HAVANA AND ITS LANDSCAPES A CITY INTO THE FUTURE: A SUSTAINABLE APPROACH TO URBAN DESIGN

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In the project's title the word landscape is used to suggest a territory whose ecological characteristics are basic and important in providing sustainability¹ to the city's growth and development. It clearly expresses the ecological connectivity between the natural, the physical, social and cultural aspects that we are dealing with in this project, at the same time that road and street grids, jointly with the greenway networks, tie them all together.

THE PROBLEM

The present situation:

The Colonial buildings in some parts of La Habana Vieja are being restored with the objective to create a series of paths for tourist tours that will bring in much needed dollars into the shrunken economy of the island. The urban areas and the buildings that were developed during the Republic are not being restored and mainly have been left unattended to collapse, even if their quality is in some cases equal or better than the Colonial examples.

Another situation, very damaging to our urban environmental quality has been created: In its need for dollars the regime is placing on the auction block, in a "first come - first served" basis, Cuba's best urban sites including some of its most valuable heritage property. They are being offered to foreign capital in an indiscriminate manner authorizing anybody to freely develop -without intelligent guidance-, mediocre exploitative projects that ignore local traditions and destroy the aesthetic quality typically predominant in the island's existing urban centers.

The future situation:

Cuba's totalitarian political situation will end, hopefully soon, and change will come in time. The Nation will then enter a process towards becoming a democratic system of government, with a free market economy. Human rights will be recognized and the whole atmosphere of the place will then explode in a possibly uncontrolled, intense rhythm of investment, construction and growth.

The construction of dwellings needed to serve Cuba's population growth has already fallen behind close to a million units (in Havana close to 250,000); these units added to those that will be required to serve the demand of Cubans presently living outside the Island, coming to reside or visit, will bring about feverish construction activity. A will to restore, recycle and build new -no matter what or how- will logically happen!

If we are not careful this activity could finally destroy the existing rich urban fabric and the intense social activity and character typical of Cuban cities —of which Havana is the paradigmatic example- introducing the physical and social alienation of suburban sprawl, creating a totally different city model. If this happens, we would have allowed a

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dramatic alteration of the urban environment and certified the death of Havana as a work of art. It will no longer be the expression of our culture and it will loose its authenticity and its attraction.

The following quote from Paul Goldberger –the famous architectural critic of "The New Yorker Magazine", in his lecture titled: "The Future of Cuban Cities" (1998), ends our presentation of the problem: "The great challenge, for Havana as for so many cities around the world, will be to figure out a way to maintain the authenticity that is so essential to the potency of the city (...) the challenge is to find a middle way, to balance new construction along with old, to recognize scale, to celebrate the importance of the street and public places".²

In order to analyze this situation and provide suggestions and guidelines to creatively focus and help solve it, the project "Havana and Its Landscapes" was created.

THE APPROACH TO THE PROBLEM

The project is being developed in **two phases**:

The **first phase** provides a holistic urban vision of Havana resulting from the research and approach to its natural, regional and urban landscapes; to each of the main urban parts (municipalities and *barrios*); and to the interrelationships that structure the city globally. It also deals creatively with the future growth of Havana as a continuous urban pattern, preserving its identity and traditions.

A set of Guidelines and Suggestions will ultimately emerge from the project's ecological, urban planning, urban design and architectural typologies' conclusions. They will deal with the preservation, reconstruction and growth of the city, to creatively protect it as it moves into the future and also to provide the required protection, development and management of the natural regional environment.

All through the development of this phase the material that will configure the book is being selected, organized and filed.

The **second phase** fine tunes the conclusions of the first phase and will deliver the final ecological landscape, urban, and architectural guidelines. The material for the book will be ready in digital form at the conclusion of this phase.

The project focuses on Havana as a paradigmatic model and attacks its problems from two basic approaches (social and physical) that are intertwined and will be developed simultaneously, reinforcing each other:

Approach No.1:

"Man, in a word, has no nature; what he has is... history." José Ortega y Gasset ³

- a) Develop an in-depth research process in order to create the needed educational information, well detailed and documented, so as to properly evaluate the quality of Havana's environmental, urban and architectural legacies in its different historic phases.
- b) The educational information will be multidisciplinary in its research and conclusions. The Project is using the available academic resources of FIU and any outside intellectual resources, to achieve the best possible results.

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c) The objective of this socio-historical approach is to create awareness in the Cuban people -inside and outside Cuba- of the values of the built urban environment and the pride they should feel of its high quality. At the same time those inside Cuba will be able to understand how history has been distorted and how they have been misinformed by the totalitarian regime.

Approach No.2:

"The Grid: Orthogonally is a manner of creating urban order, not a simple formula of urban design. If the urban grid is ubiquitous in the history of cities, it is neither standard nor predictable. The virtue of the grid is, in fact, its unending flexibility."

Spiro Kostof.⁴

The **urban model** used to focus this project is the same model that inspired Philip II to write the Laws of Indies (1573), a document that guided the development of the colonial cities in America.

The **original model** (the orthogonal or reticular grid system) was shaped following the basic urban plans of the Roman *castrum* (military camp). Marco Polo Vitruvius, in his *Ten Books of Architecture* (I Cent. B.C) left good note of the **idea of order** that the design of the *castrums* was based on. Later on Pietro Cataneo (1567), in his *L'Architettura* developed those ideas that had been interpreted in Spain by a Catalonian Franciscan monk named Francesh Eximenic (1340-1409) in his Encyclopedia *El Crestiá* (1381-1386), printed in 1484, where he developed his concept of the "ideal city" in a document titled: "Regiment de la Cosa Pública". This information was delivered to Philip II, with the translation of the very influential book by Sebastiano Serlio done by Francisco de Villapando. The Laws were enacted in 1573.

The Laws of Indies were not put in force until 1640, by then 295 new towns had already been founded by Spain in America, based on the Roman camps design, guided by the Archaic Ordinances of Castile and the Instructions given to Pedro Arias de Ávila (1513) by King Fernando "the Catholic".

Numerous books document this process: Resumen Histórico del Urbanismo en España, Leopoldo Torres Balbás; New Towns: Antiquity to the Present", Erwin T. Galantay; Otra Arquitectura en América Latina, Enrique Browne; Las Leyes de Indias / la retícula hispanoamericana: una forma urbana burocrática, Graziano Gasparini; and Old Havana, Cuba, Nicolás Sapieha.

- a) Havana's built environment and its landscape will be researched and processed to evaluate the status of the urban patrimony and its traditional values. This physical research phase uses historic plans, satellite imagery, aerial photographs and plans as basic information. Photographs of the present site conditions are being taken in Cuba. The project is using topographic and geodesic plans of important areas of Havana at 1:2000 scale. A great amount of plans and other technical written material is stored in the project's archives to complement this information.
- b) The research will create a well documented base from which to focus any studies, in order to make educated decisions concerning demolition, recycling, reconstruction, new construction and the appropriate land use, in the existing context and its periphery, inside the physical boundaries of the city.
- c) Based on the above, a clearly defined urban vision to structure modern Havana is being established. It will constitute the main framework inside which the dif-

ferent city parts will develop, recognizing their traditional values, each with its own character and personality. Its modernity will propel the city into the future.

- d) A set of Urban, Ecological, and Architectural Guidelines and Suggestions will be written to protect and guide the new vision. They will help develop later -once Cuba is free and democratic-, legal Codes and Ordinances for their implementation. These Codes and Ordinances will provide the framework inside which architects, investors and developers, etc. can work. The physical and social impact that the application of these Guidelines can have in the urban environment will be checked during the project's execution, prior to their recommendation, by creating sample digital images and animations to visualize their results.
- e) The results of the work executed for Havana and its region will be useful as a prototypical model- to plan, guide and further legally code other Cuban cities. The recommendations of the project could present alternatives for urban policies, plans and programs to help guide the redevelopment of Cuban cities in general.

THE METHODOLOGY

Work in the first phase focuses on three objectives:

- I- Gathering and classifying information on relevant subjects, preparation of a Database.
- II- Study of the urban growth of Havana.
- III- Study of Havana's landscapes.
- **I. Preparation of Database Work** will be a cooperative effort with FIU's available academic resources. Information obtained will be basic for the development of this and other projects.
- **II. Study of the Urban Growth of Havana.** Analysis of the growth process of the city is based on historical data and on the representation of the results of the urban changes in four maps that are recognized as accurate and technologically advanced for the period in which they were prepared:
- 1. Colonial Period, 1874. Map by Engineer Francisco de Albear, the most complete work done in America up to this time. The map has detailed topographic data and precise information on streets, blocks, public spaces and residential lots. This document shows the growth of Havana from a village to the large capital city of the Colony. Albear's Havana Aqueduct project received a First Prize in the Centennial Exhibition in Philadelphia in 1876, and a Gold Medal in the World Fair in Paris in 1878.
- **2. Havana between the Colony and the Republic, 1894**. Map by Surveyor Esteban T. Pichardo, published 20 years after Albear, has the same quality and added information on the administrative structure of the City. It shows Havana four years before the end of the Spanish colonial rule.
- **3.** Havana after 53 years of Republican Government, 1955. Map by the Instituto Nacional de Cartografía was the first one that was prepared utilizing modern photogrammetry. The map, in six pages, covers a larger geographic area than the previous maps. It includes also most of the Almendares River Basin.
- **4.** Havana after 19 years of the collapse of the Democratic government, 1977. This map was prepared by the Instituto de Geodesia y Cartografía de Cuba and was published in Spain. The map includes the Almendares River Basin.

- **5. Satellite Imagery:** Sites and areas of special urban significance identified in the previous research will be studied in detail to identify primary areas for urban intervention and the characteristics of illustrative design proposals. Existing topographic and geodesic plans at 1:2000 scale will also be used. The proposals will be presented as prototypes for blocks and immediate street patterns, suggesting appropriate urban and building typologies and recommended urban and building guidelines.
- **6. The Master Plans** by ---Cristóbal de Roda (1602); Silvestre Abarca (1757); Antonio María de la Torre (1819); Mariano Carrillo de Albornoz (1830/50); Martínez Inclán (1919 & 1925); Montoulieu (1922), Forestier (1926); Cañas-Abril (1951); José Luis Sert (1958); Mario González (1964); Vittorio Garatti (1971); Gina Rey & Mario González (1984); Aracelis García, Rosa Oliveras (1990)--- were analyzed.
- **7. The Ordinances and Regulations**: The Instructions to Pedro Arias de Ávila by Fernando El Católico (1513); the Archaic Ordinances of Castile (1519-1640); the Laws of Indies, Philip II (1573); the Municipal Ordinances of Alonso de Cáceres (1574); the *Reglamento de Edificaciones* (1845 & 1855); the Ordinances (1861); the modern Ordinances (1963 and 1976); and the *Regulaciones Urbanísticas / Municipio Plaza de la Revolución* (1999) were reviewed.
- **8.** A Historical Analysis of Havana's Architectural Evolution has been executed; indicative of the typologies that structured it and of the essential elements its architecture contains that are timeless and usable today to preserve its regionalist identity.
- III. Regional Study of the Environmental Characteristics of Havana's Landscapes. Different fields of study in the region have been analyzed: geology, soils, vegetation, and others, in an attempt to define the characteristics of the natural, rural, regional, and urban areas, with the objective to recommend general guidelines for the area's immediate reconstruction and development. An environmental protection process will be established by selecting preferred sites for initial interventions, recommending development guidelines. Plans for the location of regional facilities and social services systems will also be prepared.

Work in the second phase, as stated above, fine tunes the first phase's conclusions and delivers the Final Vision and the Ecological Landscape, Urban, and Architectural Guidelines and Suggestions.

THE FINAL PRODUCT

- **1.** Written historic development of the City, fully illustrated: the Introduction to the project
- **2.** Proposed Urban, and Ecological Landscape Design Guidelines; proposed Socio-Political structure of the city; proposed Architectural Typologies for different areas of Havana; recommended areas for immediate, mid and long term future growth.
- **3.** Maps (historic and actual), urban, architectural and ecological landscape plans and information, satellite images, aerial photographs, photos of existing conditions, virtual reality animations, written reports by specialists, etc. will be part of the final product.
- **4.** At the end of the work all the material will be ready in digital form to print and publish a large-format book on the project.

THE FINAL OBJECTIVE

Note: The following thoughts by Paul Goldberger originally inspired the project "Havana and its Landscapes": "In the Havana that we hope will come to pass, there will be plenty of room for new architectures, and it does not have to look like the old – it just has to respect it. There has to be plenty of room for the twenty-first century in Havana – it is just that the twenty-first century has to respect the twentieth, as the twentieth had to respect the nineteenth, which of course it did in Havana, as it didn't do enough elsewhere, as you know. The living city changes, and grows. Only the dead city is frozen. (...) The city is a place of accretion, not replacement. It is where, in Lewis Mumford's incomparable phrase, 'time becomes visible'. The great task for Havana will be to make sure time, which is so very visible now, remains so as the city moves into the next phase of its life (...) and to do so in a way that offers a new model for cities around the world, a model that merges the glory of the past with the energy and promise of the future, and in doing so creates the true authenticity of the present." ⁵

As part of the holistic approach for the project, one of its components concentrates on the region, with the goal of generating rigorously derived sustainable recommendations for a network of parks and open spaces, including greenways and blue-ways that transect/connect natural, rural, and urban areas.

Dean Juan Antonio Bueno, at the presentation of the project August 18th, 2004 stated the following: "Planners should be sensible to the economic, sociological and cultural implications of the population distribution throughout the city. This takes the project beyond just buildings and includes issues such as parks, open spaces and the sustainable development of all these components. The environment in which the city is set is as important as the city itself, be it the basin of the Almendares River, the surrounding rural areas, or the mountains to the south. That is why we bring all these components into the project. By working as a team, we are making sure this is a holistic endeavor that includes everything from building facades, to city planning, to how the city harmonizes with the geography and ecology of that part of Cuba." ⁶

Havana and its Landscapes is being executed under the guidance of:

Architect Nicolás J. Quintana, Director.

Landscape Architect & Engineer Juan Antonio Bueno, Co-Director.

Architect Felipe Préstamo, Research Associate.

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Notes

¹ The term «sustainable development» was defined in 1957 by the World Commission on Environment and Development as: "... a process that guarantees that the needs of the present are served without limiting the ability of future generations to serve their own needs, adding that a sustainable development requires serving the needs of all» Common Future, p.6.

² Goldberger, Paul: thoughts extracted from the lecture: "The Future of Cuban Cities", given at FIU, June 6th, 1998.

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³ Ortega y Gasset, José: *Historia como Sistema*, 1941.

⁴ Kostof, Spiro: *The City Shaped / Urban Patterns and Meanings Through History*, Bullfinch Press, Thames and Hudson Ltd., London, 1999, p. 116.

⁵ Goldberger, Paul: thoughts extracted from the lecture: "The Future of the Cuban cities" given at FIU June 6th, 1998.

⁶ FIU Newsletter: "Havana Glorious Past, Ruinous Present, Boundless Future", August 18th. 2004.