

CHAPTER VI. CONCLUSIONS AND IMPLICATIONS

In this chapter, the sum of findings, the design implications for public space design in Maracaibo and the final conclusions are provided. The significance of this study has been perhaps, developing design implications, which can contribute to improvement of the social life and vitality of public spaces in Maracaibo, Venezuela. It is hoped that the findings and conclusions of this study could encourage further research and development of design guidelines for improving the human experience of public space design in Maracaibo.

18. Summery of findings

The summery of findings will address the research questions stated in the beginning of this thesis. This section will provide the summery of findings both obtained by the interviews and observation developed in this study. The following has been developed to show the reader in a systematic way, how the research questions were answered, which were the findings for each research variable and provide a general scope of the factors that influence the vitality and quality of live experienced in public spaces in Maracaibo. In this section it will also be indicated points in which observations and interviews results were in agreement and disagree.

Frequency of Use: How frequently are plazas used in Maracaibo?

Plaza de la Madre users frequented the plaza during hours of the day when microclimatic conditions where favorable. Plaza de la Madre was not visited during noon hours due the presence of small trees, a lot of sun incidence and heat. Users at Plaza de la Madre experienced less microclimatic comfort and security in the plaza.

In Plaza de la República, most activities were observed during afternoon and night hours (peak hours). The highest intensity of use was experienced during weekends, but only in afternoon and night hours when most people gathered socially, especially families with children. The highest frequency of use experienced in both plazas occurred during the morning and evening hours when microclimatic conditions were cooler.

Although more people were interviewed during the morning hours, this did not mean that greater number of people visited the plaza at this hour. Hence, the peak hours and greater presence of people was experienced during evening hours.

Uses and activities: What uses and activities occurred in the plazas?

In Plaza de la República, the main activities are special events and a daily TV show due to the presence of an acoustic shell, people exercising, the presence of a bus stop in the plaza, a College Institution (that attracts many young people to the plaza), and the proximity to commercial and food establishments were key elements in attracting people to this plaza. The location of important commercial corridors contributes to the livability, satisfaction and enjoyment of those spaces. The location at important commercial corridors such as 5 de Julio and Dr. Portillo Street and San Martín Avenue, and the proximity to mixed-use buildings attracted a greater number of people to the surrounding area of the plaza.

Plaza de la Madre is located in a mixed-use area of the city where commercial activities and residential uses are predominant. The surrounding land uses do not draw many people to the sector nor to the plaza. Plaza de la Madre is also located at Dr. Portillo Street, which is a very busy commercial corridor with a lot of car parts, hardware stores and other business establishments are located. Dr. Portillo is a car-orientated corridor, climatically uncomfortable and non-pedestrian friendly where definition of sidewalk areas has been lost in order to accommodate vehicles. However, Plaza de la Madre is mainly a residential public space with medium and low-income residents. In general, the location characteristics, the nature of the surrounding uses, the microclimatic conditions and the fear of crime limit the activities developed in Plaza de la Madre. The main activities developed in this plaza were exercising and secondly bringing children to play and socialize.

Although some participants mentioned that the especial events were not drawing them to Plaza de la República, more people were found while in this space when musical events and the TV show developed. In addition, although many people mentioned that looking at others was not important for them in both plazas, most were observed engaged passively with the environment by watching others and the activities occurring inside and outside the public space.

A combination of favorable attributes such as attractive activities, the presence of food vending in the sector (which is a people condenser), children's amenities, opportunity for exercising, are important attributes that public settings (such as those contained in Plaza de la República) should have in Maracaibo. The location of the Plazas is very important for drawing people to it. Plazas that are strategically located, such as Plaza de la República, surrounded by supportive commercial activities, such as the presence of food establishments, are highly attractive for people. Proximity to other mixed-use activities, such as the College institution, was a favorable condition for attracting young people to the plaza. One important finding was that providing amenities for children attracted many families to the plaza and specifically, Plaza de la República.

Accessibility: How are people able to access the plazas?

People access the plazas mainly by foot in Plaza de la Madre and through public transportation in Plaza de la República. The first is because most users live in the surrounding neighborhood. Most Plaza de la República users are students that use that transportation service to access their college and the sector (there is a bus stop where they arrive in the sector). Both plazas have a great need of parking space due to the absence of this amenity; this factor reduces accessibility to the plaza and increases the level of traffic congestion experienced at peak hours in both plazas. It was known that most participants traveled long distances to access Plaza de la República; people in Plaza de la Madre lived very close, and therefore, walk to the plaza. Accessibility was not a major concern or problematic issue in both plazas.

Sociability: Do people socialize in these plazas?

Sociability is present in both plazas but higher levels of people interaction occur in Plaza de la República. One of the findings in this research was that people were attracted to the social environment in Plaza de la República and that the Plaza de la Madre user was attracted more to the opportunity for exercise. It was observed that people in Plaza de la Madre were sometimes not interactive; women tended to be more social than men.

The presence of “triangulation” activities (Whyte, 1980), were key attributes in drawing people to Plaza de la República and increasing people interaction. Plaza de la República represents a good example of a social interactive public space. Although this condition was present, the plaza needs some improvements, such as better physical conditions and maintenance to enhance the social environment and attractiveness. Perhaps one of the biggest problems perceived in Plaza de la República was a conflict between users (parents, children, skaters), which has to do with attitudes of people in part. Putting many people together can create the opportunity for more social tolerance. Due to Venezuela’s social structure and historic background, the presence of public places that could tie people together through triangulation activities (cultural spectacles, children’s car rental) is highly beneficial for creating bonds among the diverse people in Maracaibo. On the other hand it was found that sociability in Plaza de la Madre was limited by the microclimatic conditions and the fear of crime in this public space. Users of this plaza mentioned not willing to stay until late hours of the evening due to security issues and no people were observed in the plaza while temperatures in Maracaibo were high.

It was found that the more inviting attributes, amenities and affordances a public place has, the more opportunities for interaction, enjoyment and comfort. Both interviews and observations confirmed that Plaza de la Republica users are more interactive. Observing the number of people engaged in

groups also reconfirmed this issue. Environments such as Plaza de la República are friendly environment that are able to enhance the sense of community and people connection in Maracaibo.

Preferences and needs: What human needs are most satisfied in existing plazas in Maracaibo? What attracts people to plazas?

In Plaza de la República, people preferred the social environment, natural and organized surveillance, and general comfortable climate conditions in the plaza. Therefore, the most important needs fulfilled in Plaza de la República were affiliation needs, security and physical metabolic needs.

In Plaza de la Madre the need for recreational and sport activities were mainly satisfied. Therefore, the opportunity to exercise and bring children to play was the most important environmental affordance for attracting people to this public space. It was known that the physical improvements developed through the recent renovation processes has benefit the attractiveness and improved the image of Plaza de la Madre. This perception of new physical arrangement in Plaza de la Madre was significant in attracting more people to the plaza and contributed to improve the image of the plaza. The issues that prevented users from enjoying Plaza de la Madre were the uncomfortable microclimatic conditions experienced during high sun incidence hours of the city and security concerns. Specific concerns about security were related to the unsafe image the plaza, due to the proximity of barrios, and by users having heard about previous criminal activities in the plaza. Therefore, in plaza de la Madre, security and physical-metabolic needs are not fulfilled; however, aesthetic and recreational needs are fulfilled in this plaza.

Some requirements mentioned by the interviewed participants in Plaza de la Madre: the need for activities, more physical space, additional parking space, climatic comfort, and security and police surveillance. In Plaza de la República, it participants mentioned: more maintenance, more seating, more control over the conflict between different users of the public space, and more security in the plaza was desired. People's preferred areas in plaza de la Republica were under a tree (comfortable climate conditions) and being in the central space close to the water fountain and obelisk.

Coincidentally, Plaza de la Madre users preferred the central space as the most sheltered space, especially for children to play, and separation from vehicular traffic hazards. Generally, the proximity of the plaza to the street is perceived as highly uncomfortable due to the noise and toxic gases emanated from vehicles. Users perceived the proximity to vehicular traffic as highly noxious for their health. Because of the traffic some prefer to visit the plaza very early in the morning for exercising.

The opportunity to exercise, bring children to play, meet and gather with family and friends, good maintenance, the presence of green spaces and trees were some important preferences expressed by the users of public both space. Interviews showed that Plaza de la República was a more preferred, comfortable and enjoyable public space than Plaza de la Madre. A set of favorable physical, functional, social and economic conditions were the determinant for increased livability and use in Plaza de la República than Plaza de la Madre. Therefore, it is assumed that broader numbers of people's needs are fulfilled in Plaza de la República due to the presence of more affordances that aid social interaction and use. It was found that although some participants disagreed with the presence of skaters and battery operated cars for children in Plaza de la República, the presence of these uses was observed as highly attractive for young users of the plaza and increased the people presence and vitality of the plaza.

Comfort: How do security and climatic factors affect people's comfort in plazas?

Microclimatic Comfort. Climatic issues are perhaps one of the most important issues in drawing people to public spaces in Maracaibo. In Plaza de la Madre the physical conditions, although pleasing to the viewer, were not effective in providing shelter from the intense sun incidence and heat effect. An indicator of this climatical discomfort in Plaza de la Madre was reflected by the absence of people during most hours of the day, and specifically, the absence of people during noon hours. The pattern of use in both plazas was determined by the presence of cool climate conditions during the day, specifically, during very early morning hours and afternoon and night hours when conditions in the outdoor environments were more favorable. The undesirable climatic condition of the plaza, is caused by newly planted trees, which are very young and not very tall and do not provide enough shade and shelter. Climatical conditions were the most important attribute that determined the livability, enjoyment and comfort of this public space. In Plaza de la Republica, although the climatical issues affected the pattern of use of the plaza and reduced the number of people in the plaza during noon, it did not keep people from visiting the plaza at noon hours. Conditions that affected this pattern were the presence more and taller trees that provided enough shade, and therefore, shelter from severe climatic effects.

Although most participants mentioned feeling comfortable in Plaza de la República at noon hours (because they were under a tree), the presence of lesser number of people in the plaza was a sign of lack of comfort confirmed by the observations. Another problematic issue observed but in Plaza de la Madre was the orientation of the plaza according to the sun trajectory. Plaza de la Madre's physical arrangement in the block where the longer portion or dimension of the plaza is orientated east west (which coincides with the sun's daily trajectory) increases the sun incidence and heat gain. Therefore, Plaza de la Madre experiences higher levels of sun exposure during more hours of the day and becomes almost unbearable to visit during noon hours.

Security Comfort. Users perceive Plaza de la Republica as a much more secure place than do users of Plaza de la Madre. In both plazas, participants stated that security, surveillance, and being accompanied by others were very important. The perceived lack of security in Plaza de la Madre negatively influenced the image of security in this public space. This propagates negative images of public spaces, causing some people to avoid visiting the plazas or doing so only under certain conditions. This situation, which is highly uninviting, affects the image and sense of place and belonging and thus affecting the sense of territoriality of the setting.

People who feel or have felt threatened in a certain place retain negative memories and feelings in their minds and avoided further visits. The problem is not having crime in public settings, because it will always exist to a certain degree, the problem is when there is inefficient police surveillance to defend and control the peace and order and public security. Effective police control of criminal behavior and preventing criminal acts is especially important in Plaza de la Madre. In Plaza de la Madre, women feel particularly vulnerable and threatened in the public spaces more so than men do in terms of security. Women in public areas are targets of assault and robbery by antisocial people of the city. Women who feel overwhelmed by the city's crime frequently resort to visiting places accompanied by others, going only during hours that are safe, or remaining in places only briefly. This was reconfirmed by the fact that most women interviewed reported going in groups to the public spaces. If women visited public plazas alone, they remained shorter period of time, especially in Plaza de la Madre. Some women did go accompanied by their children or friends and remained in public areas until dark and until very late.

User profile: Who are the users of the plazas?

In both plazas, most interviewed participants were women. In Plaza de la Madre 60% were women, and Plaza de la Republica had 58%. Women users although many women visited Plaza de la Madre, this was not an indication of comfort and satisfaction. Most women went to the plaza to exercise, Also they visited in groups due to security issues and most women expressed a fear of being in the plaza at night.

In Plaza de la República most users were young people and CUNIBE students; also many parents were observed bringing their children to play, especially during afternoon and night hours (peak hours). Plaza de la Madre had a more diverse group of users. The predominant age group was adult and elderly. Professionals used the plaza mainly to exercise on a daily routine. In both plazas, a minority were undesirables (crazy people or malandros), policemen (in plaza de la República) and maintenance workers.

In general, users considered the social environment and secondly some physical characteristics (image of the plaza) one of the most important factors for attracting people to both plazas. The presence of natural and organized surveillance, being accompanied by others who can provide assistance, and in general, feeling secure, was very important. In both plazas, peak hours occurred during the morning and evening when microclimatic conditions were cooler; an indication of people's preference for cool and comfortable conditions. The opportunity to also exercise attracted people to public spaces, specifically Plaza de la Madre users', who mainly used the plaza for this purpose and, secondarily, for social interaction. The opportunity to bring children to play in plazas was also important. Meeting and gathering with others (friends and family) was more significant in Plaza de la Repùblica than Plaza de la Madre particularly because the sector is more dynamic, more people orientated and more activities in the surrounding which attracted a lot of citizens to the sector. Both plazas experienced recreational and sport use, but the most popular setting for that purpose was Plaza de la Repùblica. The plaza's physical size, the centralized configuration, the presence of a double peripheral walkway which sheltered different pedestrian traffic speed and flow and the presence of sufficient adult trees which provided shade and shelter from sun incidence were successful physical attributes in Plaza de la Repùblica. In spite of these favorable physical conditions, the aesthetic conditions and people's satisfaction with the aesthetic was higher in Plaza de la Madre than Plaza de la Repùblica. Although Plaza de la Repùblica users were not completely satisfied with the maintenance or aesthetical conditions of the plazas, many people were constantly visited the plaza and used it with a constant frequency and intensity. The research findings have also shown that people's preferences are similar to those obtained in prior research related to public plazas and public spaces, as stated in the theoretical background. Some of these findings were particularly similar to Whyte's findings. Some examples were the influence of triangulation activities in the livability and sociability of public plazas. The presence of certain amenities, uses and plaza location characteristics had similarities with some topics presented in the theoretical base. Another example is the presence of food vending as an attraction to sectors of the city.

19. Research recommendations

According to the findings of William Whyte and Fred Kent (president of PPS), the main goal for creating plazas should not only be the provision of open spaces in the urban environment but also the creation of livable, active, comfortable and enjoyable spaces for people that could promote a sense of community and sense of place in the outdoor public spaces. PPS considers creating places for people, not creating designs to be important. Therefore, designers should make comfortable public spaces that reflect people's culture, values and most importantly, their needs. Designers must create a sense of place in public spaces in order to make those settings meaningful landmarks that could encourage public life, people contact and activities and therefore reflect the community's own characteristics.

In Maracaibo, literature regarding climatic design recommendations for architecture and urban spaces already exists. What needs immediate attention, however, is creating awareness in designers and municipal agents of these findings so they can be incorporated into their work. Although climatic design strategies are available to the designers, research still needs to be developed in relationship to social issues and crime prevention strategies in order to be applied in urban and architecture design. The current research intends to provide some design implications for public plazas in Maracaibo in order for designers to properly address the social, functional, climatical and security problems in those spaces and provide an understanding of the importance of applying these design implications. Therefore the design of urban spaces from an aesthetic point of view, which generally is the issue addressed by municipal agents in Maracaibo, will never ensure people's complete satisfaction, enjoyment and comfort in those spaces. The idea is not to provide only for open green spaces that could enhance the visual-aesthetic quality of the city of Maracaibo. Although plazas are renovated and improved aesthetically in Maracaibo, such efforts may not be completely successful if those changes are not based on people's needs, including those of thermal comfort and security.

19.1 Design Implications

The following chart provides design implications and recommendations to the different research variables and urban problems detected in this research. Generally, recommendations given for each variable and detected problem of plazas will address other variables and problems as well. This demonstrates that all factors that influence the livability and social life of plazas are interconnected because those spaces are urban ecosystems. One important issue to mention in relationship to this chart is that same design implication is related to different variables and it will be often seen that implications related or are somehow similar.

Table 5 Design implications for plaza design and redesign in Maracaibo, Venezuela

Research variable	Research findings (Problems detected)	Design implications
Frequency of use	Intensity and frequency of use of public spaces in Maracaibo is affected by images of high crime, presence of uncomfortable climatic conditions at certain hours of the day and lack of a diversity of uses and activities to attract people.	<ul style="list-style-type: none"> • Apply crime prevention strategies to public spaces. Increase police surveillance. • Encourage the presence of more people in the plaza (natural surveillance). • Provide other amenities and programmed activities to the settings that attract people to the plaza. • Provide comfortable conditions for users are provided in plazas including shade through the incorporation of trees and replace hard surfaces with groundcover in order to reduce the effects of solar incidence on plaza surfaces and physical elements during the hottest hours of the day.
Uses and activities	<p>Lack of uses and activities in the plaza and the surrounding sector fails to attract people to these settings.</p> <p>Plazas with no diversity of uses, which do not encourage optional activities to occur, reduce the attractiveness, use and therefore dynamism of the setting.</p>	<ul style="list-style-type: none"> • Incorporate planned events or activities such as street shows or spectacles (triangulation), recreational activities for children and amenities such as public art in plazas to invite use and interaction and ensure natural surveillance in the setting. • Encourage the placement of inviting land-uses and activities in the area surrounding the plaza. • Encourage the presence of food establishments in the surrounding area. Restaurants and fast food could increase the livability of the sector and attract other uses and activities in plazas. • Encourage mixed-use areas that complement residential areas with commercial, recreational, educational, and other activities (as found in Plaza de la República) become livable sectors of the city.
Accessibility	Poor accessibility of plazas for pedestrians reduces variety of users and frequency of use. Therefore, lack of parking, well-conditioned pedestrian walkways and alternative public transportation services reduces people's chances to access plazas and the frequency of use.	<ul style="list-style-type: none"> • Avoid conflicts between pedestrian and vehicular uses and increase safety, including reduction of the noise and pollution effects of traffic that overwhelm pedestrians. • Enhanced pedestrian and bicycle access to plazas by providing parking space, bus stops and alternative public transportation services. • Include attractive activities and amenities in plazas that will attract people from long distances in the city.
Sociability	<p>Conflict among skaters, children playing and people exercising in public space, specifically Plaza de la República, reflects certain levels of social intolerance among diverse social groups.</p> <p>Social life of plazas can be restricted by the users' sense of</p>	<ul style="list-style-type: none"> • Provide better control over people's behavior in public spaces through the presence of more police monitoring of plazas. This could also enhance the sense of safety and improve the image of the plazas as inviting settings. • Incorporate triangulation activities, such as spectacles and programmed social and recreational activities in the plazas; incorporate public art in order to increase social contact, provide channels of communication among strangers and encourage social tolerance among people.

	<p>fear and threat of crime.</p> <p>Poor social life and people interaction among different users of plazas, experienced perhaps due to the lack of “triangulation” (Whyte, 1980) amenities or attractive activities in the public plazas.</p>	<ul style="list-style-type: none"> • Improve the natural surveillance of public spaces increasing the number of uses and activities to favor social interaction.
People's needs	<p>Public spaces in Maracaibo are not satisfying great number of needs in people. These are mostly related to security, climatic comfort and affiliation needs. This translates into unused and abandoned spaces in the city.</p>	<ul style="list-style-type: none"> • Address users' needs through the development of observation, interviews, and site analysis that could guide designer's intentions. • Encourage satisfaction of physical-thermal, security, affiliation and functional needs in public spaces in Maracaibo. This can be accomplished through research of the site and the people in plazas and also based on literature review.
Climatical comfort	<p>Uncomfortable climate conditions in plazas reduce people's frequency of visits and permanence in those spaces.</p> <p>Unfavorable weather conditions during noon hours are the most severe conditions.</p>	<ul style="list-style-type: none"> • Incorporate energy-efficient and bioclimatic design strategies into architecture and urban design, developed by IFA (Architecture Research Institute in Universidad del Zulia). • Incorporate vegetated species that could provide enough shade and relief from the intense heat and sun in public spaces. • Develop analysis of the settings' climatical conditions in relationship to airflow, sun path and its radiation effects, vegetation and topography in order to understand how it affects design. This also could be done through interdisciplinary teams in the initial stages of the deign process.
Security comfort	<p>Criminal activity due to the lack of police surveillance of public spaces.</p> <p>The sense of insecurity of plazas reduces the security comfort and intensity of use. Also, the presence of no activities and people in plazas at noon hours (due to severe climate conditions), increases the risk of crime and fear of crime in public settings.</p>	<ul style="list-style-type: none"> • Incorporate crime prevention design strategies into the design and management of plazas in Maracaibo: incorporation of natural access control strategies in public spaces as well as encouraging natural and organized surveillance. These crime control measures can increase the sense of security of public spaces in Maracaibo. • Improve the level of security in outdoors spaces in Maracaibo with better lighting, constant police monitoring and working emergency police phones. • Encourage the community to participate in and contribute to the required sense of security through the notion of territoriality, which encourage people to protect their territory and promote greater perception of risk by offenders. • Improve the climatical conditions of the plazas in order to ensure constant use during all hours of the day and therefore promote natural surveillance.

Design education	The notion of climatical comfort and security comfort is not addressed intensively in academic design in Maracaibo.	<ul style="list-style-type: none"> • Encourage greater emphasis in design education on more transcendental issues such climate, the users' comfort and the physical conditions that contribute to crime, instead of aesthetic and formal issues. • Encourage site analysis studies and research regarding climatic and security factors in design and promote the incorporation of those findings in students' design processes. • Encourage the research of human needs through the development of interviews, observations and literature reviews of climatical and social issues. • Create places that could teach people how to interact with others and the environment properly; this means creating a favorable behavioral setting for promoting ecological attitudes through the use of public spaces. Public places, for example, can teach people to be more empathetic with the environment and its processes, when surrounded by natural features. • Support academic design work on social, environmental and climatic research findings by incorporating existing architecture and landscape design recommendations that have been extensively developed by many institutions such IFA and ENELVEN – COE.
Urban Design	<p>Aesthetic solutions do not ensure social life and vitality in public spaces.</p> <p>Designers and municipal agents have not adequately addressed people's needs in public spaces which has created uncomfortable environments for people in Maracaibo.</p>	<ul style="list-style-type: none"> • Develop post-occupancy studies and evaluations in outdoor environments (such as plazas) in order to improve the social, functional, security and climatic comfort and quality life of people in Maracaibo. • Create site-specific urban designs, which respond to contextual and cultural conditions and the ecological system of cities. • Incorporate existing urban and landscape design recommendations for hot-humid climates that have been extensively developed by many institutions such Universidad del Zulia, ENELVEN- COE in Maracaibo. • Incorporate the notion of sense of place and territoriality into the design task in order to improve social and security conditions of plazas in Maracaibo. • Encourage a more holistic understanding of the environment in a much more ecological way, being aware of environmental, social, architectural economical, functional and political connections of a place. • Create public spaces, which could enhance people's attitudes towards others and the environment. • Create memorable experiences for people in public spaces. This could enhance a sense of community and ownership of these environments from people. • Encourage community participation in the decision-making process of urban and architectural design.
Public policy making and	Lack of urban legislations and ordinances that could assure	<ul style="list-style-type: none"> • Create urban ordinances that could make plaza design and renovation processes responsive to climatical, security, and

management	consideration of the thermal, security, functional and physical (required amenities) conditions and quality of public spaces in order to ensure comfort and enjoyment.	<p>functional and physical conditions of the settings.</p> <ul style="list-style-type: none"> • Create legislations that could assure the existence and protection of natural environments, public spaces and other important built environments that are considered cultural or social heritage of Maracaibo. • Develop a policy for CPTED strategies to become mandatory strategies in design in order to improve the security conditions in public spaces. • Develop policies that could encourage the location of supportive land uses or mixed-uses around important public spaces in Maracaibo.
People's attitudes in public spaces	Lack of people's sense of belonging and attachment to public spaces in Maracaibo.	<ul style="list-style-type: none"> • Encourage civic education at different levels; awareness campaigns to encourage ecological attitudes toward the environment and public places of Maracaibo, and specifically toward the importance of caring for public settings and the values those spaces have to community. • Promote through campaigns of civic education the importance of creating a sense of belonging and territoriality toward urban environments.

The design implications provided in this chapter are not intended to be rigid or deterministic solutions for the public space design and renovation processes. Instead, they are general design recommendations developed according to the research findings. It is important to note that the environmental conditions of a plaza are site-specific, and therefore design implications should vary and adapt to the particularities of each public space setting. Therefore, these implications require adaptation to the existing plaza's functional, physical, social, security and climatical conditions. These implications are only a starting point, which can be enhanced with further research and design developments. Therefore, they can be considered as experimental strategies. The design implications are not intend to ensure complete livability and use in all plazas in Maracaibo, but rather to improve the conditions of the plazas addressed in this research in order to make them better and more comfortable urban environments in Maracaibo. One of the main goals of this research through the development of these design implications, is to influence designers' work and create an awareness of what can be done to create more comfortable and enjoyable public places for people in Maracaibo.

20. Conclusions

After presenting the summary of the different research findings, having answered the questions of this study, and presented the recommendations and design implications, the final conclusions will demonstrate the validity and importance of this study. The following were important conclusion made through the development of this research:

Designers and municipal authorities, responsible for creating, managing and maintaining environments for people have a duty to understand how environments affect human beings and how their design intentions affect the environment. Designers must incorporate concepts, theories and disciplines, and research findings into their designs, in order to better address human needs and adapt buildings to environment conditions. In general, environments that fully meet human needs and provide climate, security, physical and functional comfort and are highly used and enjoyed by people. Generally these environments are highly attractive to people and provide diverse uses. Redesign and design must be site specific (responsive to existent environmental conditions) and specific to the user's needs. Designs from foreign countries or other designer's generally do not provide solution to other urban contexts and their problems. Aesthetics will not always solve security and climatical problems that affect the livability in public spaces. Contrarily, the study of the specific social, climatical, security conditions of a place will provide incentives for what should be done for increasing levels of comfort, enjoyment and livability of public spaces. Also observing and interviewing, is important strategies to develop an understanding of a place and subsequently to develop design criteria.

Maracaibo's severe environmental conditions have not contributed to create a sense of attachment and belonging to urban spaces and specifically to public plazas in people, nor contributed to people's comfort and security. Actually, in this research, it was discovered that Plaza de la Republic had many favorable attributes and that its potential could be intensified through some slight changes. Plaza de la Madre is a living example that physical arrangements not necessarily make people comfortable or make great public spaces. Although plaza de la Madre is aesthetically pleasing with an increased sense of beauty and arrangement, which has improved the image of the place, it is still perceived as unsafe and climatically uncomfortable for people. The conditions present in Plaza de la Madre are not enhancing thermal comfort, sociability and security. Plaza de la Madre is not contributing to the security and metabolic comfort needs, it is not contributing to affiliation needs, and therefore not contributing to the social life, vitality and enjoyment of such spaces. Other attributes that discouraged complete enjoyment of the setting were functional ones such as the location characteristics, the plaza insertion in the urban structure and the surrounding uses. Therefore, in Maracaibo, the concepts of security and metabolic comfort created by designers are particularly vital for the creation of enjoyable spaces.

Also confirmed in this research is that plazas acquire their social and community roles according to what they offer people (affordances). The more positive attributes a plaza has, the more livable and enjoyable it will be for people. Therefore, the more positive social, physical, functional, social, comfort, security, and accessibility attributes a plaza has, the more it will appeal to people. The more appealing a place will contribute to positive attitudes and behaviors, social tolerance, dialogue, connection, and learning processes. Figure75 presented in the following page summarizes the different attributes that contribute to the social life and vitality of the public spaces studied in this research.

This research has demonstrated that many factors existent in Plazas influence the livability, enjoyment, social interaction and general satisfaction and comfort provided the user. Therefore, it has been proven both theoretically and methodologically that the physical attributes of environments do not determine by themselves the success and enjoyment of public spaces. This research, confirms that a combination of factors such as the comfortable climatical conditions of the plaza, the perceived security which enhances with the presence of natural and organized surveillance; the location characteristics of the public place, and the presence of supportive activities that attract people to the adjacent areas. The location of Plaza de la República in a busy area of the city, which is highly visited by people (because of the retail and food establishments) supports the activities and vitality experienced in this plaza and promotes social interaction. The nature of people contact and the presence of triangulation amenities in the plaza such as programmed events are important factors that influence the livability of the plaza. Although it has been mentioned that aesthetic issues are not the sole determinant in the success of plazas, it certainly enhances the image of security and care for the place. Particularly in Plaza de la Madre the enhancement of the physical condition has draw people to the plaza, for especially recreational and sport activities, it has enhanced the perception of security although the plaza does not have police surveillance, but patterns of use are affected but the climatical conditions, making the plaza unused during hours that climatical conditions are severe for the user to be in. Through this example of Plaza de la Madre it can be understood how all factors are linked together. Therefore what determines a success of a place is not a single factor.

It is also important to note that plazas are representative spaces of users and citizens' life, which are open systems able to change along time. Therefore, places; people's needs and even the problems that public spaces confront evolve through time. A key issue when dealing with social environments is to be aware that patterns of life and needs in the urban environment change and designers must adjust their design to these societal changes in order to create better environments for people.

Places have the ability to teach people, by providing favorable experiences and information. Through the environment we can teach others that social interaction is good, we can teach through control and education, for example, throwing litter in public spaces will affect not only the environment