

Architecture and Urbanism in the Global South

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BACKGROUND

As we enter the second decade of the current millennium, we find ourselves in a world where the majority of humanity resides in urban areas. As urbanisation continues, we can pose questions about the future of these urban areas and the decisions that need to be taken to ensure that these centres are sustainable into the future.

There is increased interest in urban areas of the Global South. They could, arguably, be viewed as efficient and sustainable, not entirely by design, but by default, brought about by circumstances unique to them. This state of affairs is fast changing as many urban areas take on the architecture and urban infrastructure that changes the way people live and work, and consequently may impact on their future viability as well as their sustainability.

The state of architecture and urbanism in the Global South presents us with a unique opportunity to evaluate global challenges related to urban sustainability from a new perspective. Are there lessons for architects, landscape architects and urban designers alike, based not on the ensuing debate revolving around the here and now, but rather, the needs of the next generation, and future of architecture and urbanism? Can there be a productive transfer of best practice principles between different cities across the globe? The ever-increasing number of inter-country exchange programmes, studio projects, and design-build projects set in the Global South, from India, to South America and across Africa, suggest that there are lessons that can be taught and learnt. These projects, set to help urban and rural societies with infrastructure and technological transfer, also aid the transfer of knowledge back to the participants, related to sustainable futures at different scales - from individual buildings to the district and urban-scales.

As we think of the nature of urban areas across the globe, how can we ensure they are sustainable into the future? How can the rapid growth of urban areas in the Global South, often erratic and based on unsustainable practices and principles, seek to avoid the inevitable negative consequences of such growth? Further still, what lessons from the Global South would be useful to cities in the Global North?

THE CONFERENCE

The conference aimed to address these aspects of urban development with emphasis on the principles of sustainability as they relate to architecture and urbanism. It provided a forum to examine and discuss architecture and urbanism and to stimulate debate and discourse on the future of the same in the context of sustainability. Papers were double blind refereed as abstracts and full papers.

THE PROCEEDINGS

The papers in these Proceedings are organised under themes of **Sustainability and Urbanism, Design for Sustainability, and Education for Sustainability**. Pages are numbered consecutively beginning with the first paper and continuing in the order of the table of contents. They are digitally published on the Conference Proceedings cd. Files on the cd are labelled by the first authors' name in **bold** font in the table of contents.

Papers in these proceedings should be cited in the following format, or equivalent:

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Contents

Sustainability and Urbanism

pages

Community based upgrading of informal settlements for rental housing: The case of Mathare IVA, Nairobi, Kenya Stephen O. Diang'a	1 - 8
Resettling displaced residents from regularised informal settlements in Dar-es-Salaam, Tanzania: Challenges faced by house owners D.L. Magembe-Mushi and J.M. Lupala	9 - 17
Strategic planning for urban sustainable development: Challenges and opportunities facing selected towns in Western Kenya G.J. Cheserek, P. Syagga and W.H.O. Olima	18 - 27
Approaches to sustainability in the Global North and Global South: Sharing lessons on sustainable water systems Celia Way, Emilia Melville, Joanne Beale and Zareen Sethna	28 - 36
Sanitation – a neglected essential service in the unregulated urban expansion of Ashaiman, Ghana Adrien Mazeau, Rebecca Scott and Benedict Tuffuor	37 - 44
Development of a Green Building Rating System for Nigeria Michael Adegbile	45 - 53
Maximising the benefits of green building while reducing the risk and cost of green building certifications Farizan d'Avezac de Moran	54 - 59
Greening Building Codes in Egypt Karim M. Ayyad and Mostafa Gabr	60 - 69
The use of the clean development mechanism (CDM) tool to improve development in Africa Opaluwa Ejiga and Okedele S. Olaniyi	70 - 76
Uganda's new urban policy: participation, poverty, and sustainability Andrea M. Brown	77 - 82
Heritage and modern regionalism in Khartoum Fathi Bashier	83 - 91
Social influence on architectural styles in Egypt (1952-2012) Karim Ayyad and Mostafa Gabr	92 - 97
Sustainability in traditional African architecture: a springboard for sustainable urban cities Opaluwa Ejiga, Obi Paul and Osasona O. Cordelia	97 - 105
The roots and fruits of gated communities in Lagos, Nigeria: social sustainability or segregation? Adetokunbo Ilesanmi	105 - 112
Landscape planning: A bioregional conservation tool in Lower Ogun River Basin Tunji Adejumo	113 - 120
Experimental prototypes for emerging housing constructions in Addis Ababa, Ethiopia Dirk Donath	121 - 127
Leading with landscape: a regenerative strategy for Johannesburg's inner city Graham A Young	128 - 135
Umujyi: Cities and human settlements in Rwanda Toma Berlanda	136 - 142
Sustainable Urbanism in rural growth regions – A case study in Rwanda Astrid Weisel	143 - 150
"The art of city building" issues and practice in East Africa Clive Richards	151 - 158

Design for Sustainability

	pages
Designing for sustainability in cultural landscapes: The Kaya Kinondo Forest of the Mijikenda Community, Kenya Nthiwa Carolyne Wanza and Mugwima B. Njuguna	159 - 166
Culture and environment as generators of sustainable design: the case of Hoachanas Village, Hardap Region, Namibia Sampson Umenne and Victor Chirwa	167 - 176
Green Globalization as an Approach for Sustainable Development in the Developing World Karim Ayyad and Mostafa Gabr	177 - 181
The role of design in urban transformations: towards a sustainable integration of informal settlements in the urban context. Case-study Toi Market, Nairobi. Georgia Cardosi	182 - 190
The Impact of population growth on the Ecosystems and Biodiversity of Kampala: Lessons for Sustainable Urban Development Aloysius Byaruhanga and Leonard Ssozi	191 - 195
From Africa to Alaska: A case study of culturally-sensitive and environmentally friendly designs in polar-opposite regions of the world. Timothy Reidy	195 - 204

Education for Sustainability

Lost opportunities and emerging possibilities: The place for collaboration in the built environment Alex Ndibwami	205 - 210
Reality Design and Slow Prototyping as Methods in Sustainability Education Susanne Gampfer	211 - 218
As if the future matters: Teaching design for sustainable communities Terry Williamson , David Jones, Susan Shannon and Antony Radford	219 - 223
Nigerian architectural education in a sustainable age Michael Adegbile	224 - 231
Hands, Eyes and Feet: Approaches to an Architectural Education Garret Gantner	232 - 237
Building tomorrow: A sustainable future starts in the classroom Whitley Esteban and Aimee P.C. Buccellato	238 - 243
Impact design: A sustainable design process for primary schools in Africa Michael Garrison	244 - 249
Post-disaster shelter: A studio-based response to emergency shelter in natural disaster zones. Nina Hamilton	250 - 254
Sustainability at a Distance: Design for the Open University of West Africa Joseph Dahmen and Daniel Roehr	255-262

Umujyi: Cities and human settlements in Rwanda

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ABSTRACT: The paper introduces the processes of urban development and transformation, the relationship between city and country. Its goal is to establish a scientifically solid reference framework to understand current building project activities at all territorial scales.

Conference Theme: Sustainability and Urbanism

Keywords: urban planning, settlements pattern, landscape, Rwanda

INTRODUCTION

The fast and growing urbanisation process which is radically transforming the territory and landscape of Rwanda will increase in the next decade. In official documents this transformation is considered a goal to be pursued and encouraged through the reorganization of agricultural activities, the concentration of investments in urban centres, the adoption of measures aimed at moving and grouping population. This direction is apparent in policies and programmatic indications at national level and is further confirmed in documents at the local level, from district plans to master plans.

Besides having many economic, social, environmental implications, the theme raises specific questions to those engaged in the analysis and design of the territory. The debate which has emerged in the Faculty of Architecture and Environmental Design, is reflected both on current research projects and field work being carried out by students and faculty alike.

The thoughts expressed here therefore do not represent conclusions to a research project, but explicit the goals and criteria on which the current programme has been established, with the idea that the definition of scenarios and the working method is the essential prerequisite for scientifically valid results.

When have cities started appearing, how have they grown to assume their present configurations, what forces and decisions are currently at work. To answer these questions, which can be posed for any city anywhere in the world, requires careful and joint consideration of both general phenomena and local specificities.

THE URBAN PHENOMENA IN RWANDA

Like most of the literature on cities in the Great Lakes region and sub-Saharan Africa, the one on Rwanda cities is fragmentary (Coquery-Vidrovitch, 1991 and 2005; Rakodi, 1997). Researchers, historians and geographers in particular (Sirven, 1984), who have investigated modes of settlement provide indications for specific historical moments, but not a general and up-to-date reference framework.

One element on which all agree is the constant prevalence of a scattered and diffused settlement pattern across the whole country. Before the colonial occupation the kingdoms did not hold a permanent seat, but moved "from hill to hill". Also, during Belgian rule, both the government and the Catholic Church remained always hostile to the development of urban centres. The former did not need them, because they considered Rwanda mainly as a collecting basin for work force, to be employed according to demand in their neighbouring colony to the West. The latter considered the absence of settlements' hierarchy a device by which to maintain its missions' dominant role over the countryside.

The preservation of the diffused and scattered pattern of settlements was also the main feature of the policy adopted during the first and second republic, inspired by a general hostility towards urbanization (Ansoms, 2009a; Kayigema, 1996).

A decisive shift in the opposite direction has appeared after 1994. Since then urbanization and growth of cities, particularly of Kigali, has become one of the government's main objective, and the core of economic and social decisions (Republic of Rwanda, 2000).

THE WORDS OF THE CITY

The attention for terminology is a trait largely shared by scholars of urban phenomena. Specifically the debate has been tackled by historians and sociologists (Topalov, 2002 and 2010) whose investigations have proven that

nouns such as city, village and neighbourhood cannot be translated from one language into the other simply by consulting the dictionary, and that, in order to define a settlement it is insufficient to refer to the number of inhabitants or to the specific administrative subdivisions present in a particular country. Every definition must be contextualized in time and place because, not only every word acquires different meanings in different situations, but these meanings change within a same society as a consequence of its transformations. Furthermore, we must be aware that words are not neutral, but reflect the power relationships between population groups, which is even more important when dealing with countries with a colonial past.

UMUJYI is a word of Swahili origin which is usually translated as city. Traditionally, rather than denoting a specific location, the term was employed to highlight the distance and counter position between city and countryside intended as different modes of life and, even today, in the common language, with umuji one usually refers to the city centre, to describe the areas where economic activities are concentrated, in relationship to the entire agglomeration of residents.

The Kinyarwanda words UMUHANA and UMUDUGUDU are both translated as "village" or "neighbourhood". UMUHANA defines a social group more than an agglomeration of buildings, it is an entity of families which share the ownership of the land they work on, whereas UMUDUGUDU is applied mostly to groupings of houses. In recent years Umudugudu (pl. Imidugudu) has also entered official language, as a symbol of the policy put in place to redistribute and concentrate population. Umudugudu is also the base unit (cell) of local administration.

The attention to words is not an academic curiosity. Language is a tool which helps to read and interpret the shape and structure of the territory, to capture the relationship between the ground, the activities, and the human settlements in the physical space. To this end, it is very important to note how in Kinyarwanda many denominations underscore the quality of the ground, its productive capacity. For instance, earth is IGITAKA, but for fertile ground there is a specific word, UBURUMBUKE, which means both fertility and profit. As a counter to this, the denominations introduced by the European occupants, highlight mostly the categories of inhabitants to which the access to a specific portion of territory is reserved for, allowed or denied. "In the act of separation, the vocabulary plays a fundamental role, the designation isolates a group of inhabitants, a space, a distance" (Topalov, 2002).

The Belgians never recognised the existence or need of cities in Rwanda. They went as far as denying city status even to Kigali, within which three types of space were identified: the European Centre (CE), the Indigenous Centre (CI) reserved to non autochthonous Africans, mostly Congolese or Swahili, and the Extracoutoumiere Centre (CEC) for the autochthonous Africans. Even when, in 1956, they eventually granted Kigali Urban Centre (CU) status, the denomination only applied to the small portion occupied by white inhabitants, which had been until that moment been called European Centre.

It does not come as a surprise that the perception of the city was hence determined by the dominance presence of the Europeans, and that for the majority of Rwandans the city was "where the white live" (Sirven, 1984).

Not only it is through the white man that the city is defined, but also the first investigations on the origin, evolution and structure of the settlements are carried out by non-African scholars. The most accurate researches date back to the early '80s when, mostly thanks to field work conducted by few French historians and geographers, Rwanda's territorial system has been studied, sometimes taking into consideration analogies and differences with other countries in the tropics, with the double intent of reconstructing its transformation phases, and to contribute to the definition of reorganizational strategies (Prioul, Sirven, 1981; Sirven, 1984). These investigations were stopped in the ensuing decade, marked by the disasters of civil war and genocide.

Today the African city in general, and the Sub-Saharan African city in particular, has come back to be a topic of interest. Having overcome the contraposition between those who believe that the African city is a produce of colonialism, and those who believe that it predates the existence of the occupants, the opinion is that in any case the majority of the African population had access to the city through colonialism. In other words, city is a colonial construct not because there were no human agglomerations beforehand, but it is only with colonialism that the social relationships, hierarchies and divisions typical of cities come into place (Sirven).

Even with reference to Rwanda, and with the caution of avoiding past mistakes such as going from the position of saying that in Africa there were no cities, to the new mistake of claiming that cities are everywhere (Chretien, 2004), scholars have abandoned any restrictive idea based on ethnocentric criteria (Vansina, 2001; Coquer-Vidrovitch, 2005 and 2006) and assume that, as seat of power, the network of royal hillside where the moving court used to settle can be likened to the concept of city.

At the same time, though, we can observe the loss of meaning of the language which impoverishes the scientific debate. On the one hand the replacement of French with English as academic language effectively allows for the ignorance of previous scholarly work, and on the other awarding the preparation of the master plans to multinational firms has as consequence the a-critical importation of a language foreign to Rwanda's culture and not always appropriate for its conditions.

THE PLANS FOR KIGALI

In 1907 Kigali was a small fort, a *boma*, with 350 inhabitants. Today its population is over one million. Its growth started after it was proclaimed capital, fifty years ago, and has further increased and intensified after 1994, paired by an even faster paced and intense rhythm of land occupation and consumption (table 1).

Table 1. Growth of Population in Kigali

Year	Population (inhabitants)	Surface (sq. km)	Density (inhabitants/sq. km)
1907	357	.08	4462
1962	6'000	2.5	2400
1970	54'000		
1978	170'000		
1991	235'000	112	2098
1996	358'000	112	3196
2001	605'000	314	1926
2006	1'000'000	730	1370

Source: Kigali City Council

Its designation as capital city also spurred the proposal of a series of plans and projects as a tentative response and ordering measure to the problems created by the population growth.

The first urban document dates from 1964. It limited itself with establishing a perimeter within which to allocate the administrative, industrial and residential zones. This plan was never approved.

Similar fate befell on the ensuing document, the *Schéma directeur d'architecture et d'urbanisme*, SDAU, established in 1981 with the goal of "planning the next twenty years of expansion", but never implemented. Based on a very schematic zoning, the plan confined agricultural activities in the swampy marshlands and in the rural residential areas. It proposed four industrial districts: Kanombe along the East exit from the city for the great modern enterprises, Gikondo/Kicukiro for the middle sized non pollutant business and for commercial activities in need of large warehouses, Nyabugogo for the non pollutant business with high demands for water; Gisozi South and North for small semi artisanal business and general engineering and construction contractors. The hills of Nyarugenge, Kimihurura and Kacyru were bound to accommodate modern tertiary business. It is worth noting that the existence of informal activities was recognised and that specific areas were allocated for these purposes in each residential neighbourhood, including a large surface between Nyarugenge and Nyamirambo.

The implementation of the plan was hindered by the lack of financial resources to pay the necessary relocations to build the many foreseen roads, although the whole design was brought forward, albeit with slight modifications, in 1988. Faced with the same difficulties it was then definitely abandoned.

Like many master plans of the same period, inspired by an idea of urban planning as a combination of prescriptions and rules focused on land use, lacking adequate financial backup and effective ability to control on the part of the authority, the plans for Kigali had almost no ability to determine neither the directions of expansion, nor to influence the settlement choices of inhabitants and economic activities. The city has continued to expand, jumping from one hilltop to another, and the densification of the built fabric and the indiscriminate occupation of the hillsides has grown considerably since the post 1994 mass movements.

From that moment onwards the illegal and precarious neighbourhoods have increased, where inhabitants live in very uncomfortable conditions (Sano, 2007). Their existence is often ignored, thanks to a manipulation of administrative boundaries which excludes them from the city and its services, a phenomena that has been defined as a true war for "services" (Pérouse de Montclos, 2000). But as soon as the plots on which they are settled become appealing, they are noted and forced to relocate, with the result, according to some observers, that "the main objective of the City Council is to carry out urban renewal projects in order to make prime land in the central and peri-central area available for development" (Durand-Lasserve, 2007), particularly after the adoption of an ambitious development strategy (City of Kigali, 2002) and of the Kigali Concept Master Plan (City of Kigali, 2007).

KIGALI – SINGAPORE OF AFRICA

The current Master Plan adopted in 2007, conceives Kigali like any other capital city of a "developing country", whose role it is to be the interface between Rwanda and the rest of the world. The fundamental infrastructure to transform the city in "Africa's major commercial and financial hub" is the airport. Top priority is given to its connection with the centres of the economic and institutional power, and with areas where goods for export are produced. Among the industrial zones, specific attention is given to those which will be granted status as free economic zones, within which, in order to maximize profit for investors, exceptions to rules and laws in place are allowed to the detriment of workers' conditions.

The more important functions are enclosed within the central ring, in a sort of gated precinct, separated from the rest of the urban area. Few in- and outbound thoroughfares punctuate the ring, and near the intersections, "grand" interventions for commercial venues are concentrated. A second and more external ring road is planned to serve the rapid densification of the periphery, particularly towards the North (Ville de Kigali, 2007).

The first Subarea Plans prepared following the indications of the Concept Master Plan target the most promising areas for investors, the central business district, the institutional and government area, the Kininya neighbourhood, where together with the physical requalification, planners foresee the relocation of the present inhabitants.

This approach engenders the risk of fostering an increase in social disparities and segregation. Kigali used to be a mixed city, for income and type of work. Which reflected itself on the coexistence and physical proximity of small informal houses next to others of higher standing.

Dans les zones informelles **ibereshi**, la cabane en *poto-poto* (banco) ou l'abri de fortune appelé "blindé" (parce que recouvert de bâches) côtoyaient la maison en dur avec électricité et eau courante (Pérouse de Montclos, 2000).

Today this type of *mixité* is set to disappear.

The condensed reading of Kigali's transformations along the documents which have, and still do, attempt at foreseeing and plan its development, confirms that the events linked to the capital city of a country which is becoming macro-cephalous, and where the territorial imbalance is explicitly pursued, are at the same time the result and an indication of global phenomena and local circumstances.

Furthermore, it highlights the need to consider Kigali's evolution in close connection to all that of the Rwandese countryside. Not only because of the migration of population, but also because the establishment of a "competitive city in the global market" which is conceived today requires massive investments and a gigantic drainage of resources from the rest of the country.

THE SECONDARY URBAN CENTRES

Questioning the role of the other inhabited centres both in relationship with the capital city and as structuring elements of the territorial framework of Rwanda, is an exercise which must be accomplished together with the analysis of Kigali's expansion. The two issues are complementary and cannot be understood when tackled separately.

The secondary cities and the rural centres remained very small until recent years. The dimension of the prefecture centres at the time of independence varied from Gitarama's 2000 inhabitants to Kibungo's 500. Though, with the exclusion of Butare, which was founded by the Belgians under the name of Astrida, all existed as embryonic agglomerations before the arrival of the European colonialists.

Within their limited dimensions, and based on a main street of single story buildings, along which the administrative, commercial and service activities lined up, all had some economic function, as seats of factories or public institutions (Rivkin, 1983).

The plans prepared at the beginning of the '80s aimed at improving their attractiveness to slow down migration towards Kigali (Republique du Rwanda, 1982). The proclaimed intention was to rationalise and not destroy a polycentric territorial situation, taking advantage of the good communication network which designs a very thick grid on the landscape. In a 1984 survey, a French geographer counted around one hundred centres, subdivided in three categories, according to their placement inside a mission's lands, on the outskirts of a chef lieu, around a market (Sirven, 1984).

According to many observers, the restructuring of the territory through the consolidation of a number of these centres, and the creation of a series development poles, a "missing link",

un maillon manquant dans l'aménagement du territoire au Rwanda et pourtant une condition essentielle au désenclavement et au développement équilibré des zones rurales (Kayigema, 1996)

which would have helped agriculture, social justice and the preservation of the environment.

Today, besides evoking Kigali's image as the Singapore of Africa, official papers indicate that all cities must become "big", because this will be their only chance at becoming the engine of the development for their districts (Karongi District 2007, District de Bugesera 2008), thus bringing their contribution to the sought for process of redistribution and concentration of the population.

THE RELATIONSHIP BETWEEN CITY AND COUNTRYSIDE

Like the plans for Kigali, the decision and plans drafted for other cities and minor centres cannot be examined on their own, but must be placed within an overall design. Which brings us back to a central theme of the scientific debate on the configuration of the territory, or in other words the relationship between city and countryside. Only

in this way the marks on the landscape lose any casual nature, and it becomes possible to understand how the intricate relationship between human settlements, economical activities and organization of society has given shape to the Rwandese landscape.

The physical configuration of the repeated attempts at replacing the traditional house model, one extreme of which is represented by a single hut in the middle of a field, reflects the ideologies and prevailing interests in the different historical moments. The arrangement of these settlements must be considered in close correlation with the types of crops, working methods, social structure, that is the modes in which the initial phase of capitalism allowed for the primary accumulation was produced and stored.

The keyword in understanding this is UMUSOZI or hill. This does not refer to the hill as mere topographic unit, but denotes it as primary economic and social unity for the entire territory. The modes of use of land and the occupation of the space of the hill reflect the structure of society. Traditionally the hilltop was reserved for the dwelling of the head of the clan, which allocated to the members of its group the cultivable plots along its slopes, called ISAMBU, which means both field and property

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The first attempts at concentrating inhabitants date from the 1950's. With the building of the *paysannats*, linear settlements along the roads, it was believed every family could be given 2 hectares, with the provision that at least one third of the production would be "released" and destined to exportation. Even the experiment of the so called pilot-villages, marked plots which envisioned a communal area reserved for few basic infrastructures and an area for crop and livestock, was basically aimed at increasing productivity and social control.

These initiatives persisted in the period immediately after independence, which was marked by policies which favoured the preservation of a rural economy, but were soon abandoned. Even the idea of reconfiguring agricultural land with the scope of reducing the dispersion of the small service centres rather than that of single dwellings did not materialise.

After 1994, the issue has reached dramatic dimensions and connotations. The concern with the rationalisation of settlement models has been replaced by the priority urge to provide refugees returning from neighbouring countries and internally displaced persons with an accommodation. The so called "villagization" has thus become the core of the territorial strategy of the entire country.

The literature on villagization is burgeoning and articulate (Hillhorst and van Leeuwen, 1999 et 2000). Among others, issues taken into examination range from a comparison with experiences in other African countries (van Leeuwen 2001), the role of international organizations (Uvin, 1998), the overlap with the question of land ownership and rights to use land (Tackeuchi and Marara, 2000 et 2009, Wyss, 2006), the conditions of the inhabitants which live off the soil's produce and from this reach their subsistence (Palmer 1999). Some investigations focus on specific case studies (Havugimana 2001 et 2009).

What seems still unexplored is the overall impact of villagization on urbanization and the parallel progressive privatization of land on the (re)design of the entire country. What is happening today is an enormous enclosure of the commons. Vast portions of the Rwandese territory are enclosed and subtracted from the communities (Ansoms, 2009b). Enclosure of commons is an event repeating itself in phases of economic restructuring. Put forward as an unavoidable necessity to improve productivity, what happens in reality is that current agricultural transformation policies tend to enhance the opportunities of high-potential larger farmers at the expense of smaller-scale peasants (Palmer, 1999), and accrue the disparity between conditions of life and opportunity between city and countryside.

Besides a systemic survey and critical reading of the existing literature and documentation, the core of the ongoing research on human settlements in Rwanda consists in the mapping of portions of the urban and rural landscape, the latter being conceived as the form that man in the course and for the ends of his productive agricultural activities, consciously and systematically imposes on the natural landscape (Sereni, 1961). Similar to Sereni's case, the scope of the work lies not only in documenting an historical cultural heritage which is at risk, but the elaboration of more balanced land consumption strategies. For each example, from the coffee plantation to the small cultivated yard in the periurban slum settlements, the intention is to describe its physical forms and its economic and social implications.

The investigation, acting at different territorial scales, helps to understand how Government and International led programs operating with the goal of modernizing economy and society are producing radical modifications to both the urban and rural landscape. The replacement of the customary right to grow a small field with the private property over land, the expulsion from rural areas of great numbers of inhabitants, the will to transform agriculture from primary source of subsistence to an activity finalised in producing goods for export, are expressed through a generalised process of enclosure of common grounds, finally affecting the only real resource of the country.

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