Light and Culture:
A Market Place in the Old City
of San Juan, Puerto Rico

by
Alberto J. Cabré

Bachelor in Environmental Design
University of Puerto Rico
Rio Piedras, PR
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Reader

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Reader

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Assistant Professor for the Department of Architecture and Planning  
Reader
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AUTHOR NAME: Alberto J. Cabré

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- Puerto Rico

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- Culture
- Environment

ELEMENTS:
- Spanish influence
- American influence
- Social behaviors
- Political Status
- Island/water
- Light
- Wind
- Landscape

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THESIS ADVISOR: Ann Pendleton-Jullian
TITLE: Associate Professor of Architecture and Planning
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To my family who has given me the emotional, spiritual and psychological support throughout all my professional education.
Thesis Context

After analyzing issues like Architecture’s Cultural Role, Defining Relation to Place, Commodification, Late Capitalism, Post-Industrial Technology, Edge City and Different Mechanisms of Control, I believe we have to make a differentiation between the Global Contemporary Culture and the Regional Contemporary Culture. What I refer to as Global Contemporary Culture is a world formed by the capitalist system, transnational business, a new form of media interrelationship, computer advances, transportation systems and other social consequences. The Regional Contemporary Culture is the term used to describe the movement that was developed simultaneously with the Global movement. This term means the status of each place according to its social, political, and economical changes that witnessed throughout its history. In other words each place has its own cultural background and different ways to see, confront and react to the surrounding environment and events. To clarify this issue, it is very important to establish that the place- making strategy is a tool that the architect uses to create a dialectical relationship between those concepts. The Global Contemporary Culture and the Regional Contemporary Culture are two concepts that sometimes can be seen completely separate or overlapping. The degree of separation or overlapping between those concepts depends on how the place has been exposed to the international discourse and modernization. I will discuss two countries: France and Spain, in which we can see different dialectical relationships between those concepts.
I will mention these two examples because I believe they approach architecture in very different ways. France throughout its history has been distinguished for being a country of the avant-garde. If we take Paris as the city that has been the home of the French architecture development starting with the Eiffel Tower by Eiffel, Pompidou by Roger & Piano, Park de la Villete by B.Tschumi, Louvre Pyramids by I.M. Pei, the Grande Arche by Otto Spreckelmaier and the Arabian Institute by Jean Nouvel, it becomes clear that the French government has deliberately patronized modern architecture and celebrated technologically progressive buildings as appropriate representations of the French State. This understanding of the international influence has been internalized by the French society as part of its contemporary culture, in other words the two concepts become one when we talk about French Contemporary Culture. This way of thinking makes it possible for a project such as the Euro Lille by Rem Koolhaas to be well received by the French society. Euro Lille is a project designed under the influence of the new Global Contemporary Culture. Rem Koolhaas has incorporated in his project new technology and concepts of movement, place and transcommunication in relation with this new awakening of the globalization movement.

On the contrary, if we observe globalization in Spain, a neighboring country of France, there is a completely different dialectical relationship. Spain has developed its architecture in a very different way to France. Spain had not been exposed to the international discourse as France had been. The political regiments that Spain had (monarchy, dictator) until the late
1970 generated a strong regional culture. Spain began to have more direct contact with the Global Contemporary Culture in the late 70’s and early 80’s. This idiosyncrasy about Regional Contemporary Culture in Spain generated a new group of contemporary architects not only with a strong regional cultural background but also, with exposure to the influence of Globalization.

Before analyzing some of those architects I want to present an example of how a consumerist way of thinking cannot be transported in the same way from one place to another without understanding the regional culture of each place. This example is taken from an observation that I made during consecutive trips to Spain since the mid 70’s until now. In the mid 1980’s the first shopping Mall as we perceive it in the United States was built in Madrid, a suburban shopping mall called “Vaguada 2”. During the first three to four years, this mall was empty and many of the stores went out of business. On the other hand, if we observe the new typology of the urban shopping malls in “Gran Via” and “Goya” avenues they are always full of people and have a rich social life. Being part of the urban environment provides the kind of interaction between the people and the mall that Spanish people are used to. This example proves that the shopping mall as it is perceived in the United States cannot be implanted in Spain in the same way because the Spanish society was not prepare for it. But as we have seen, the urban shopping mall is more successful because it has a stronger relation with the urban Spanish consumerist culture. If I start mentioning contemporary architectural interventions in Spain such as: “Provision Española” in Seville and Roman Art...
Museum by Rafael Moneo, Boarding School in Morella by Carmen Pinos, Olímpic Village Housing in Barcelona by Martínez Lapeña, “Vivienda Novo” in Cadiz by Cruz & Ortiz and the Department of Agriculture in Toledo by De las Casas, although this new contemporary architecture has been influenced by the international contemporary architecture, it also has a strong attachment to the Spanish culture. If we observe the architects that are building in Spain we realize that most of them are Spanish, on the other hand, most of the architects that are building in France are international architects.

Rafael Moneo is one of the architects who represents this new contemporary architecture. Analyzing Moneo’s Oeuvre we can observe that his early architecture had a close relationship with the regional culture. Moneo’s recent works also reflect this, but now with an influence from the global contemporary culture. In his project the Curs Concert Hall in San, Spain, we see how Moneo is dealing with the new international discourse. In his design, the conceptualization of the building as an object or sculpture in space (place-making strategies) and of the materials are some of the characteristics that reflect the influence of the Global Contemporary Culture. The strong attachment that he has with the Regional Culture is reflected in the base of the building which establishes a relationship with the culture that surrounds it.

The understanding of the two concepts discussed above, is one of the most important issues that an architect in this contemporary époque should deal with to create a responsive
architecture. If the architect integrates these concepts, the architecture will continue expressing its larger purpose. The larger purpose of architecture is to reflect in three dimensions a determined period of time and place, the critical, political, religious and cultural thinking. It is important to find a middle point between the Regional and Global Contemporary Cultures in a project because if we choose one extreme or the other it is not possible to create architecture that establishes a strong attachment to the cultural environment. A project that only has a conceptualization of the Global Contemporary Culture will not have roots in the place. This is not the case of France because the historical architectural development of Paris has created the roots from the project to the place although its conceptualization was completely derived from the Global Contemporary Culture. If this project was constructed in Spain, it would not have had the same reception by the people because Spain does not have the same historical background as France. On the contrary, if a project is developed thinking only about the Regional Contemporary Culture, the project probably would seem alien to the entire world. The theory of critical regionalism by Kenneth Frampton established the integration of vernacular elements with the international discourse. The projects that have reflected this theory created a powerful relationship with the contemporary culture. I see the dialectical relationship of these concepts in a project as a new form of place-making strategy that transcends the contextualization of the place and generates a stronger relationship with the place. I am not implying that the project physically cannot contextualize, I am saying that in this
contemporary époque, when architects have opportunities to build in different places in the world, the understanding of the Global and Regional Contemporary Cultures would help create an architecture that responds to the site of the project.
Light and Culture in the architectural discourse

Light and culture had been topics of study throughout history. Light is a topic that has influenced the works of many architects such as Aalto, Kahn, Scarpa, Ando and other regional architects during a certain period but that now has been relegated to a secondary priority. Similarly, the topic of culture had been studied for generations and each place had generated architecture that reflected its culture, but in this contemporary era the culture of the place is not a major issue any longer. Today, architects have been imposing their own styles in the different countries they have built projects. I think that in this contemporary era the relation of light and culture will make the connection between the global and regional cultures respectively.

This hypothesis had been made on the basis that I believe a physical and psychological relationship exists between how each culture understands the universal element of light. The generation of a dialogue between a global and regional topic will emerge from the dialogue between a universal element, the light and a distinguished characteristic or regional element of each place, namely culture.

Architects are building in different countries using the same style, however if that style can be influenced by the understanding of how the culture interprets the light, the building can generate a continuity with light and place, a concept that is now ignored. Light unveils architecture so the understanding of the light and culture of a place will unveil the building in a different form.
The international style was a movement that did not work with those two elements however, if we use the same premises of the movement and add another parameter of understanding the culture and light of each particular place as well, the results of an international style building will be more successful and will generate a dynamic context that follows the progressive society rather than a building frozen in time and history.
Thesis Hypothesis

In the development of our contemporary era the capitalist system has been propagated throughout the world. As a consequence of this propagation, new material technologies, trans-commercial business and new communication methods had been developed. This new flow of information and culture is what we call globalization. The Globalization culture is influencing the development of Contemporary Regional culture in different countries. This influence is based on the importation of architectural models, architectural vocabulary, political modifications, new ways of thinking, etc. that do not belong to that place or culture. Each place or country has its own Regional culture as I explained in the previous sections. It is important to understand the term Time in the context of culture. Throughout history we can find examples in which the style of the building has been influenced by a global movement such as the International and the High Tech Movements. So many buildings constructed in those styles had been frozen in a temporary context. In other words the buildings reflected an earlier time in history, instead of generating a meaning of progression and avant-garde in the present time and space. This is exemplified in the houses of Le Corbusier that reflect the five principles without any relation to the place, freezing them into a period of history. On the other hand, the same architect designed the Carpenter Center which is a building that still feels as avant-
garde as when it was built. It is for this reason that understanding the Global Culture, the Regional Culture and the environment in reference to a culture in progress will generate an architecture that will emerge and develop not as a temporary architecture but as an architecture of cultural progress and avant garde in time and space.

This thesis will attempt to develop a methodology for the integration of the two opposite poles, Regional Architecture and Globalization to build architecture in time, space and culture in progress. To generate this link I re-emphasize the importance of understanding the three aspects: the Global Culture, the Regional Culture and the Regional Environment.

I propose to take the theoretical understanding that I have established in the last pages as a point of departure for this thesis, using Puerto Rico as the study case. Puerto Rico is a country whose culture had been created by the influence of different cultures: native Indian, Spanish, African and North American. As a consequence of multiple cultural influences, a very distinct collective culture has been created. The political status exposes the island to the global culture that develops changes in its social and economic behavior. We as architects and promulgators of social change and history have to work in the architectural development that addresses the understanding or the dialogue between the Global and Regional Cultures. As hypothesis to this thesis, I proposes to use the relationship between light and landscape in the Puerto Rican Culture to generate the dialogue or connection between the Global and the Regional architecture respectively. I use Regional and Global
architecture instead of Regional and Global culture because I believe that architecture is the mirror of society and culture.
The Architectural Project

The vehicle to develop the hypothesis is a Market Place and Tourist Information Center in the Old City of San Juan, Puerto Rico. The project program is developed to satisfy the needs of different sectors of the area, namely residents, tourist and local visitors. The new market will include different kinds of uses to establish a continuous process of activity changes. The program will include an exterior market, artist galleries, permanent stores, cinemas, fitness center, cafes, restaurants and recreation areas. All of the uses are intended to generate exchanges and alternations with the landscape to emphasize its continuity. The light will be studied in relation to the uses to generate the integration of the architecture and study the control or filtration of light in response to the use.

The program deals with the issue of Globalization and Regional Culture because it is reinterpreting the idea of the shopping mall, in a city in whose development stopped 50-40 years ago and the architecture belongs to the 1700's. The impact of the new development on the old city will generate a new social re-evaluation and public gathering in the urban fabric. Questions that would be raised include: how elements of the suburban shopping mall can be reinterpreted in an old city to develop a new vocabulary and social phenomenon; how the idea of a fitness center could generate a new gathering place; how the idea of a temporary market with the permanent market can develop different atmospheres in the area; what is the impact of a cinema in a city that lacks it.

The architectural agenda intends to investigate how the
understanding of light and landscape can be used to integrate new materials and technologies that develop a new reasonable architectural relation to the place and culture.
The Market Place

The Traditional Market Places, Bazaars and Commercial Streets were developed as a consequence of the needs for goodies and necessities for human survival. This traditional type of business developed a sense of community and social interaction in the town centers. The development of the suburbia and the car in the United States generated a new type of building, the Shopping Mall. The Shopping Mall has been generating dead areas, cemeteries of cars and decentralization of social and cultural behaviors. Those are consequences of the building typology. The Building is introverted, enclosed, surrounded by miles of parking and located in isolated areas, etc. The Shopping Mall is supported by the capitalist system and the image of the social classes. This type of business and mentality has developed the shopping mania in the United States’ society.

The Latin-American culture is one of open social communication, extroversion, and strong relationship to the landscape. The strong influence of the United State in many of the Latin-American countries and particularly in Puerto Rico has been disrupting the culture, breaking its integration and losing its particularities. The placement of the Shopping Mall Model in the Latin-American countries has been one of the strongest influences in the corruption of the culture.

As I mentioned before, the vehicle for the development of the thesis is a Market Place, or in modern words, a Shopping Mall. Understanding the typology of the United States
Shopping Mall and all its negative consequences in the Latin-American culture, is important to establish what is the new type of market that I am trying to pursue.

The new market is:

• A place of crossing and connections of activities, people, paths and philosophies.
• A place to buy and to stay.
• A place integrated with in the landscape.
• A place that brings life to the city without breaking the city behaviors.
• A place that starts develop a new type of commercial thinking.
• A place with new type of stores.
• A place that uses light to understand the different activities in the shopping mall.
• A place that generates a relationship between outside and inside.
• A place with traditional and new functions.

Before I started designing the project I did a series of precedents analyses. The precedents range from bazaars, traditional Latin-American markets, commercial streets to shopping malls. The following pages present some of the precedents analyses that support the development of the project.
Market Place, Bucaramanga, Colombia
Herrera, Alvarez and Martinez Architects
Market Place, Bucaramanga, Colombia
Cerda, Jimenez and Tamayo Architects
Market Place, Bucaramanga, Colombia
Anzola, Schrader and CIA, Architects
Deer Path Plaza, Illinois
Nagie, Hartray and Associates
Market Place, Santurce, Puerto Rico
The Site

The site is located at the intersection of the urban fabric, the urban wall and the water in the old city of San Juan, Puerto Rico. It is surrounded by the Spanish fortress of ‘El Morro’, the 18th century School of Fine Art building and the Spanish urban fabric of courtyard houses.

Old San Juan was founded by the Spanish in the late 1600s. For this reason, the architecture and urban fabric of the island reflect the traditional Spanish urban fabric and regional architecture of South Spain. The architectural elements that describe this architecture are the masonry construction, the balcony, the interior patio of the houses and institutional buildings and the color palette. The urban fabric is characterized by the use of an octagonal grid, the sequence of public spaces or piazzas, the scale of the domestic town, the urban wall and the fortresses.

During the early 1900s a new typology of architecture was generated as a consequence of the emigrations to the urban areas by rural citizens who were trying to improve their economic and social conditions. La Perla is the area in which this new architecture was developed. La Perla’s architecture can be described as temporary, light, spontaneous and of typical rural construction in the city. But the important dialectical is that this architecture was developed outside the city wall creating dualities between permanent and temporary and construction in water versus on ground. The urban wall, a site-specific element, plays an important role in the dialogue between the two worlds to which the project has to develop an...
attitude.
The site plays an important role in pedestrian connection. It will be part of the tourist pedestrian walk that starts at the port and ends at the fortress. The project will help generate a new center in the area, not replacing the typical piazza but rather generating a new contemporary center of uses that will emphasize a new community space.
The site is located at the entrance to the cruise ship transit port. The project will generate a new image of the city to the tourist and create the duality between the new and the old, the fortress and the shopping mall.
Understanding the Landscape

To understand the different components of the project such as program, site, cultural issues, technologies, etc. it is important to develop methods to understand the possibilities and problems that each of the components presents. This section will discuss one of the most important components in the development of the project, the Landscape. The site as was explained in the last section present interesting difficulties such as: the slope, the views, the urban connections, the strategic position, the sun, etc.

The first two diagrams that I drew were the movement of people and the dimension of the site in relation to the city. The site is two and a half city blocks. It has two ways of connecting. People come from the port through the city gate to the site or from the castle and “Ballaja” to the site. Those entries suggest a strong diagonal movement or path through the site. The third diagram was to explode the landscape in each component (contours, walls and buildings) to generate the independent relationships to each other. This diagram illustrated that the contours, the walls and the buildings have an intrinsic relationship to each other. The wall and the buildings reinforced the direction of the contours suggesting the direction of movement and direction of the landscape field.

After understanding the direction of the landscape I proposed three possibilities of buildings in that site. The first one is to follow the direction of the landscape field, the second one is to build perpendicular to the direction of the field and the third
one is to build in the direction of the field at the ground level and a perpendicular direction at the aerial level, the resolution of those two direction will generate the slack zone in between them. The third possibility was used to generate the project.

Diagram that shows the juxtaposition of the San Juan urban fabric over the project site
Diagram that shows how to build in the direction of the field at the site
Building the market place perpendicular to the direction of the field
Diagram that shows how to build the project perpendicular to the direction of the field
Diagram that show how to use the direction of the field and the direction perpendicular to the field to generate the market place
The First Idea

The first idea was developed using the method of a two dimensional drawing to generate a three dimensional model. The first path of the project came as the result of drawing 13 vertical sections through the site. An ideal project section was developed on each of the 13 sections. After developing each section separately, I placed them in a consecutive form to understand the three dimensional spaces that the project will generate. The same process was developed with six horizontal sections to understand the functional connection of the building.

The first idea presents a clear understanding of the two system that converge in the project to generate the spatial sequence of the building. The first system is one more ground and landscape oriented and the second one, more aerial and connected to the San Juan urban fabric.
section 5
Visualization

Visualization is a section where I place the story of the development of the project. It included a series of my sketches in a chronological order to understand my methodology in the development of the architectural project. You will see plans, sections, perspective, elevations, details, etc. that will tell you my design strategies. It is a process of analyzing and understanding the architectural work by reading the diagrams. The diagram is a tool that the architect has to express his or her thoughts without writing or talking. Please go through this section, interpreting and analyzing my thoughts in the design process of the market place for San Juan, Puerto Rico.
First diagram of circulation of the project
Section that show the connection between the ground system and the aerial system
Perspective of the entrance at the ground level
Perspective of one of the commercial corridors
Perspective of the main plaza
Elevation of the project from the harbor
Elevation of the west side of the project
Elevation of the central side of the project
Elevation of the east side of the project
Axonometric of the main plaza
Axonometric of the end part of the bars
First sketch of the bars plan
Diagram of the walls system
Diagram showing the main plaza directions
Diagram that shows the different angles of the project
Diagram that shows the juxtaposition of the directions of the project
Diagram of a Building

The project started with the understanding of the different commercial spaces to be included: temporary market, semi-permanent market, permanent market and the private market. All those functions were to be in relationship with the landscape and the culture. To generate that relationship I established two different systems, one related to the ground and the landscape and the second one related to the sky and the urban fabric. The temporary and semi-permanent markets inhabited the ground system and the permanent and private market inhabited the aerial system.

The components of the ground system are a series of retaining walls that establish the relationship with the city wall and the repetition of a pavilion structure that will be transformed depending on the type of market (open or closed pavilion). The components of the aerial system is a system of pillars or concrete columns that supports a metal structure and a system of vertical circulation that establishes the connection with both systems. The bar or the aerial system is attached to the school of Fine Arts and the Government Building to generate a physical connection with the Old San Juan urban Fabric.

The project works at two different scales, The ground system establishes the human scale versus the bar system which establishes the scale of the city wall and the cruise boat at the harbor entrance. The building addresses the tension between the old and the new; it is the new facade of the entry gate of the
cruise boat to the city. The Morro Castle is the old image of the colonial Spanish city and the shopping mall is the new image of the modern and contemporary society.

The building diagram suggests movement and connections of different forms. One movement is the walk close to the wall at the ground market. Then there is a diagonal connection to the Morro Castle by the semi-permanent market; The city street between the two parallel bars ends in an outdoor theater; There is the extension of the Casa Blanca Gardens with the Pink House or the tourist information center (existing building); There is a vehicular connection with the new parking garage and the most important to finish missing part in the tourist walkway connection between the port and the Morro Castle.

The light reinforces the generation of social places in the project. In Puerto Rico the light is captured in the more terrestrial and urban settlement from above (as for example, in the courtyards in the houses in San Juan). In the more aerial or landscape oriented, the light is captured by a lateral filtering. The same strategies are used in the project where a series of vertical shafts, semi-transparent roof and open spaces are placed to capture the sky light and in the aerial bars where a series of screens are place to filter the lateral light.

I think that the project proposed new elements functions and expansions that the city of San Juan, Puerto Rico needs for its future development and sustainability. The following pages present a series of final drawings of the project.
Conclusion

I think it is hard to make a final conclusion in a project that for me just started. I called the last section “final diagram”, because my project is not a building, it is just a diagram that starts to present a form of approaching the relationship between Global and Regional architecture. I spent a long time understanding the issues of culture and the relationship of the project with the landscape, which I consider to be the major components of the thesis. The third component of the thesis has been developed in a very abstract and limited form, but I believe that light will be the connection of all the pieces of the puzzle that are still not part of the final diagram.

Having one term only to develop an M.Arch thesis is not enough time to successfully produce a final result for the theoretical approach of the magnitude that I established at the beginning of the book. I think that the mediation between the Global and the Regional architecture is an issue that needs to be discussed and explored in more detail for the benefit of architecture and the cultures of the world.

View of the Market from the Harbor
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