coordinating headquarters are in Havana. For example, when in 2012, the hurricane Sandy – the strongest one that hit the island in half a century – hit South-Eastern Cuba, 340,000 people were evacuated, 17,000 houses were destroyed, and 11 people died in the country as a consequence - while the death toll in the US was 150! Like in other similar instances, the national Civil Defence System could mobilize repair squads from all over the island. Only a week later, all houses were reconnected to the electricity grid, and when I arrived in the region a year later, I could not find and identify any hurricane damages – they had all been fixed by the Civil Defence system in collaboration with the local municipalities.



Kosta Mathéy

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Decentralization is great for resolving local issues, but when the problems and tasks exceed locally available resources, well prepared central resources and decision-making rules should dispose of back-up resources and decision making powers.

[15] Healthy housing

Houses provide protection for families and individuals against environmental hazards, but they can also cause threat for the health of its inhabitants. Radioactivity, electromagnetic stress, dangerous construction materials like asbestos, constant noise are just a few examples of potential hazards. In market economies, impartial information about such dangers is often suppressed for financial interests of the producers or corrupt politicians, while in Cuba such profit-driven disinformation mechanisms lack in the institutional landscape. The Cuban *Red Cubana de Vivienda Saludable*, was the principal promoter of the *Latin American Healthy Housing Network* which is now operating in 18 countries in the region.

In the daily course of an individual's regular activities, housing constitutes a space of high vulnerability for human health dependent on elementary biological, social and psychological demands in respect to his physical environment, especially the house and its immediate neighbourhood.

[16] Gender roles

Conventional division of labour attributes the responsibility for upkeeping house and home to the female family members, while the men's role was tied to the provision of food from outside the homestead. Advancing division of labour and the introduction of labour wages (for the men) shifted the balance from mutual dependency towards an increase of dependency for the female sexes in the majority of cultures. In revolutionary Cuba, the inclusion of women in the waged labour force removed the economic base of unequal gender dependency (although certain occupational patterns still persist in many households). The most remarkable achievement in gendered equality is the equal right to a flat-rate old age pension for both men and women – independent of their former employment status.

The idea of the old age pension is securing worthy and respectful living conditions for all citizens – independent of the profession, gender and formal employment status. This idea is increasingly being discussed as an option in form of the basic pension (Grundrente) in advanced market economies – but represent a long-established reality in Cuba (although – like all salaries – sadly too low to live comfortably).

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The Real Estate Market in Cuba after Decree-Law 288

Aline Marcondes Miglioli

The real estate market in Cuba: general context

The ongoing transformation in Cuba aims to modernise the socialist system in accordance with the new global geopolitical configuration. Since the end of the Soviet Union in 1990, and due to the economic embargo against Cuba, the country has faced economic disruption and commercial isolation. This new scenario has engendered several radical changes, such as the strengthening of tourism to become a strategic sector of the Cuban economy, or relieved the state from certain responsibilities, e.g., house maintenance and providing employment for all (Rodríguez 1993). Two major milestones in the process of updating Cuban socialism can be identified: the legalisation of self-employment in 1993 (although controlled by the state through the requirement of personal licences to perform these activities) and the liberalisation of the real estate market in 2011, approved by the 4th and 6th Congress of the Cuban Communist Party, respectively.

Self-employment was authorised as a means for Cuban workers to complement their incomes during the economic crisis of the 1990s. This included several individualised services, e.g., restaurants, bars, hairdressers, and rental accommodation for tourists (Izquierdo et al. 2003). Today, self-employment offers opportunities for 'social ascension' and a potential (and often significant) source of income, although the sector corresponds to just 12% of the total jobs on the island – even if the state remains the principal employer (Onei 2018).

The Urban Reform Law of 1960 (right after the Cuban Revolution) proclaimed the right to a decent home to every Cuban citizen, and aimed at eliminating real estate speculation by redistributing the entire housing stock to its occupants and banning the real estate market, respectively. Consequently, the state became responsible for the construction and distribution of houses. An attempt was made to reactivate the housing market in 1980, but was banned again five years later due to the rise of rampant speculation; the intermediate solution was the establishment of *permutas*, i.e., swapping houses of equal size and quality.

Legalisation of the real estate market came up again in the efforts to update Cuban socialism, as published in the Guidelines to Update the Cuban Economic and Social Model (2011), also known as 'Lineamientos'. Initially, the Communist Party did not plan to include the liberation of the housing market, which was added as one of the results of the countrywide popular consultation process.¹ At the time, it was considered one of the most sensitive agendas of the guideline's discussions because it touches an important aspect Cuban daily life: since the urban reform in 1960, families have remained confined to their original or once-allocated homes, despite the changes over time in the original composition of the family nucleus. Despite of the possibility of housing swaps (known as '*permuta*'), its restriction to non-monetary transactions often resulted in situations where single persons occupied a huge house while

entire families shared a small residence. The existing alternatives for purchasing a house were insufficient: acquiring a dwelling was difficult as the state had to either build them or provide the land for self-built construction, and the waiting list prioritised emergency situations such as single mothers and/or victims of natural disasters.

The Decree-Law 288

The Decree-Law 288 (DL 288) of 2011 (Cuba 2011) re-authorised the purchase and sale of housing on the island. To avoid the international ownership of land of the past, it only allows the commercialisation of housing between Cuban residents or nationalised foreigners. After the Revolution, real estate speculation was already meant to be prevented by limiting home ownership to a single urban residence – plus one holiday home, at the beach or in recreational areas.

The legalisation of the housing market has resulted in the emergence of new agents and new activities. Since 2014, real estate agencies and listings on the internet have arisen in Cuba. Previously, people interested in buying or selling a house would meet at specific places, such as the Prado in Havana, where the *permutas* were traditionally negotiated. As in the times prior to the *permutas*, it is now also common to see handwritten 'For Sale' signs in front of houses (see Fig. 1).

To broaden the dissemination of these adverts, common capitalist advertising tools have developed in Cuba, such as the creation of specific advertisement segments or spaces in the 'Classified' sections of television shows, radio programmes, newspapers, and magazines.



¹ The process of popular consultation is based on mass discussion (in work centres, neighbourhoods, and party commissions) of a previously elaborated document by the Communist Party. They are then organised and put to the vote in the Communist Party Congress by its delegates. To elaborate the *Lineamientos*, 163,000 meetings were held with more than 9 million people, in which 60% of the 291 original points were modified, followed by a debate in the municipal spheres with 978 party delegates and 216 guests during which 50% of the points were modified. In the third and final stage, the same document and the suggestions from the previous stages were discussed by the delegates at the VI Congress of the Communist Party, resulting in 86 changes to the original document and the addition of 22 new points (Stocco 2013).

Figure 1: Typical sign announcing a house for sale in Havana. Source: Author's archive.

2 Self-employment in Cuba has been given the name *cuentapropia*.

3 A quick check counted 300+ available Airbnb accommodations for June 2021.

4 The United States banned tourism to Cuba from 1959 until 2015, when President Barack Obama loosened some restrictions of the US embargo. One great change in 2015 was the possibility for US cruisers to dock in Cuba, which also caused an increasing number of visitors to the island.

From 2014 onwards, the recognition of the 'property manager' as a self-employment job has opened new means to connect buyers and sellers of houses in Cuba. But their field of activity was by no means an innovation: a large number of them were now only openly continuing what they had done illegally before as 'corredores', i.e., people specialised in gathering the exchange requests of their clients and arranging meetings between equivalent homeowners. But now, the activity has become more complex: specialised privately or state-owned real estate agencies now provide specialised services such as registering, advertising and selling housing; examples include the firms Zafiro, Por el Techo, Detras de La Fachada and La Isla, among others (see Fig. 2).

In addition to the individualised services provided by these agencies, private classified newspapers specialising in housing advertisements have emerged, like El Papelito (see Fig. 3).

Among the specialised websites, the most famous ones are Revolico and Cubíssima, which correspond to eBay. These tools not only amplify the circulation of the advertisements for the benefit of the sellers, but also allow a comparison of requested price levels and the range of offers on the market, which also benefits the buyers.

The real estate market ten years after Decree-Law 288 of 2011

As of 2021, the Cuban real estate market has been in operation for 10 years. Throughout this period, there has been an increase in the number and complexity of the services involved in the buying and selling of houses, but also in the regulations, jobs and tools that serve this market. Considering the large number of persons now working in this profession, a return to the ban on buying and selling real estate is unthinkable, albeit not impossible. For Cubans, the facilities that emerged as a consequence of DL 288 meet the demands of those who want to move to a bigger or smaller house

or across the territory. The law also meets economic demands by allowing Cubans to keep the money from the sale and build up savings, as up until 2011 any form of monetary compensation involving housing was prohibited. For those interested in setting up their own *cuentapropia* ² business, it is now possible to buy a suitable house for the purpose of converting it into a pension or a restaurant.

However, negative outcomes of the relatively new real estate market are also being experienced by Cubans. The main point of concern is the high cost of housing compared to the average Cuban income. Houses can only be paid for in full at the moment of the transaction. Therefore, in the absence of a mortgage market, purchasing a house is an option only for those who have sold a house and thus have the disposable funds necessary to buy a new one, those who receive remittances from family members abroad, and/or those rare exceptions that have managed to accumulate some savings (e.g., from another private business [por cuenta propia] venture, like owners of trendy restaurants or exceptionally successful artists).

The bureaucracy involved in the formalisation of the transactions is also receiving much criticism, as is corruption and/or the exploitation of loopholes in the legislation, including fake marriages or the use of a 'stooge' (for example, when a foreigner pays a Cuban to illegally use their name to buy a house in the country). Furthermore, the social urban effects of the real estate market are becoming evident, including gentrification, the concentration of tourism in certain neighbourhoods and cities, and the Airbnb phenomenon, ³ the last of which is causing a real estate bubble in touristic centres as a result of expectations of increasing North American tourism in Cuba. ⁴ Another threat could be the termination of the dual currency in 2021, whereby the naturally restricted local currency market provided subsidised basic-need supplies still affordable even for the population without a regular income.

Figure 2: La Isla, one of the first and principal real estate agencies in Havana. Source: Author's archive.



Figure 3: El Papelito – private classified advertisement paper. Source: Princeton University Library Catalogue 2021.

Next page:

Figure 4: Average price per square metre by municipality: Havana, 2016 (US\$). Source: Data collected from La Isla, Detrás de La Fachada, Por el Techo & Zafiro.



Over the past 10 years since the passage of Decree Law 288, certain adaptations in the Cuban attitude towards this developing market could be observed. The purchase and sale of housing grew substantially in the first years after the DL 288: in 2012, 45,000 homes were reported to have been sold; in 2013, the number grew to 88,000 and, in 2014, it was estimated to have exceeded 100,000 annual transactions (Garcia 2018). There are no data available for the subsequent years, although it appears that there has been a drop in the number of transactions since the real estate market is linked to the tourism industry – which has suffered from the intensification of the US economic embargo under Trump (Garcia 2018).

A surprising phenomenon is the large variation between the lowest and highest prices advertised: in 2019, Revolico registered a US\$300.000.000 sales advertisement (ADN Cuba 2019), which could at best be evidence of the belief in miracles by some Cubans. Despite the outliers, it is possible to identify two dominant price ranges: the more-modest houses, with simpler architectural design, cost between US\$5,000 and US\$25,000; and the other group, larger houses built with higher-quality construction materials and possibly including swimming pools, gardens or garages, are priced from US\$25,000 upwards. ⁵ The latter generally falls into the category of ‘capitalist’ houses, i.e., built before 1959, while those built after 1959, especially by the micro-brigade social movement, tend to be devalued in the market due to their lower construction quality, poorer quality of building materials, and simpler architecture. The terms ‘capitalist’ and ‘micro-brigade’ originally only designated the construction date and type, but now the real estate market also uses them to differentiate their social use: while micro-brigades are suitable only as dwellings, capitalist houses present potential commercial use in business and tourism.

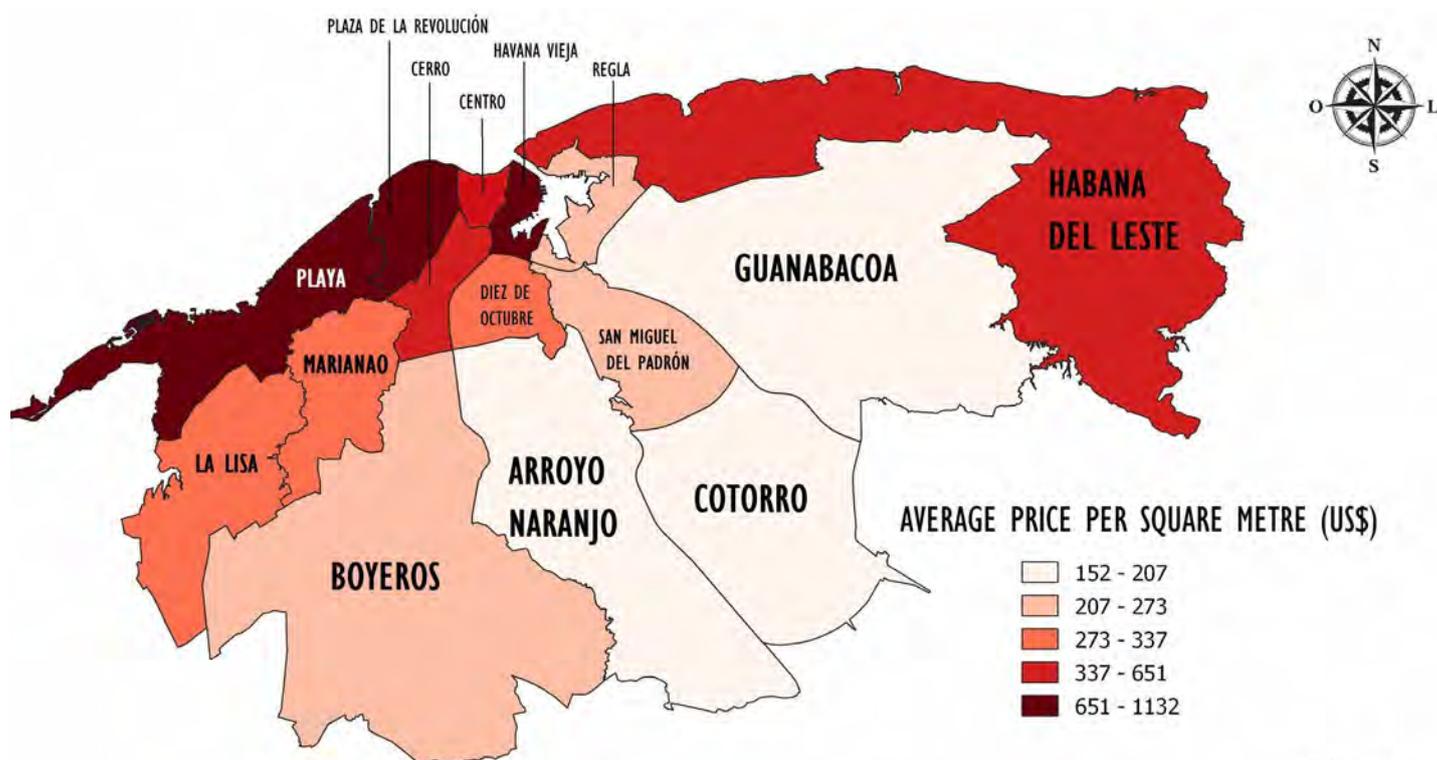
The location of a building and its commercial attractiveness are crucial elements to understand the price dynamics, especially in respect to the potential for self-employment activities (such as restaurants and room rentals). Like elsewhere in the world, real estate pricing depends on the location. Therefore, the average house price between Havana and the rest of the country, and within Havana, differs in line with its touristic attractiveness and housing typology (capitalist or micro-brigade). The map on this page shows the differences in prices in Havana in 2016. As one can note, the coastal touristic municipalities of Playa, Plaza and Old Havana had the highest average prices in US\$ per square metre.

Final remarks

The development presented above raises doubts regarding the current validity of the Urban Reform Law achievements, and of the Cuban Revolution in general. To address this question, more comprehensive reflections are necessary. The Urban Reform Law aimed to eliminate the housing deficit by providing a dignified dwelling to all Cubans. The problems at the time were price speculation, high rental prices, and housing shortage. Part of the solution, therefore, was suppressing rental and real estate activities as well as providing a decent and affordable dwelling to each Cuban family. Compared to most other Latin American countries, this was largely achieved. In 2011, an evident aspect of the housing problem concerned the dysfunctional distribution of the housing stock – resuming the initial achievements in the construction of new buildings – and of (more punctual) renewal or restoration of the existing stock and urban heritage. The DL 288 addresses the accumulated maintenance problems ⁶ in conformity with the revolutionary commitment to provide adequate housing for all citizens. From this perspective, the Cuban Revolution maintains its main original goals and still expresses its popular character.

5 The data presented in this article was collected as part of my ongoing doctoral research at University of Campinas, to be finished in 2021. I have been compiling the information from property adverts published on the Isla Si, Zafiro, Detrás de La Fachada and Por el Techo websites since 2014 to form the database used in this article.

6 The shortage of housing stock and the necessity to repair the existing ones are addressed by decentralising the building responsibility from the state. Currently, Cubans can repair and build their houses using their own effort or by relying on cooperatives or self-employed workers. Nevertheless, the main problem remains the shortage of supplies. Despite the allowance of self-construction, the state still has preference in the acquisition of construction materials; therefore, self-built construction is limited and restricted.



1:200.000

It remains disputable whether the market is the most appropriate tool for distributing houses in a socialist system. The introduction of the market as a distribution instrument is theoretically not contradictory to the socialist system since it does not necessarily infringe upon the social distribution of value. It must be emphasised that the production of houses for sale is not permitted. In fact, the sale of housing originally built by the state as part of its social responsibility is discouraged, and the DL 288 resolves this contradiction by obliging owners to reimburse the state for the remaining part of the subsidies invested if they want to sell their subsidised dwelling for cash on the market. This possibility resolves a practical problem in the exchange of housing on the market, but at the same time housing has nevertheless become a commodity, which is even criticised by the left in advanced capitalist countries in the Global North ('Housing is a need and not a commodity'). Given the traditionally more flexible interpretation of a 'socialist society' in Cuba – including recurrent trial-and-error reforms – one wonders whether and how the Cuban society will deal with the outlined new and emerging social relations in the ongoing process of updating Cuban socialism. For

instance, it is possible to note the existence of social differentiation – which contains new forms of employment and property – as well as some extent of poverty and wealth.

In synthesis, these elements conform to the reality of Cuban socialism, which has moved away from the Soviet model and seeks to fit into the new geopolitical and global context without giving up its revolutionary achievements. In this context, it is possible to glimpse some contradictions (like those presented in this article), as the need for external openness and the development of tourism has led to social heterogeneity that is reflected in urban phenomena. The Cuban experience with the housing market might contain internal contradictions and problems, but it does not oppose the aspirations of the Cuban Revolution. It would not be an overstatement to say that at this early stage of the real estate market development and for the time being, it seems premature to fit the urban Cuban experience into either the capitalist or socialist frameworks. Rather more interesting is to learn from and ponder upon the experience in order to imagine a non-exploitative real estate market.

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