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MILU EN AMÉRICA LATINA: ¿HACIA UN PAISAJE URBANO SOSTENIBLE?

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Introduction

The paper focuses on MILU issues, opportunities and barriers, as experienced in the Latin America. The cases of study selected and presented try to illustrate how the concept of MILU is incorporated into plans, projects and policies by practitioners, public and private institutions. Explaining which dimensions and values are taken into account in LA and the Caribbean can help to create MILU, and how MILU processes can be organized. As *"the purpose of MILU is to support the combining of land uses in time and space in order to optimise the experienced quality of the built environment within the social ecology of places while minimising their ecological footprints"* (IFHP working party, 2002).

The Latin America region is conformed by 20 nations and comprises Southern and Central America. This territory is linked with other 24 countries that form the sub-region of the Caribbean, whose cultural roots are of different origin. Is also the territory or spatial context of study and investigation of the Economic Commission for Latin America and the Caribbean (ECLAC). The analysis of the cities and urban processes of this extensive and diverse territory from the MILU´s perspective requires the consideration of resemblances and differences in its cultural, physical and urban-environmental characteristics. One of the resemblances is the growing process of territorial dispersion of Latinamerican cities that derives from the uncontrolled urban expansion of the periphery, due to the absence or infringement of geographical and legal restrictions, and the spontaneous urban occupation (*urbanization of poverty*) which in turn, results from rural migration and territorial and political *laissez faire*.

In this context, and following Gausa (in Arraiz, 2001: 129) the Latinamerican city is no longer an island but an *assembly of cities inside the city* (¿city archipelago?) and, as any global

assembly that develops under the direct influence of diverse factors, results in a non planned succession of events that imply new movements. This process of "*metapolization*" for Gausa (2001) is a world phenomenon, a multiespiral of mutations in which empty, large marginal areas are produced that remit to large, spontaneous growths, clandestine settlements connected with dwellings that occupy badly structured spaces that are zones of settlements raised by self construction and that, above all in the third world, arise as a result of large population growth and residential deficits that affect a 1/5 of the population.

Gausa states that the modern metropolis has implosion all idea of limit and introduces what Teyssot calls *desterritorialization*, where the experience of the urban environment can only be perceived fragmentary, through the segmented spaces which unfold the everyday life or its interpretation. When speaking of the new models of settlements, compact and diffuse, Terán (in Arraiz, 2001: 102) with whom we agree, states that the disjunctive is more of cultural models than spatial ones. This reality is not characterized only by the fragmentation in pieces, but also following Terán, by the great heterogeneousness among them, where parts of the compact and diffuse city coexist.

Frame in these considerations the article is structure in five parts. In the first one, the Latin America study region is characterized; in the second part, the Latin American Cities' Urban Models are described; in the third part, the criteria and indicators for Latinamerican countries, cities and cases of study selection are described; in the fourth part, the cases of study are presented and in the fifth part the conclusions and final reflections related with the opportunities and barriers for the application of MILU's strategies in the region, are presented.

1.

Latin America and the Caribbean Human Settlements and Environmental Characteristics

Most of the growth in the world's population over the next 20 years will occur in and around urban centres in low and middle income nations. The nations in question are heavily concentrated in Africa, Asia and Latin America (UN, 2006). These regions already have three quarters of the world's urban population that is most at risk from storms, floods and other climate change related impacts.

According to UN Habitat (2001), Latin America and the Caribbean is the most urbanized region in the developing world. Now, its population is circa 519 millions, with 75% (or 391 millions) of its population living in cities and the rural population reaching no less than 160 millions, it has an urban/rural ratio similar to that of the highly industrialized countries. It is estimated that the percentage of the population located in urban settlements will be stabilized at around 81%, by the year 2020 (ECLAC, 2001).

The proportion of urban population is particularly high in Argentina (89.8%), the Bahamas (88.5%), Uruguay (91.3 %) and Venezuela (86.9 %). Moreover, the urban agglomerations of Buenos Aires, São Paulo, Rio de Janeiro, Mexico City and Lima are already amongst the 30 largest in the world. The urban population in the Latin America and Caribbean region will approach 539 million, or 81 % of its projected total population of 665 million, by 2020.

In the LAC region the variations are considerable at sub-regional, national and local levels, due to differences in the physical, political, social, and economic conditions. At one end of the spectrum are the countries with advanced urbanization. These include Argentina, Chile, Uruguay and Venezuela, whose urban populations in the year 2000 represented 86%, 87%, 90%, and 93% respectively of the total population. At the other are countries with a strong rural presence, like Paraguay or within Central America. Here the urban population represents less than the 60% of the total population. The Andean subregion, in turn, shows indicators of urbanization that are similar to the average for the region. The validity of the aggregation and comparison of regional, sub-regional or national figures turns out, nevertheless, to be questionable, due to the diversity of criteria adopted by the countries in

distinguishing the urban-rural threshold.

Patterns of urbanization in the region, with Brazil being a notable exception, typically involve, however, a single very large city per country. Lima's metropolitan area, for example, has more than 7.4 million inhabitants. In recent years a broadened urban hierarchy has developed in the region with fast growing intermediate cities. This has been influenced by the penetration of the global economy to new levels and the increasingly specialized functions that smaller cities are performing. The region now has 51 cities with more than one million inhabitants.

The growth of these intermediate cities has a dampening effect on the number of megacities. Tibaijuka agrees with this statement when he indicates the importance of developing and/or strengthening the development of intermediate sized and tertiary towns and new rural services. In this regard growth centres would stimulate the development of rural areas, moderate the intensity of rural-urban migration and thereby mitigate the incidence of urban poverty. These secondary cities have not, so far, gained enough political power or improved government services, despite their growth to fulfil this role. They still tend to lack the economic diversity, urban services and the cultural life that the region's primate cities offer.

Despite general economic growth, deep inequalities persist in most countries of the region. Poverty is concentrated in the urban areas with 40% of the population of Mexico City and a third of that in São Paulo being at or below the poverty line. These poor urban dwellers live mostly in substandard housing within informal makeshift settlements and have limited or no access to basic services (UN-HABITAT Istanbul, 2001). In terms of their contribution to economic output, cities, in the main, drive the national economies in both industrialised and developing countries. According to Tibaijuka (UN HABITAT, 2005), the cities of developing countries have increased not only in size but also in economic importance. Many cities in developing countries generate a large share of national income.

- Mexico City, with 14% of Mexico's population accounts for 34% of its GNP.
- Lima has less than the 30% of Peru's population but generates over 40% of the national output.

- São Paulo, with just over 10% of Brazil's total population also generates over 40% of the country's national output.

Five significant problems confront Latin America:

- **Hyper growth:** Urbanization takes place at average rates of between 3% and 4%.
- **Services deficits:** These growth rates, particularly in the poorest countries, are carried out with considerable deficits (between the 50% and the 90% of population) in infrastructure, sanitation and housing, with the imaginable environmental consequences.
- **Management discontinuity:** This is typical of the underdeveloped countries, where each electoral period is followed by changes and greater inefficiencies.
- **Scarce projects and investments:** This factor arises from the previous management discontinuity, as well as from the economy and the political scene.
- **Insecurity and insolidarity:** Based on a political economic model that promotes the closed city with a precarious internal security (in a sea of external insecurity) and the construction of an unsupportive society (Diaz, 2006).

As a general rule the urban growth experienced in Latin America has generated an urbanized region with enormous challenges in terms of social integration and quality of life deficits. Many of the region's urban residents have to deal with: societal shortfalls; insecurity of tenure; inadequate access to affordable transportation; environmental degradation; high levels of violence; and increasing social and spatial segregation. Poverty is often the result of social position, depending on economic class, age, ethnicity or gender. The number of poor people in the region rose from 44 to 220 millions between 1970 and 2000.

2. Latin American Cities' Urban Models: *From the Compact City to the Fragmented City*

Borsdorf (2003), when describing the models of urban structuring in Latin America, divides the region into two cultural subregions: the Latin American; and the Luso American. He identifies four models of urban structuring in Latin America that correspond with four phases: and the contemporary city (2000). This is explained subsequently following Borsdorf (2003).

Colonial Epoch: *the Compact City* (1820)

From 1573 the locating, foundation and planning of cities in the Latin American Spanish colonies was clearly regulated by the "Ordinances of Discovery and Population" or "Law of the Indies." Here the main square, called the parade ground, constituted the centre of each city. This was the key structural focus for the network of urban streets and the nucleus of the city's social life. With this structural form came: a strong centralization; a central to periphery social gradient; and the principle of a socio-spatial structure in circles. These features became the characteristics of the Latin American colonial city.

The Luso American cities served to facilitate the Portuguese maritime traffic towards the Asian colonies and the associated commerce. These cities needed to be fortified and protected against the European forces. Due to this requirement the rectangular plan of the streets was not as schematic as in the Spanish open cities. The colonial cities of the two cultural subregions shared, nevertheless, the central to periphery social gradient with its orientation toward a single central 'plaza'. Development was slow, caused by the rate of natural growth, the economic orientation of the colony based on the exploitation of natural resources and a stable colonial pre-industrial society.

The first phase of rapid urbanization: *The Sectorial City* (1820 - 1920)

In the first decades of the 19th century, the majority of the Spanish colonies obtained their independence. The political and economic changes caused the restructuring of the cities, especially in terms of economic and social structures. In many of the new states European immigrants arrived. Urban development fashions also arrived, including the French boulevard

of the Haussmann epoch called park, walk or field, and the European village. From the economic perspective the principle of "development towards the outside" prevailed. The typical spatial structuring principle of this epoch was the sectorial (divided in sectors) differentiation which was orientated toward linear structures. Until 1920 the domestic economies remained anchored in the exportation of agricultural products and mineral resources. The sectorial development broke the circular structure of the colonial city. In this process the following occurred:

- the linear expansion of the centre was transformed from an administrative centre (in the colonial epoch) to a shopping centre,
- the linear growth of neighbourhoods with modern villages orientated to extensive walks, fields or parks; and
- the railway sector.

The second phase of rapid urbanization: *the Polarized City* (1920 - 1970)

Between 1920 and 1930, the objective of the "development towards the outside" in Latin America began to be displaced by the paradigm model of "development towards the inside." Under this phase an economic policy was developed that aimed to replace imports by means of industries under the control of the State. On the other hand, certain spatial tendencies of the previous periods intensified the industrialization around the railway lines, and the freeways reinforcing the growth of some sectors. In the first decades the low income neighbourhoods and marginal groups were expanded and a short time later the peripheral slums were initiated. These were located in vacant areas inside the urban perimeter on remote plots out of the city. At the same time neighbourhoods of social dwellings were also built in the urban periphery. This phase of urbanization was marked by the rural exodus and the internal migration.

Towards the end of this epoch the first shopping centres appeared on the urban scene. These were like replicas of the American shopping centres and quickly became the focus for the growth of new luxury neighbourhoods. During this period, the contrast between the rich





and the poor city intensified. The polarization resulted in the most important spatial structuring principle, followed by another subordinate principle: 'the cell growth out of the urban perimeter.' This phase of urbanization follows the models of the Latin American city of the 1870's and 1880's. The focus for the urban development and the structuring in the form described were: Industrialization; State power in the economy and in planning; and The rural exodus that produced a fast growth of the urban population through internal migratory flows.

Urban Development from 1970 until today: *the Fragmented City*

The principle of spatial structuring that characterizes the present urban dynamics of the Latin American cities in a very significant way is: the fragmentation; the closed neighbourhoods (gated cities or neighbourhoods); a new form of separation between functions and social/spatial elements. This is no longer, as before, on a large-scale (poor city - rich city, housing zone - industrial park), but now on a small-scale.

Economic elements and housing neighbourhoods are scattered and slotted into small spaces: luxury urbanization is surrounded in some cases by poor neighbourhoods; centres of commerce are scattered all over the city; slums can be found amongst sectors of the higher classes. This development known as "walled cities," is made possible through walls and fences, barriers that separate and assure the occupants against insecurity, the islands of wealth and exclusiveness. It should be mentioned that the phenomenon of the walls is not exclusive to the high class neighbourhoods. The neighbourhoods occupied by average and lower classes are also walled and this phenomenon can again be observed in the marginal neighbourhoods (Table 1).

Table 1: Urban, Political and Social Economic Development in LAC, 1500 – 2006

Phases	1500 - 1820	1820 - 1920	1920 - 1970	1970 till today
Urban Development	Colonial Epoch	First Phase of Urbanization	Second Phase of Urbanization	Restructuring
Urban Model				
Structural Spatial Principle	Gradient centre to periphery	Linearity	Polarization	Fragmentation
Symbol	Plaza	Boulevard (park, walk or field)	High class barrio (district) marginal barrio	Gated barrios, malls, business parks
Growth	Natural	Immigration (European)	Internal migration	Demographic stagnation in the metropolis, growth in intermediate cities by migration
Architectural Styles	Renaissance, Baroque	Classicism, Historicism	Modern	Post modern
Circulation	Blood Traction (horses, wagon)	Railway, tram	Metro, car, suburban collective buses	Urban freeways, car ownership, new digital technologies allow work at home
External Policy	Colony	Hispanic Pan-Americanism National State Continental Pan-Americanism	Autarky, position between the worlds 1,2 or 3	Military Pan-Americanism neo colonialism from United States
Economic Development	Exploitation	Internal agrarian economy Exportation of resources Economy	Development toward inside, Imports substitution industry	Development: Dependency Neoliberalism Economic transformation, globalization.
Socio-political Development	Colonial Society	Conservatism Liberalism	Populism, Socialism	Redemocratization after military governments. Capitalist orientation even in left governments

Source: Borsdorf (2002). Translation, Ferrer, M (2006)

3. Criteria for the Selection of Countries, Cities and Case Studies

To achieve the objective of the paper and select the countries, cities and subsequently the study cases, an assessment was undertaken that considered the following indicators:

1. Level of economic development, line of poverty (a) and extreme poverty (a1).
2. Urban population greater than 75% (b)
3. Number of experiences or good practice diffused, recognized or financed by national

and/or international agencies (c), such as the World Bank (WB), UN-HABITAT, among others (Table 2).

Table 2: Indicators and Latin American Countries selected

Countries State of Urban Transition (1)	Poverty Line (a)	Extreme poverty line (a1)	Urban Population 2005 (b)	Population Growth Rate 2005 (b1)	Best (c) Experience recognized or financed BM (c1)
Chile (AT)	<18.8%	< 4.7%	86.9%	<1.1%	15
Brazil (FT)	37.5 %	13.2%	81.7%	1.4 %	> 77
México (FT)	39.4 %	12.6%	77.2%	1.4 %	42
Argentina (AT)	45.4 %	20.9%	> 90.6%	1.2 %	27
Venezuela AT)	48.6 %	22.2%	88.8%	>1.8 %	< 4
Colombia (FT)	> 51.1 %	> 24.6%	< 76.6 %	1.7 %	41

Source: From ECLAC (2004)

Notes: (1) ECLAC - CELADE (2000) State of Urban Transition: AT = Advance Transition, FT = Full Transition, MT =Moderate Transition and RT = Retarded Transition. (a) and (a1) Economic Development related to line of poverty and extreme poverty (2002), except Brazil 2001 and Chile 2003 (b) and (b1). Urban concentration (c1) Experiences financed by the World Bank (WB) 2000 - 2006; (Source: Dubai International Award for Best Practices).

According to the ECLAC (2004), the six countries selected - Chile, Brazil, Mexico, Argentina, Venezuela and Colombia - had concentrations of more than 75% of their total population in the main cities and registered the biggest percentages of urban population for 2005. This occurred in spite of having diminished the population growth rate measured in five year periods. In all the countries the impact of the policies formulated and implemented by multilateral co-operation institutions and international agencies since the end of the 1980's can be observed, although in different ways.

The selection of the six countries was corroborated by the study of Gutiérrez (2005) who assessed Latin America's economic growth during the period 1960 to 2002. These six countries: Argentina, Brazil, Chile, Colombia, Mexico and Venezuela, are the largest countries of the region and produce about 90% of Latin America's GDP (UNEP, 2004). The selection of the countries and the period of consideration, according to Gutierrez, were based on the

availability and quality of the data. Of these six countries Chile presents greater upward social mobility. This suggests that the modernization of that country, in the course of the last decade, has offered more opportunities to those who are less favoured. According to the report of the World Bank on Latin America (De Ferranti et al, 2000), the high economic volatility of the region implies that the poor are subject to higher risks in comparison with the poor of other regions.

3.1. Case Study: Three Urban Spaces and the Transport Corridors

The contemporary Latin American urban investigation gives considerable importance to the culture and understanding of the crucial role of the images, representations and ideals of the city as it mobilizes collective efforts when seeking to resolve urban problems and reach goals of general interest. Urban planning provides a similar recognition and works from two different standpoints; on one hand, it helps to socially build the city's vision through strategic planning; and on the other, it helps in the planning, budgeting, evaluation and stakeholder control through participatory urban management. The real importance of urban planning in the construction of contemporary cities of LAC has not been established with clarity due to another of the slants of the planning profession that gives much more attention to the elaboration of plans than to its monitoring and management. There seems to be an obsession (and here we have included investigators and planners) with the production of "new, better and more coherent, integral, ethical" ideas for the city and its plans. At the same time they have a prolonged and systematic amnesia or 'loss of memory' of the past and its impacts, achievements and failures which have previously been clearly established.

In this urban scenario how and where can the MILU strategy prosper? What are the opportunities and barriers? We have identified three symbolic urban spaces and the collective urban transport corridors that occupied different spatial and temporal co-ordinates in the Latin American cities, where the MILU strategy was implicitly considered, implemented or has a potential to be inserted (hypothesis of the paper).

These urban spaces are:

- The historic centres, recovered through rehabilitation or renewal policies since the 1980's;
- The urban periphery and poor neighbourhoods which are in the process of urban consolidation or habilitation with varying potentiality;
- The new centralities and urban projects, built following the development of urban tendencies or to comply with the proposed polycentric and more sustainable Latin American city in the Local Plans;
- The new massive and collective urban transport systems and corridors, the great structuring instrument of the cities of the region. They are modifying the urban edges of these stripes or bands of urban mobility which possess great potential for MILU implementation.

What are the barriers?

- The territorial and political *laissez faire*,
- The low density urban culture that characterized the urbanization of poverty,
- The spontaneous urban occupation,
- The absence of a sustainable culture in local government, private investors and the community, although they live in precarious habitats with a lack of investment.

From a theoretical and practical perspective we have no doubts about the advantages of implementing the MILU strategies. To analyse the opportunities and constraints that MILU presents for sustainable development in the LAC region, three urban localities and the new transport systems were identified and studied as having potential for MILU strategies. These were:

I. **Historic Centres or Foundational Nucleus** of the cities regulated by the 'Law of Indies.' This established the principles of social organization and urban development composition in the network of cities that Spain or Portugal founded during the colonial period. These centres and traditional neighbourhoods were characterised by multifunctional spaces (dwellings, commerce, headquarters of government, churches, among others) that gave life to the city. The traditional neighbourhood was an integrated social space which was well defined as a multi purpose, virtual and physical entity with its own identity within the structure of the city. It is now in a phase of adaptation to the new patterns that characterize the dispersed dynamics of the Latin American cities of colonial origin.

The neighbourhoods that are located near to the centre that have become degraded, or that were suburbs in the past, generally suffer from:

- poor levels of accessibility;
- monumentality with historic and architecturally important buildings often in a poor state of repair;
- visibility with an unkempt appearance to the local environment; and
- possessing inappropriate equipment and services that endow them to central functions

II. **The Urban Periphery or Edge City** formed by stripes or urban bands that flanked, somewhat irregularly, the central areas of the cities. Today, these are a range of consolidated and unstable urban settlements which overlap and co-exist without being satisfactorily related to each other or to the city in general. These localities are by-products of the process of urban expansion and sprawl and the urbanization of poverty. They present a 'tapestry' of heterogeneous fragments with different levels of consolidation which reflect the complexity that, in great measure, characterizes today's Latin American urban region. Within these localities it is difficult to define limits due to a growth by aggregation or stealth that has a greater intensity towards the peripheral

zones where: The cost of land is lower; or there is little of interest for the town planning officials; or they have environmental restrictions.

III. **The New Centralities** are created or brought into being as the city grows. They could result from a strategic urban project proposed in the Urban Local Development Plan or from a public-private partnership. The purpose is to overcome the asymmetries in the quality of life. These new centralities might emerge in the existing city or, in some cases, on the edges. They aim to revitalize neighbourhoods and improve the operation of the city as a whole, breaking down the dynamics of concentration and marginalization. In order to secure the conditions to generate new centralities a strong public initiative is required in:

- Accessibility through public transportation and inter-modal transfer centres;
- Real estate development, conservation and public space operations that address monumentality and build up townscape image and credibility to the private agents.
- New regulatory arrangements to facilitate changes of use and intensification of building usage (MILU) in the areas of desirable and potential centrality. The arrangements need to guarantee the insertion of these changes into the existing urban fabric and avoid them becoming treated as "specialized ghettos."

IV. **Collective Transportation Corridors.** These emerge as great structural projects and result from the application of the successful transportation models of "Curitiba", in Bogotá, Quito, Santiago, Guayaquil, and other cities in Latin America.

4. Study cases

4.1. Historic Centres & Water Fronts

4.1.1. Puerto Madero, Buenos Aires (Argentina):

At first the projects focused on the leisure issue, whilst in the latter years it shifted to an emphasis on the construction issue. The Master Plan for the area had the merit of

incorporating the commercial, administrative and leisure uses, together with residential uses, which gave this area its urban unity and MILU characteristics. The Buenos Aires City Council entered into an agreement with the Municipality of Barcelona in 1985. The result of the agreement was the Strategic Plan for the Antoiguo Puerto Madero, produced in 1990 by Associated European Consultants. The Puerto Madero Corporation was established as an autonomous private body that was charged with overseeing and co-ordinating the development of the area and the commercialization of the real estate potential.

During the 1990s local and foreign businesses invested in this large scale programme: Recycling the warehouses into lofts and restaurants; adding new hotels and office buildings that blend into the neighbouring Catalina's Norte business district and the new marina in the northern dock.

The adjacent waterfront band was dedicated to high density residential development: the mixed usage was located adjacent to the docks and the intervening space between both bands was reserved for medium density residences. Dock 1, apart from the general system of bands, was proposed as an exhibition centre. 60 ha of open green area usage were proposed and the creation of a Central Park that linked with the axis of Avenida de Mayo. Parking on two levels was included in all high density blocks.

Country: **Argentina** City: **Buenos Aires** Population: **2,776,130** (INDEC 2001)

Area: **203 km²**

Case project: **Puerto Madero's Master Plan**

Values – considerations	Description-Analysis / Barriers-opportunities
	<p>Madero was a degraded zone which contained a mixture of deposits and a large area of uncultivated land of 170 ha. The land was transferred to the Antiguo Puerto Madero Corporation and local government initiated the recycling plan with the co-operation of the Municipality of Barcelona (Spain). The impact of the “Master Plan” which was the winner of the contest, relates to 2.1 km². It creates a centre of expansion that recovers the interaction between the city and the river, preserves the historic buildings and revitalises the traditional centre, generating a new tourist corridor with its own identity</p>
	<p>The Urban development is compatible with the expansion of the Central Area, with total freedom of choice about land uses. The initial programme consisted of 3,033,505m² distributed into: mixed uses 55%, residence 37.3 %, commerce 3.3 %, and equipment 4.4%. The adjacent waterfront band was dedicated to high density residential development: the mixed usage was located adjacent to the docks and the intervening space between both bands was reserved for medium density residences. Dock 1 is an exhibition centre. Parking on two levels was included in all high density blocks.</p>
	<p>Through the Project routes were opened and squares created. 60 ha of open green area were provided, together with the creation of a Central Park that linked with the axis of Avenida de Mayo. Monuments were repaired and the historical infrastructure was restored. The women’s bridge, designed by architect Calatrava is the newest link between Puerto Madero and the city. It reinforces the connection and is a visual asset to the neighbourhood. A modern lighting system was installed in 2005 and this enhances the appearance of the bridge. Numerous plazas and the new large scale park to commemorate Argentina’s Women began to be constructed in 2005 and are estimated to be inaugurated during 2007.</p>
	<p>The scale of the port and of the river has encouraged the inhabitants to use and visit the link with the coast. Here their new leisure activities can take place along with the discharge of passengers and merchandise from the ships. The Ecological Reserve of the South Flank, built up on reclaimed land over the last 70 years, is the green lung of the neighbourhood and of the city. The reserve is one of the largest public spaces and whilst not strictly a park, the ground is covered by indigenous vegetation. In</p>

the interior of the Reserve numerous recreational activities have been created. The reserve is also a prominent tourism attraction.



Puerto Madero was considered a "strategic project" in the promotion of spatial and economic restructuring processes. This was developed alongside robust policies of image making through the provision of culturally iconic features and new land uses, which would rebuild the relationship between the city and the waterfront. As with other re-vitalised zones this combined private and public investment for the construction of new facilities, public areas by the river and housing units alongside the commercial and financial centres. National and international businesses, together with hotels, have been attracted to the area.



The Ministry of Works and Public Services, the Interior Ministry and the City Council agreed the constitution of the Antiguo Puerto Madero Corporation, signing a covenant to transfer the 170 ha over to their jurisdiction. The Government of the city took charge of the urban regulations and, together with the National Government, participates as a partner in the urbanisation of the area, encouraging private participation linked to commercial actions. This model of management and development has served to improve the value and urban dynamism within the zone. The administration guarantees the success of the process and works to extend the participation of the citizens.

Source: Remesar and Costa, 2004 www.puertomadero.com

The "Puerto Madero" project pursues the concept of recovering the interaction between the city and its riverfront, together with the preservation and conservation of the historic buildings. The old dock buildings were regenerated and converted for business, residential, and commercial uses. This re-generation was associated with the provision of new infrastructure for leisure (restaurants, bars, and other purposes) usage. Due to the success of the recycling process at the port, a group of private businessmen now (August 2005) propose to create "Puerto Madero 2", with a view to urbanising the coastal strip located between the Airport Jorge Newbery, the Centre and Puerto Madero. Numerous associations have requested the Government to organise a public contest in respect to the developing of this area.

4.1.2. Guayaquil (Ecuador): Comprehensive City Renewal and Waterfront

The objective of the urban renewal plan for the city is to improve the standards of living of the inhabitants, especially of the poor. Guayaquil is now, after 6 years of work, a tourist destination. It has become a centre for conventions and exhibitions, a place for business, a strategic connection point with the rest of Latin America and an ideal place to invest with planned tax incentives. To achieve this objective 89% of the municipal budget is invested in projects and services and 11% in expenses and salaries.

According to the Municipality, this integrated and comprehensive city renewal project has created: More public space; Pedestrian areas; The strengthening and integration of the air, urban and passenger transport systems, including the construction of a new terminal; and The Santa Ana Port.

Santa Ana Port cost \$15 million and is mostly financed by the citizens through their 25% income tax payment. The recently inaugurated transport system, called "metrovia", offers a safe and secure service to its passengers and has helped to reduce pollution in the city. The system functions along a special line built by the municipality with articulated modern buses. Private transport companies are the owners who are responsible for the units and the Municipality Metrovia Foundation is in charge of the management of the system.




Poor "barrios" rehabilitation. The Municipality is legalising land ownership as part of the "Popular Housing Plan." Different construction companies are building houses of one or two floors at the lowest market cost, under the supervision of the Municipality. The development named "Mucho lote" is located in a strategic area at a cross roads of avenues. It is equipped with schools, markets, a health centre and social assistance services. It has special regulation that enforces peaceful and healthy interaction between neighbours.

Mega projects: The public works programme of the Municipality is providing permanent facilities to serve all the city's inhabitants. The construction of San Eduardo Tunnel will cross the hill of San Eduardo and serve the poor barrios of the southwest by saving them 1¼ hours travelling time to their places of work. This project, which is part of the Metrovia system, is

being financed by the Corporación Andina de Fomento (CAF) and will save fuel, ease road congestion, reduce car accidents and provide a generally better quality of life for the citizens.

The renewal project has turned Guayaquil into a tourist destination. The city is fast becoming a centre for business connection and this is encouraging local investment. The municipality and the Mayor are promoting conventions and exhibitions to make Guayaquil more competitive. Four hotel chains have applied for permits to build: Marriot, Barceló, Radisson and Swissotel. This, along with the immediate construction of a convention centre explains the new 'position' of the city.

In 2002 the magazine America Economía positioned Guayaquil in the sixth ranking as the "place to do business." In 2006, Guayaquil was chosen as the "best city in which to do business" and "best airport" by the Latin Trade Magazine. The municipality and the national government also promote laws that offer tax advantages for companies that invest in new ventures. This will increase employment, national production and the well being of the citizens (Guayaquil M, 2006).

City: Guayaquil	Population: 2,181,510	Area: 32,440 hectares
Country: Ecuador	Case-Project: Urban Renewal and Waterfront	
Values-issues-considerations	Description-Analysis	
		
Identity: Ceramic murals that adorn façades and the supports of the underpasses give the city a unique image		
		

River Guayas waterfront Malecón 2000 and the MILU border in front of the river



Rehabilitation of the Cerro Santa Ana (poor neighbourhood). The city's foundational place.



Source: Ferrer, M. (2006)

4.2. Urban Periphery

4.2.1. Eixo Tamanduatehy (Brazil): *Re-generation of a Post Industrial Space:*

The project Eixo Tamanduatehy, carried out in the working periphery of São Paulo, is one of the most interesting processes of urban transformation in Latin America at present. Three characteristics make it an exemplary case:

- It is located in one of the more dynamic industrial metropolises of Latin America: the gigantic conglomeration of São Paulo.
- It is not promoted by the central city of the conglomeration, but by the peripheral Municipality ABC. The name refers to three smaller cities bordering São Paulo. These

three cities were [Santo André](#), [São Bernardo do Campo](#), and [São Caetano do Sul](#). Later, the region became known as the **ABCD**, with the addition of the city of [Diadema](#). Today the region is formally known as the **ABCDMRR**, with the addition of [Mauá](#), [Ribeirão Pires](#) and [Rio Grande da Serra](#). It is, though, integrated into the historical ups and downs experienced by the São Paulo people.

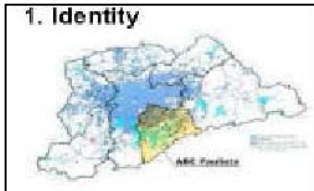
- The proposal is not a "copy" of similar experiences of industrial regeneration in developed countries, in spite of external assessment by noteworthy European town planners. The project incorporates the needs and determining factors of an emerging society, with high levels of poverty and social inequality.

The project is at present in the process of development with a planning perspective that reaches to 2020. It is an example of an interesting project of urban mixture and public space generation as a mechanism of social integration. The participation of the private sector, through investments, constitutes a worth while experiment that secures the attention of town planners as well as politicians and urban managers.

The type of investment programmes, the uses and even the businesses that intervene in the different urban operations of the project, are the same as may be found in any another major Latin American city. They include superstores, business centres and private universities, amongst others. The territorial establishment of these operations, nevertheless, and the conditions of negotiation between the public and private sectors are substantially different to the habitual "landing" of decontextualized mega projects, with their profusion of negative social, environmental and cultural external interest.

Country: **Brazil** Municipality: **ABC** City: **São Paulo** Population: **17,000,000**

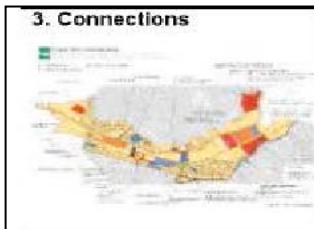
Area: **56 million ha** Case project: **Eixo Tamanduatehy**

Values – considerations**Description-Analysis / Barriers-opportunities**

São Paulo and the ABC Metropolitan Region of Greater São Paulo have 17 million inhabitants and produce 25% of the wealth of Brazil. It is a mega city in transition that has reached a particular moment in its evolution. The project has its own characteristics that give it a strong 'identity' because it incorporates the needs and determining factors of an emerging society, with high levels of poverty and social inequality. The project proposes the creation of a new metropolitan framework of infrastructures, incentives for small enterprises and the development of urbanisation through partnership.



MILU Strategy. The project Eixo Tamanduatehy assumes a mixture of multi-functional uses with the permanence of large industries, housing, commerce, services, leisure and cultural equipment at the metropolitan scale, as a stimulant for local urban development. Different scales of activity co-exist that guarantee the generation of work and income. The proposals address the needs of people with diverse levels of income and include plans for the recovery of poorer areas and incorporate land banks for social interest dwellings (social inclusion).



Eixo Tamanduatehy is conceived as a strategic project, with structuring potential as an articulator and re-activator of the urban axis. The proposals: 1. axes of accessibility and transversality (multifunctional bridge buildings over the Ferrovia railway, the river and highways). 2. Interconnections with strategic points such as the Guarulhos International Airport the Ferrovia (links the port of Santos with São Paulo and the interior of the State), the Avenue of the States (one of the large of São Paulo) and the metropolitan ring road. The progressive transformation of the Ferrovia favoured the establishment of the metropolitan quality train next to an efficient road system, the interconnection with the section east of the Ring Road and with the Guarulhos International Airport (also known as Cumbica). The inter-modal approach.



One of the structural aspects of the proposal is the improvement of the public space with an emphasis on pedestrianisation as a new form of usage that will bring benefits to and benefit from the quality of the urban space. The open public spaces have been provided and laid out in response to a design process which involved the public use of privately owned spaces. Here

improvements are made to the architecture and landscape of the public space as well as the provision of variously designed urban street furniture. During the process of design urban development guidelines for the environment are considered which incorporate green mosaics (progressive constitution of masses and continuous linear green), water (its appreciation as a constituent element of the landscape), visual control of the landscape and monitoring of the environmental quality.



5. Promotion & Marketing □

A regional parliament was created for the Municipality ABC, and the Agency for development that comprises the municipalities and the civil society. The objective is to intervene in the economic processes, negotiate to attract new investment and work with the aim of increasing chains and clusters, including the sectors of the municipality that have previously been left behind or degraded. The project "Cidade Futuro" was established as a process of participatory planning about the future of the municipality with representatives of the community, local government, the institutions and private initiatives.



6. Process architecture

The process followed is a sample of the decision of the State to intervene, utilising new instruments. These are articulated amongst different areas and levels of decision making aimed at implementing a strategy that takes maximum advantage of the scarce levels of public sector investment that is available. The objective has been to stimulate socio-economic processes so as to benefit mainly the poor sectors of the urban peripheries. Resources are distributed socially with eventual returns generated through mechanisms of recovery of the urban capital gains.

Source: http://cafedelasciudades.com.ar/tendencias_16.

4.3. New Centralities and Structural Transport Corridors


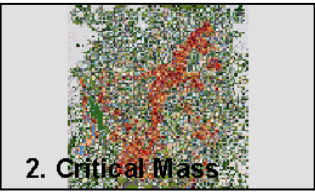


4.3.1. Curitiba (Brazil): *Toward an Eco Technology City:*

The Metropolitan Area of Curitiba, which comprises 25 municipalities, has experienced significant demographic growth, albeit slower now than in the past decades. Currently has an urban macrostructure at its centre made up of Curitiba and the urbanised areas of the neighbouring cities, surrounded by wide rural areas (Dos Santos, 2005).

Country: **Brazil** City: **Curitiba** Population (2005): **1.757.904 hab**

Area:

Case project: **Curitiba's Master Plan, an integrated urban vision**

Values – considerations	Description-Analysis / Barriers-opportunities
	<p>The first systematised effort to define an urban development for Curitiba was the Plan designed in 1942 as the Plan for the Rearrangement, Expansion and Embellishment of Curitiba. In 1965 the new Master Plan was published as an innovative development plan. Among the basic guidelines are: The adoption of a linear growth model; the creation of structural corridors; concern for the urban environment and quality of life by creating a distinctive landscape; valuing of public areas, including the preservation of the urban heritage; and the return of the city to pedestrians by closing parts of its centre to traffic.</p>
	<p>On the basis of these guidelines, it was possible to provide for a mixture of functions (MILU): included housing, shopping, recreation and services along the structural corridors. The new Plan modified radically the concept of the radio-centric system, establishing structural axes at tangents to the traditional centre, in the north-south and east-west directions, avoiding major demolition within the urban fabric. This solution, set alongside the parameters established by the land use legislation, induced growth and increased densities of the city in a linear form along the structural axes. This has contributed towards a reduction of congestion in the city centre.</p>
	<p>The integration of land use and public transportation is a key element in guiding sustainable urban growth. The linear growth of Curitiba, as opposed to the urban sprawl of most Brazilian and Latin American cities, depends upon a creative land use zoning regime and the integration of urban uses and mass transport. An integrated planning structure was conceived as the backbone of the city to encourage urban concentration along the structural corridors. Curitiba chose to enhance the mode of transport that prevails in Brazilian cities, because of the flexibility and relatively low cost of implementation: the bus. The system adopted a social fare in 1980 to mark the consolidation of the Rede Integrada de Transporte (RIT).</p>
	<p>Concern about the environment is a key feature of the Image of Curitiba. The preservation of the green areas meets one of the main objectives of the Master Plan. The creation of parks is aimed not only at environmental preservation, but also, at enhancing the quality of life by providing new services and facilities, and in shaping urban expansion. The creation of linear parks along the</p>

rivers and flood plains is an important element in preventing the spread of settlements into areas that are unacceptable for urban development. They also help to regulate river flow and control erosion. Curitiba possesses over 20 million m² of green areas, distributed in 24 parks and woodlands, in addition to squares and gardens. This equates to 52 m² per Inhabitant which is the highest in any Brazilian city.



Eco-technology. The Curitiba Ecological Metropolis is a project that proposes to create the appropriate environment for high technology development. It has been prepared to receive and provide quick answers to the new challenges of the knowledge based society. The proposal is based on assets that already exist in the city: the university and other related institutions, areas for development, the credibility enjoyed by Curitiba in the media and amongst national and international entrepreneurs. This assumes the consolidation of a technically advanced, socially just and environmentally sustainable innovation scenario that is able to bring the city and the Metropolitan Area into the knowledge based society, as an "Eco-technological" capital.



Curitiba reflects the continuity of the management policies for 30 years which have been directed towards solving the problems under a cause that is shared by the community: the guaranteeing of local investment and extending the sense and practice of the citizenship. New projects have historically been chosen by referendum in order to assure that they meet real needs. Voters are informed of relative costs and then choose between projects. To retain its competitiveness Curitiba needs to consider planning and produce innovative, creative solutions in order to continue to lead the growth process in the future.

Source: Dos Santos, Cleon Ricardo (in ISOCARP Review, 2005: 84-98)

4.3.2. Bogotá (Colombia): *TransMilenio (TM) Project*:

Bogotá covers 1,737 km² and most of its urban area is flat, with some informal development in the hilly areas to the south of the city. The District Development Plan for 1995-1997, "Formar Ciudad" (Educate the City), was concentrated on the cultures of citizenship, public space, environment, social progress, urban productivity and institutional legitimacy. Mayor Mockus defined the culture of citizenship as: "The sum of habits, behaviours, actions and minimum common rules that generate a sense of belonging, facilitate harmony among citizens, and lead to respect for shared property and heritage and the recognition of citizens'

rights and duties.”

Mockus sought to bring about a new urban culture through educational programmes. Whilst the changes in Bogotá are most evident in spatial terms, the transformation has affected every dimension of life in the city. Despite a deep crisis in the construction sector, the following physical aspects of Bogotá have changed substantially: Pedestrian zones; Road infrastructure, especially the implementation of paths reserved exclusively for bicycles – *ciclovías* (cycling street); The revitalization of parks and sidewalks; and The implementation of the TransMilenio bus rapid transit system.

The TransMilenio system, which has improved commuting for 10% of public transport users, involves lanes dedicated exclusively to buses and new buses with permanent, easily recognizable stops. It was created with public revenue under centralized control, with infrastructure construction and contracts placed with private companies. The TransMilenio (TM) bus rapid transit system (BRT) was developed as a privately operated, high quality and dependable service that enhances quality of life, accessibility and travel times at an accessible cost.

The TM BRT is a component of Bogotá’s mobility strategy, and is an integral part of the structural change in the city’s transportation systems. The first years of operation have demonstrated the system’s potential to provide efficient and high quality mass transportation at a very low cost to users and the government. They also show that it is possible to introduce innovative private participation mechanisms, particularly from traditional private providers, in conditions that ensure sustainability and profitability. This was made possible by a strong political commitment, adequate financial support for the development of the infrastructure and hard work from a committed and enthusiastic technical team, as well as a great deal of luck.

The system’s productivity is very high:

- 792,000 passengers each weekday;
- 35,000 passengers per hour in each direction in the most heavily loaded section of

the busways;

- average commercial speed of 26.3 km per hour;
- 5.2 passengers per km;
- 1,596 passengers per bus, per day; and
- 325 km per day, per bus.

Some of the project's achievements are already evident:

- 89% reduction in traffic accident fatalities;
- 40% Carbon Dioxide CO2 emissions reduction;
- 32% decline in travel times;
- 78% acceptance level; and
- an affordable fare (US\$ 0.36) without operational subsidies.

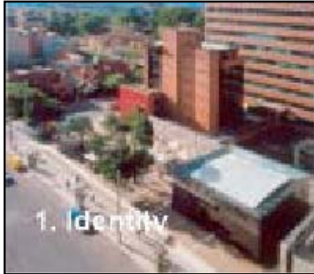
Country: **Colombia**

City: **Bogotá**

Population: **6.7 millions**

Area: **173,000 ha**

Case project: **TransMilenio (TM) - Public Space**

Values – considerations**Description-Analysis / Barriers-opportunities**

Bogotá D.C. is situated in the Cordillera Oriental of the Andes Mountains at an elevation of about 2,650 m. It has a mixture of influences: Spanish, English and Indian; a city of great wealth and material wellbeing alongside abject poverty. The city expanded rapidly after 1940 as large numbers of rural Colombians migrated in search of better economic opportunities. Bogotá is now Colombia's largest financial, educational, commercial, administrative, cultural, and political centre. Its approximately 6.7 million inhabitants includes immigrants from throughout the world, which makes the capital a true microcosm. The metropolitan area has a population of 7.881.200, according to the 2005 census made by The National Administrative Department of Statistics.



Bogotá is a cosmopolitan city which is continually expanding. inhabitants Modern high rise buildings and skyscrapers contrast with the old houses of 'colonial' and 'republican' style architecture. Bogotá offers residents and visitors everything that a modern city can provide, including a vibrant and diverse cultural and intellectual life. It is also a city of 'Dickensian' waifs, beggars, shanty towns and traffic jams. This amazing mixture of prosperity and poverty, makes it one of the world's most fascinating and aggressive metropolitan areas.



The **TransMilenio** is a large scale transportation system that has been planned to respond to the need to put some order into public transportation. Since January 2001, it offers an integral alternative for the urban area. The Articulated Bus is an advanced state-of-the-art traffic management system that provides an alternative to daily traffic congestion. The system started with 92 articulated buses, which are constructed of two red bus structures connected in the middle by a flexible tube. There are exclusive reserved paths for these buses that run throughout the city

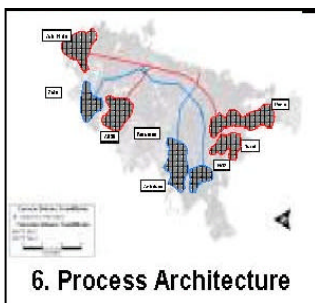


A very commonly held idea about Bogotá, according to Silva (2006), is that it is a chaotic, violent and dangerous place. Many of those interviewed for the project 'Urban Cultures from their social imaginaries' identified the city with the guerrilla, delinquency and drug trafficking. Nowadays, however, it is one of the safest capitals in the whole of the South American continent with one of the highest standards of living. Bogotá's crime rate has fallen dramatically from having a rate of 82 violent deaths per 100,000 habitants to just 15. Public spaces have been re-conditioned (there

are now 7.8 m² of green space for each citizen), and a public transport system has been established which works reasonably well (fast, effective and safe).



The great achievements of the mayors Peñalosa and Mockus were the result of a new kind of government that was centred on issues rather than party politics or ideology. They transformed Bogotá into a model of urban development and transportation. The United Nations have recognized the vast improvements in infrastructure and administration and the reduction in violence. The United States and Swedish international development organizations have respectively given prestigious awards to the public library system and the TransMilenio bus system. Residents have a new sense of ownership, belonging and pride in the city. This is manifested in events such as "ciclovías nocturnas", where many people celebrated in the streets.



An innovation of Mockus' administration was the Observatory of Urban Culture. This organisation was charged with the task of analyzing and evaluating the municipal institutions and programmes through a multi-disciplinary approach. This allowed the administration to make better informed decisions. In order to improve the effectiveness of the Observatory of Urban Culture, its initially ambitious activities were later reduced to short, medium, and long term research projects. These included developing polls and questionnaires to obtain citizen opinions about policies and actions of the administration, creating and managing a database and establishing a centre of documentation. The Mockus administration undertook the important task of cutting the client relationships that existed between the legislative and executive branches in Bogotá.

Source: Hidalgo Guerrero (2005); Montezuma (2006); www.bogotalab.com; www.urbanology.org

Bogotá has also experienced important recent social changes. The coverage of public domestic services (water, electricity, telephone, and gas) has increased and efforts have been made to include the poorest neighbourhoods. The administration of Peñalosa (1998 - 2000) formalized the provision of water, electricity, and paved roads to 316 mostly low income neighbourhoods. In so doing it invested US \$800 million which benefited 650.000 inhabitants. Bogotá's experience can serve as an example for efforts to improve transportation conditions in other cities of the world.

5. Conclusion and Final Reflections

Latin America and the Caribbean is the most urbanized region in the developing world with an urban/rural ratio similar to that of the highly industrialized countries. The proportion of urban population is particularly high in the cities that have been analyzed. Urbanization patterns in the region, with Brazil being a notable exception: typically involve a single, very large city in each country, a primate city. In recent years a more broadly based urban hierarchy has developed in the region which is characterised by fast growing intermediate cities. This is caused by the penetration of the global economy to new levels and the increasingly specialized functions that smaller cities are performing.

Deep inequalities persist, nevertheless, in most countries of the region. For the ECLAC (Kliksberg, 2002) the region is the most unequal on the planet. Poverty is concentrated in urban areas with 40% of the population of Mexico City and a third of São Paulo's population being at or below the poverty line. These poor urban dwellers live mostly in substandard housing within informal or makeshift settlements and possess limited or no access to basic services (Un-Habitat-Istanbul, 2001). Almost 45% of the Latin American population lives in conditions of informality. The weak existing land market regulations explain, in great measure, the impossibility of the popular sectors to have access to formal urbanized land. The following circle: free land market – informality – increase in poverty, is essential to explain the reality of this situation (Llop, 2005).

The asymmetries in the concentration of the population, services and quality of life has surpassed the capacity of the national states and local governments to satisfy the growing demands for: Infrastructure; Adequate public utilities related to road infrastructure, housing, drinking water supply and sanitary sewer system; Educational infrastructure; Health, energy, pleasant public spaces and security. This reality gives rise to numerous challenges which for UnHabitat (2003:7) implies "the development of cities that are environmentally liveable, economically productive and socially inclusive".

MILU as a viable development strategy in Latin American

In this Latin American scenario, what are the opportunities and barriers to implement the MILU strategy? As a result of the documentary revision and analysis of the different study cases recognised we concluded that whilst the MILU strategy is not explicitly mentioned it is implicitly applied in the majority of the cases presented. These cases are of two different scales: The urban scale proposed by a Plan; and The project scale.

We have identified three urban spaces that have occupied different spatial and temporal coordinates in the Latin American cities, where the MILU strategy was implicitly considered, implemented or has the potential to be inserted (hypothesis of the paper). These urban spaces are:

- The historic centres cases of Puerto Madero and Guayaquil;
- The urban periphery and poor neighbourhoods cases of Brazil and Venezuela;
- The new centralities and urban projects cases of Guadalajara, Guayaquil, Brazil and the new collective transport systems and urban corridors cases of Curitiba, Bogotá, Guayaquil and Santiago de Chile.

Analysis of the cases of study concludes with the following opportunities and constraints for the implementation of the MILU strategy:

Table : Synthesis Factors influencing the viability of MILU strategies

Factors	Opportunities	Constraints
Social	Participation of stakeholders in planning and management processes. Development of a new urban culture. Aim to build citizenship, social capital and cohesion. Satisfying common community goals. More equitable distribution of resources, public services and open public space. Improved interactivity and opportunities. Workshops are the media to give citizens an opportunity to express their views.	Citizen Participation: the main instances of discussion, like the participatory budget, do not enable, in some cases, a full conscience in the local community about the importance of the projects. The construction of a culture of citizenship and participation is a long term effort.
Political	Visible management & government policy continuity. Shared vision of the city & urban projects with stakeholders. Political will to overcome urban problems and respond to the needs of the poor. New forms of urban management with participatory planning and budget, democratic transfer of property & income and democratization of the urban fact. Partnership as a tool for empowering stakeholders, share funding of projects and responsibility. New kind of government centred on issues rather than party politics or ideology.	Political laissez faire. Clientelism that allows illegal ways of habitat production based on low density and extensive typologies. This urban pattern generates strong pressures against which there is not the institutional capacity or will to respond due to political or ideological reasons. Limited urban planning and management capacity in public institutions.
Economic	Diversify funding and investment in cities and urban projects, from international sources (World Bank) to national, local and stakeholders' taxes. Building cities competitiveness, through partnerships & creating economic strength from concentrated diversity. Equitable distribution of new development values through better use of the increasing land value. Cost efficiencies from higher density long term flexibility and adaptability	In the present process of local economic transformation, the new undertakings are predominantly in the sector of commerce and services: they do not reproduce the quality of the work and the income of the previous economic base. The necessary investment for the full solution of service deficits does not always contemplate national and regional resources.
Urban Structural	Use of strategic Planning and Projects to achieve city competitiveness and social equity. Shared public resources. More efficient use of infrastructure. Increased intensity of transportation systems, TransMilenio projects. Creative and innovative projects and planning methods, 'open end' and 'bottom up'.	Dispersion & urban sprawl appears as a main constraint for the establishment of the MILU strategy. The horizontal modality of growth of many Latin American cities implies the occupation of extensive surfaces with low density development and increasing costs due to the extension of services and infrastructure. The physical expansion of the cities of the region involves all the socio-economic groups, in differentiated spaces, which in turn creates urban segregation.
Ecological Sustainability	Sustainability as a key principle of the strategic Plan or Project. Revitalization of parks and sidewalks. More rights for pedestrians. Increased m ² of green area per inhabitant. Natural resources rehabilitation.	Poverty, informal urbanization, urban sprawl, high dependence of many economies of the region on the exploitation of natural resources. Limited sustainability culture in public and private institutions.
Source: Ferrer, Castellano and Quintero, 2006 from MILU Strategy (IFHP, 2006)		

Final Reflections: Lessons and Opportunities arising from the Case Studies

Project Eixo Tamanduatehy

The project marks a possible alternative route to the unconstrained deregulation and the market city, for Latin American town planning. As Rolnik maintains:

"In Brazil urban operations have been carried out seeking to involve private investment in the places more valorised to enhance this process further. This has no purpose from a strategic urban development point of view or from a redistributive one. The challenge is to design operations, wherever possible, to direct and manage investment from the rich areas of the city to other, poor areas which need it more; otherwise it is very difficult for a depressed area to receive substantial investment".

The Eixo Tamanduatehy intervention shows the relevance of using the coupled 'urban plan/urban project' as the underlying logic for physical action. This assumes that decisions are made on two levels or scales that are complementary: urban strategy and urban project. There is a permanent search for the correct definition of these terms. This is an instrument of urban strategy which exhibits an open process to possible changes and which is accompanied by urban project synthesizers. In this manner the Plan and the Project are understood like management tools in a model of territory that has a reference value. In terms of urban management, therefore, there is an "open end". That is to say, there is an implication of holism in the instruments of action.

Petare (Caracas), Palo Negro (Maracaibo) and Bella Vista (Cagua)

From the three cases the following guidelines have been identified as being required when developing Urban Design Proposals for the peripheral neighbourhoods of Venezuelan cities:

- The proposal must have the capacity to maintain the key features of the urban scene, since it provides a singularity of appearance that is highly meaningful to the communities.

- The proposals are conceived and developed within the concept of a non-evident border line between being and becoming, such as the case of Petare, where the lack of available land for locating community facilities, produced solutions based upon extensions (where possible) and vertical growth of the existing buildings (intensive land use).
- This strategy of intervention provides a balanced fit between the built environment and proposed actions, avoiding civic monumentality.

Sensibility to context and resident expectations must be considered as fundamental elements for developing the proposals. Workshops are the most appropriate medium to give residents an opportunity to express their views. The design team can use these as a departure point for the urban management and design process. There must be 'identification' with the community of the major project that will be the first construction to be built in a Barrios. The major project in almost every case will be identified as a water supply system, sewers and drainage for the community. This will be instead of the recommendation that is generally included by CONAVI (National Housing Council) of a housing project for relocating dwelling units that are affected by the development of new roads, infrastructure, or health and educational facilities.

General standards are somewhat useless when approaching solutions relating to infrastructure. Each site requires, according to its physical characteristics, a creative and innovative effort in order to develop and design its own regulations and rules. These relate to

- The dimensions of pipelines;
- Allowable speeds for drainage running waters and need for speed reducers;
- Savings in space used for pipelines and drainage that produces an infrastructure box, with a top used as a sidewalk.

Curitiba: From Ecology to Eco Technology

The Curitiba Ecological Metropolis is a project that proposes to create the proper environment in Curitiba and its metropolitan area (the MAC) for high technology development. It is prepared to receive and provide quick answers to the new challenges of the knowledge based society. The proposal is grounded on assets already existing in the city: University and other related institutions; Areas for development; The credibility that Curitiba enjoys in the media and among national and international entrepreneurs. These measures could transform Curitiba into an “Eco-technological” capital, which assumes the consolidation of a technically advanced, socially just and environmentally sustainable innovation scenario which is able to bring the city and the MAC successfully into the Knowledge based Society.

The case studies represent different approaches and types of urban intervention in Latin American cities, whilst sharing goals and sustainable principles. These experiences validate the importance of understanding the plurality and legitimacy of the different ideas of city and urban development that co-exist in this complex region.

To transform the MILU strategy into an explicit urban policy in Latin America it will be necessary to progress through the process of policy formulation: discussion, debate, assimilation, recognition and codification. Nevertheless, once the strategy is adopted the form of policy will have a lasting and very significant impact on the way urban development is carried out. The experiences of successful urban MILU implementation and management could be the source for specific forms of urban policies and the destination of funds for financing them. Its legitimacy, following Cuervo (2005) would depend, in the main, on:

- The democratic character of the processes carried out during its formulation;
- The validity of the scientific and technical support that it possess;
- The mobilization capacity of the will and collective behaviour to achieve the shared vision of the city that is collectively formulated.

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