

Capstone Project Program



Maritza Capiro



TABLE OF CONTENTS

Capstone/Master Project Decision & Literature Review.....	pg 3-8
Typology.....	pg 9-25
Client Owner	pg 26-30
Location and Site.....	pg 31-40
Client User.....	pg 41-52
Project Goals and Objectives.....	pg 53-54
Quantitative Requirements.....	pg 55-66
Mentor Session.....	pg 67-71
Programming Issue and Design Guidelines	
Summary.....	pg 72-75
Appendix.....	pg 76-77



Part One – Senior Project Focus

Project Typology Decision

My senior thesis project will deal with the creation of the interior space at a health club. To that end I have dedicated this past summer doing research and coming up with a case study and literature review that will be instrumental in this pursuit. I have undergone a thorough research process to become familiar with the needs both physical and psychological, that the users of my space will need to have met. I have also established a set of guidelines acquired from the research that I will follow in putting this project together.

Location Decision

I have decided to locate my health club in Brazil. Beauty, health and participation in sports are very much part of the culture. The Brazilian culture is very body conscious, they take their image very seriously and an exercise regimen is very much part of a great many Brazilian's routine. Rio de Janeiro is ground zero for the "fio dental" which translates as "dental floss", we have come to know it as the thong.

Brazil is the largest country in South America and it shares common boundaries with every South American Country except Chile and Ecuador. With a young median age of 28.9 years old and mostly tropical weather except for temperate in the South, Brazilians enjoy being outdoors, being healthy and looking good. The official language of the country is Portuguese.

I think that placing my health club in this country is a natural fit given their affinity for exercise. I will draw inspiration from the beautiful sights in this country. I am interested in researching what their health clubs look like, to see how they compare to ours and what I may be able to learn from theirs.

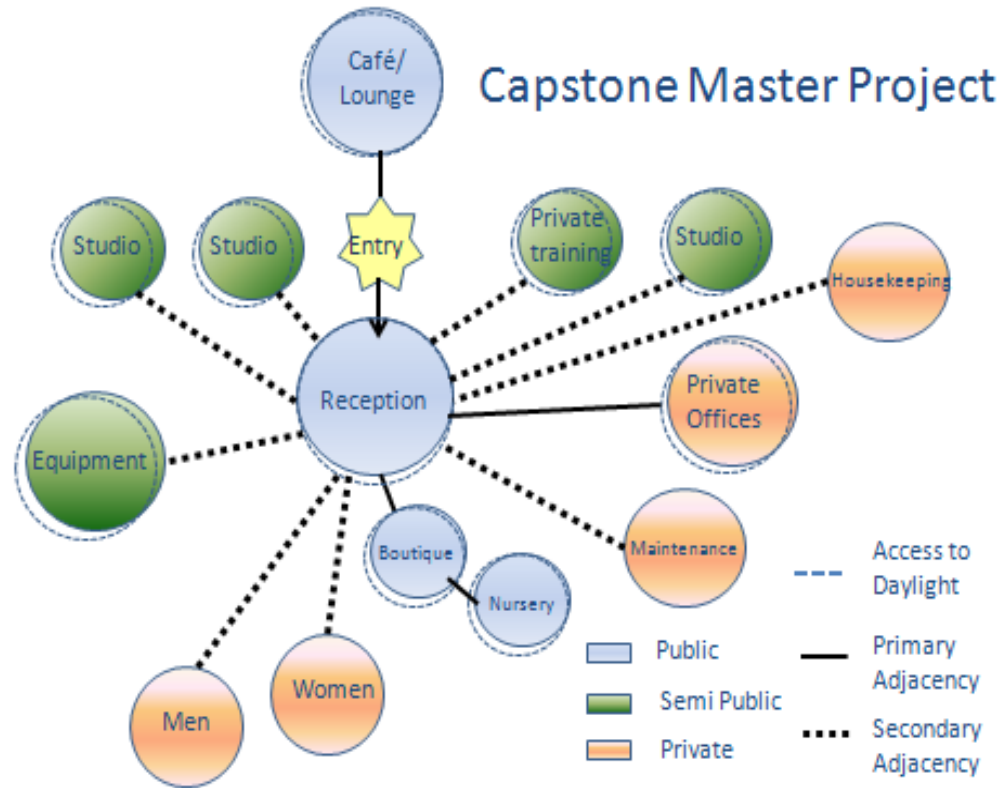
General Overview

The Health Club I will be designing for my Capstone /Master Project will include the following activities:

- Reception
- Café/Lounge
- Private Training
- Nursery
- Boutique
- Private Offices
- Cardio Area
- Equipment Area
- Several Studio Rooms (to allow for different classes)
- Women's Locker rooms
- Men's Locker rooms
- Housekeeping
- Maintenance

Adjacency Diagram

These activities/spaces have been identified as ideal for a health club setting. The information to include them came from the research conducted over the past summer in which two health clubs were analyzed and interviews and observation took place to learn about designing an ideal health club.



Literature Review

The following two articles were obtained through the [informedDesign](#) website and are pertinent to my typology, Health Clubs, since they deal with issues that are important to consider when designing a Health Club.

First Article:

Edworthy, J., & Waring, H. (2006). The effects of music tempo and loudness level on treadmill exercise . *Ergonomics* , 1597-1610.

This study examined how exercise performance, particularly treadmill exercise, was affected by the loudness and tempo of background music. The study explored how participants performed in the presence of music or silence. They tested whether fast and usually loud music has different effects than slow usually quiet music on either or both objective and subjective measures.

The study had 30 subjects, all men, ages 18 to 63 who were either YMCA members or undergraduate students who exercised on a treadmill for 10 minutes. While wearing headphones the subjects were exposed to five music conditions as they exercised. The first was loud and fast music (80dB/200bpm), loud and slow music (80dB/70bpm), quiet and fast music (60dB/200bpm), quiet and slow music (60dB/70bpm), and no music. For each type of music condition, the music was introduced slowly and gradually reached the required decibels after a few seconds.

The subjects 'heart rate and treadmill rate were recorded while exercising. Also subjective verbal ratings of feelings were recorded at 5 minute intervals in response to the feelings scale (Hardy &Rejeski, 1989) and the Rated Perceived Exertion (RPE) scale (Rorg,1962). While the feelings scale assessed the exercise experience from very good to very bad, the RPE scale assessed perceived exertion levels between rest and maximum effort.

The study had the following findings:

- The volume and the tempo of music, as well as the use of music per se, had effects on performance itself, heart rate was highest in the loud, fast condition and lowest in the slow, quiet condition.
- More than anything else the speed of the music affects the speed at which the participant runs, faster music produces faster speeds
- The speed, and to a lesser extent the loudness, of music increases the speed at which exercisers run, the heart rate increases with speed
- Tempo is more important than loudness in increasing heart rate
- In the no music condition they did not work harder, but thought themselves to be working harder
- Analysis of the feeling scales showed that there was a significant effect of music vs. no music
- There was a lower heart rate for slow music than for fast music
- Music is effective in producing positive feelings during exercise

- The RPE was highest for the fast, loud and the control conditions
- Exertion was actually higher in the fast, loud condition

Relation to present study:

This study is important and relevant for my research into developing a health club since it touches upon an important element, how music affects performance while exercising. In order to produce a successful design I must look into everything that affects the users of my space, in this case I can conclude that the acoustics have been shown to be of essential importance for my typology.

This study was conducted with academic rigor and the authors were thorough in their process and methods. This is an important study that sheds light on the relationship between music and exercise performance while carefully examining how different conditions affected the subjects.

Authors:

Edworthy, J.:

Judy Edworthy is Professor of Applied Psychology. Her main area of research interest is that of the design, application, and underlying theory surrounding the use of warnings in both everyday environments and specific high-workload applications.

Second Article:

Schmitz, S. (1999). Gender Differences in Acquisition of Environmental Knowledge Related to Wayfinding Behavior, Spatial Anxiety and Self Estimated Environmental Competencies. *Sex Roles* , 71-93.

The second article studied the difference gender makes in wayfinding. The participants self reported their levels of anxiety and wayfinding preferences. This study included a total of 32 participants, 17 women and 15 men. The average age of the participants was 30 years old. The subjects were German adults and students at the university who completed a questionnaire. The questionnaire rated levels of anxiety about wayfinding, ability to give and receive directions and the ability to estimate distances and read maps. A standardized scale was used to measure anxiety. The subjects were required to perform 3 wayfinding exercises in an unfamiliar building and their speed, errors and routes were tabulated. Upon completing these exercises half were asked to draw maps and half to write descriptions on lined paper of the route. Secondary data from this group was added and included in the analysis. Given the small sample size additional data of 42 adults was included to formulate conclusions about the results.

The study had the following findings:

- Competence scales differ clearly from anxiety
- Analysis of errors revealed no significant effect of gender
- Neither the gender difference nor the correlation between length of stride and initial speed were significant
- The men preferred a mixed landmark /route direction representation
- The women preferred predominantly landmark maps
- The smaller group average for women in number of route directions compared with men reflected individual preferences for landmarks and neglect of route direction information
- Women who scored higher levels of spatial anxiety preferred landmarks/No significant correlations for men
- Gender differences in environmental strategies have been described as consisting of a male preference for the configurational strategy and a female preference for the route strategy
- The breakdown of individual data showed a range of recall preferences with some women also preferring route directions and some men also preferring landmarks
- Higher speed in wayfinding related to a predominance of recalled route directions versus landmarks
- Quicker walkers seemed to rely predominantly on route directions, whereas slower walkers preferred landmarks as wayfinding aids
- The results of this study could not explain why women and men differed in wayfinding speed and associated with speed showed different preferences in environmental representation

Relation to present study:

This study is important and relevant to my future project given its topic, wayfinding. Our job as designers is to create spaces that are legible to the users. It is therefore very important to understand the concept of wayfinding and how the genders differ in their approach. Acquiring this knowledge will help me in creating spaces that will satisfy the needs of men and women in understanding their way around my health club.

This study was conducted with academic rigor and the author was careful in her process and methods. This is an important study that explains the differences in gender when it comes to wayfinding. The study used ample data to come up with their conclusions and was conducted in a thorough manner.

Author:

Schmitz, S:

Sigrid Schmitz is a University professor in Germany; she teaches at the Faculty of Social Sciences and has conducted many studies in Behavioral Psychology

Typology History and Precedent Studies



Literature Review

- *Historic overview of the Typology*

Health clubs also known as gymnasiums have a long history dating back to the Greeks. “The literal meaning of the Greek word *gymnasion* was “school for naked exercise.” The gymnasiums were of great significance to the ancient Greeks, and every important city had at least one. Usually built by the state, these grew from mere gathering places where exercises were performed to imposing structures with dressing rooms, baths, training quarters, and special areas for contests.” (encyclopedia Britannica, 2010)

After the ancient Greeks, gyms disappeared for centuries. Medieval and Renaissance life was physically arduous enough, and ordinary people got all the exercise they needed working on the land and carrying out chores.

By the 19th century, though, schools and colleges were building gymnasiums (and even today, the word "gym" means "school gym class" to many people). The YMCA also built a number of gyms for physical exercise and social sports and games.

During the mid 19th century, the Turnvereine (gymnastics unions) movement led to the founding of Turners, German-American gymnastics clubs. These had a political as well as an athletic element.

A form of gym known as the "boxing gym" began to appear in the 1930s, with the founding of Cus D’Amato’s Gramercy Gym in Manhattan in 1939. These gyms were to train fighters and boxers - not places for general exercise.

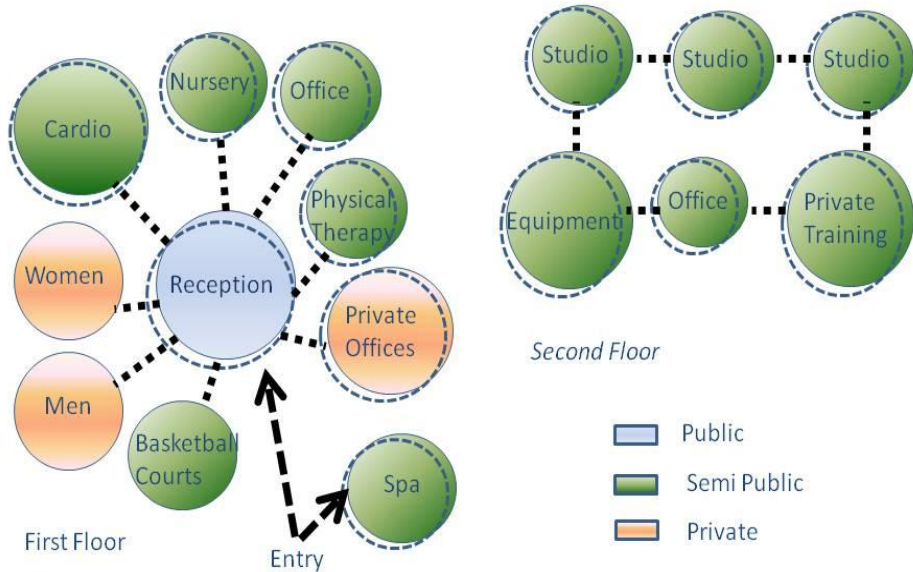
Today, lots of people are or have been gym members - people who would never call themselves "bodybuilders", "fighters" or even especially sporty. New gym chains have sprung up over the past couple of decades; Lifetime Fitness in 1990, Equinox Fitness in 1991, and Virgin Active in 1999.

Widespread celebrity gym-going has encouraged the boon in gym membership, and gyms look set to be popular for decades to come. (Hale, 2010)

A thorough analysis was conducted of three local health clubs:

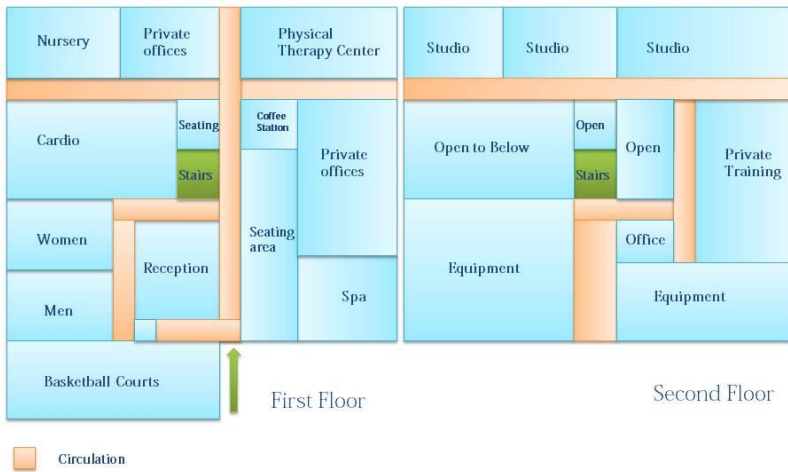
- Shula’s Health Club
- The Sports Club LA
- Equinox South Beach

Shula's Athletic Club



Adjacency Diagram

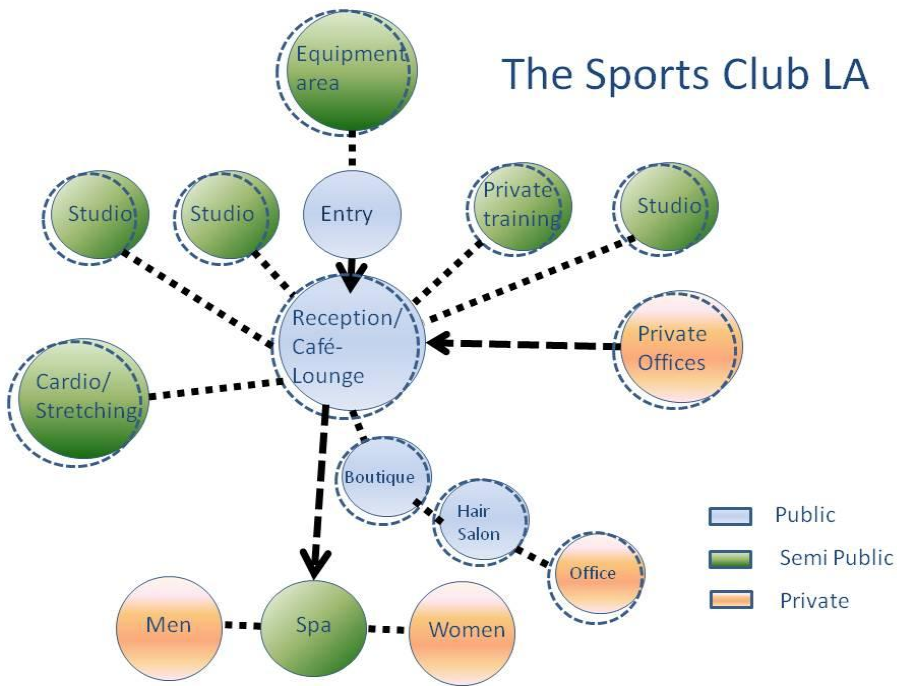
Shula's Athletic Club



Floor Plan



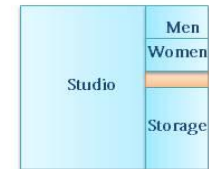
The Sports Club LA



Adjacency Diagram

Sports Club/LA

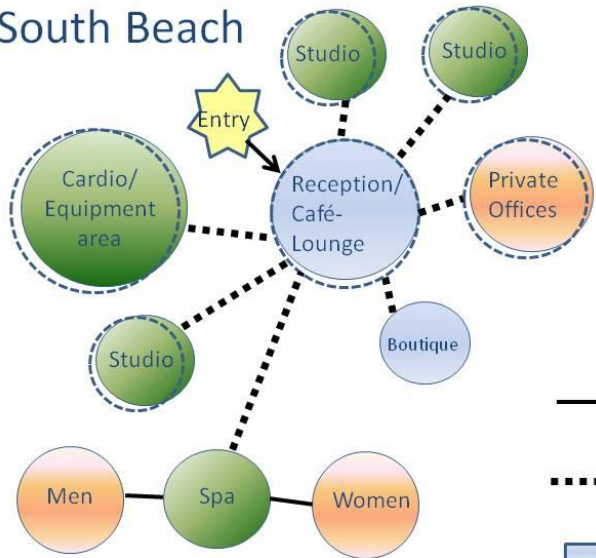
Floor Plan



Second Floor



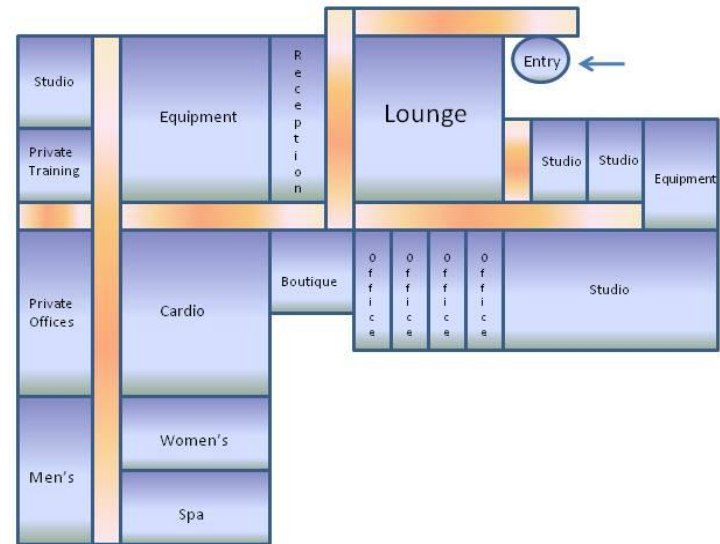
Equinox South Beach



- Primary Adjacency
- - - Secondary Adjacency
- Public
- Semi Public
- Private

Adjacency Diagram

Floor Plan



Similarities in the three clubs:

- Premier health club for its respective area
- High level of maintenance
- Cleanliness
- Spa facility
- Wide range of classes, personal training and equipment

Differences in the three clubs:

- Club's age
- Shula's appeals to a broad range of ages including children while Sports Club/LA-Equinox is adults only
- Shula's club appears crowded in some areas. The Sports Club/LA-Equinox do not
- Only at Shula's can you find nursery facility, tennis courts and physical therapy center
- Equinox also caters to tourists in the area. It is located in the most densely populated and urban area.

My Assessment

All the information I have gathered on these three clubs, the case study and literature review have led me to further understand my typology. The analysis of the journal articles for the literature review helped me in compiling a list of design guidelines to be used in the next Studio class. Here are the concepts I was able to learn from the literature:

- Know your customer. Conduct market research to understand who the users of the space will be.
- Have potential customers be involved in the design process.
- Focus on creating spaces that will result in positive emotions for the customers. The literature has shown this is important to promote customer loyalty.
- Be aware that customers react to hedonic and utilitarian design benefits and try to address both. Research has shown that this will help in maximizing the acceptance and enjoyment of customers of a space.
- Be aware that human factors and image have been shown to play an important role in customer perception of a place. Consider how the design of the space will affect these two factors.
- Focus on a design that will make the users feel engaged and comfortable in. This will encourage continued support of the facility.
- Create spaces that will produce positive reactions for clients on a psychological as well as a physical level.
- Maximize the relationship between perceived usability and visual aesthetics.
- Reduce the possibility of crowding in any space.
- Consider the following design features:
 - Room brightness
 - Size
 - Color
 - Degree of private enclosure
 - Structural Depth
 - Sound Attenuation
 - Visual Access
 - Exposure
 - Window Views
 - Proximity to open spaces
 - Height
 - Well bounded spaces
 - Semi-private and small group interaction spaces
 - Universal Design

Final Summary

As described above all three buildings meet the issues, Totality and Unity, as they have merged logically form with function. The buildings have adequately addressed the functional requirements related to the activities taking place while also they show unity given the interrelationships among the component parts.

From my point of view all buildings are interesting in that they fit well within their respective environments. I believe it is important to respect the character of the neighborhood and blend with the nature around it. All of these buildings meet this criterion and are a welcomed addition to the landscape.

The buildings in my opinion are beautiful given the above reasons of respect for the surrounding environment, quality of materials and choices of colors.

It is in my opinion impossible to describe somebody else's intentions without having some basis to formulate an opinion. From a purely visual point of view I believe the designers of these buildings wanted to create pleasant environments that would meet the needs of its users and I believe they have succeeded in that pursuit.



Client Owner

Owner Narrative

Client is a thirty five year old Brazilian female who is passionate about fitness. She came to the U.S. for college and majored in Health with a minor in Business. She has been a lifelong exercise enthusiast. After college she started to work in the U.S. as a physical education teacher while moonlighting as an aerobics instructor at night. She has witnessed the changes taking place at gyms for the past twenty years as a consumer, instructor and eventually as a business partner at a health club in her neighborhood. This gym was eventually sold to a health club chain due to its advantageous location. She now has the funds available to create her dream health club and she is looking forward to the challenge. Her club will be designed in the U.S. but built in her native Rio de Janeiro. The client has chosen to do this given her familiarity with health clubs in the U.S., she feels their business model can work very well in Brazil. Her wish is to combine U.S. knowhow with Brazilian flavor to create a place that will include all the features she has seen be successful in the health clubs she has visited. She wants to create a space that will induce customer loyalty and an association with health and well being.

Goals and Objectives:

The following analysis was developed from the client interview and filled out questionnaire. The client wants to develop a health club that will demonstrate her passion for fitness. She wants to use the knowledge she has gained at gyms for the past twenty years as a consumer, instructor and a business partner. She wants to create her dream health club while keeping an eye on the bottom line. Her club will showcase her experience as an American citizen while being influenced by her native country, Brazil. She wants to create a space that will induce customer loyalty and an association with health and well being. The questionnaire she was given highlighted the following areas to guide in the design of the space:

Aesthetic Issues, Cultural specific elements/issues, Business Aspects (Quality vs. Quantity, growth rate of business, initial vs. long term costs), Organizational Structure and Activities and Areas to be included (Needs /wants/concerns for the space). The answers she provided will help guide the design effort to achieve a space that meets and or exceeds her expectations.

Design Guidelines:

The design of the health club will consider all the following: (from client answers)

To create a modern space; incorporating red, orange, yellow, green and blue hues that range in vibrancy.

- A variety of materials should be utilized in the space. These materials will include wood, stone, tile, fabric and metal.
- The ambiance at the club will lean towards high energy, on a scale of 1 to 5, a 4, with 5 being high energy.
-

- Client wishes to bring the outdoors in. The location, the district of Leblon, and the fact that it is just steps away from Ipanema Beach, should be reflected in the interiors.
- Cultural heritage will be reflected in the materials, colors and accents at the club.
- The client wishes for the overall look to be cohesive with some areas to be standout features in the club. Some new features will be incorporated as the club grows.
- The client sees the configuration of the space to be more rigid but still allow some flexibility to allow for reconfiguration of some spaces as needed.
- There should be a combination of equipment, weights and cardio within a space.
- Reception/lounge should be separate from areas where exercise is taking place.
- There will be use of both walls and dividers to achieve privacy.
- Areas of close proximity are: Reception, offices and café/lounge together and private training, studios and equipment together.
- Separation of spaces should occur between the reception/lounge and the workout areas.
- The client wishes an emphasis in the design effort to fall in the training and Reception/lounge areas.
- Acoustical separation should be experienced in the studios and reception/lounge areas in order to fully engage in the activity taking place within those areas without having noise distractions.
- The client wishes for some sustainable features to be incorporated in the design.
- Security concerns are with point of entry. Entrance to the club should be designed to allow close monitoring of people wanting to come in. Only members and staff should be allowed in the premises.

General design guidelines will also take into consideration:

- Reducing the possibility of crowding in any space
- Room brightness
- Size
- Color
- Degree of private enclosure
- Structural Depth
- Sound Attenuation
- Visual Access
- Exposure
- Window Views
- Proximity to open spaces
- Height
- Well bounded spaces
- Semi-private and small group interaction spaces
- Universal Design



Location and Site

I have decided to locate my health club in Brazil. On my visit to Rio de Janeiro I witnessed how beauty, health and participation in sports are very much part of the culture

Further reasons to choose Brazil:

- Brazil is the second largest fitness and wellness market in the world, and the largest in Latin America, with over 14,000 health clubs. (IHRSA, 2010)
- The Brazilian culture is very body conscious, they take their image very seriously and an exercise regimen is very much part of a great many Brazilian's routine. (In the big country, 2005)
- With a young median age of 28.9 years old and mostly tropical weather except for temperate in the South, Brazilians enjoy being outdoors, being healthy and looking good. The official language of the country is Portuguese. (WorldRover, 1998)
- Rio de Janeiro is ground zero for the "fio dental" which translates as "dental floss", we have come to know it as the thong. (In the big country, 2005)
- Brazil is known for its hedonistic beaches and cities. (In the big country, 2005)
- Brazil has a very strong connection with sports; most of the people in Brazil regularly follow and participate in various sports. (IHRSA, 2010)
- Some of the sports Brazilians regularly practice are: football, swimming, sailing, judo, boxing, handball, water polo, hockey, rugby and baseball. (In the big country, 2005)
- The International Health, Racquet & Sportsclub Association is the fitness industry's only global trade association. IHRSA represents over 9,000 for profit health and fitness facilities and over 650 supplier companies in 75 countries. This September it will hold its conference and trade show in Sao Paulo, Brazil. (IHRSA, 2010)
- Brazil will host the 2014 World Cup. (Brasil 2014, 2010)
- Brazil is the only country to have participated in all of the Football World Cups and having qualified in all of them. No other country has done this. (Brasil 2014, 2010)
- Brazil holds the record for winning the World Cup a total of five times. (Brasil 2014, 2010)
- Brazil has been participating in the Olympics since the 1920' having won numerous medals in the Summer Olympics games. (In the big country, 2005)
- Brazil is the ninth largest economy in the world. (In the big country, 2005)
- Brazil is the most populated country in South America and the world's fifth largest country in terms of population. (In the big country, 2005)

Rio de Janeiro

I will be locating my health club in Rio de Janeiro; it is the capital of Rio de Janeiro state and former capital of Brazil. This is the second largest city in the country after Sao Paulo.; it is known to be the cultural center of the country and a financial, commercial, communications, and transportation hub. Rio has an international airport and subway system. (Facts of Brazil and Rio de Janeiro, 2010)

The city acquired its modern outline in the 1900's and extensive public sanitation and remodeling have been continued. Hills have been leveled, tunnels constructed, parts of the bay filled, parks created, and beautiful palmed lined drives built to connect the various districts. (Facts of Brazil and Rio de Janeiro, 2010)

Political/Government

Brazil is a Federal Republic; its nation's capital is Brasilia. Brazil's official name is Republica Federativa do Brasil. There are 26 states and one federal district. It gained its independence from Portugal in 1822 and its legal system is based on Roman codes. The government is divided into an executive, legislative and judicial branch. There are numerous political parties in Brazil. The head of state and government is the President; its current president is Luiz Inacio Lula da Silva from the Partido dos Trabalhadores (Worker's Party). The monetary unit is the real. According to a 2009 census estimates its population is 191,481,000. (Facts of Brazil and Rio de Janeiro)

Economic Environment/Support

Brazil is the fifth largest country in the world after Russia, Canada, China and the USA. Brazil's economy outweighs that of all other South American countries and is expanding its presence in world markets. It possesses large and well developed mining, agricultural, manufacturing and service sectors. The deep harbor in Rio de Janeiro allows for large vessels to come alongside the wharves, which lie near the city center. These ports allow for imports and exports to flow. Typically iron ore, manganese, coffee, cotton, meat and hides. Rio is also a distribution center for the coastal trade. The city's manufactures include textiles, foodstuffs, household appliances, cigarettes, chemicals, leather goods, metal products and printed materials. There are two major airports in Rio. (In the big country, 2005)

Cultural and Social Underpinning

Brazil's population is comprised of different races. The Portuguese colonized Brazil and often times mated with the existing Indians. Slaves from Africa were imported and further contributed to the mix. Brazil has been populated by blacks, whites, mulattos, Chinese and others. Catholicism is the official religion of the country, however many other religions are practiced here as well. (Facts of Brazil and Rio de Janeiro, 2010)

Rio's annual Carnival attracts more than half a million visitors a year in a generally peaceful but decadent celebration that revolves around samba music. Samba originated with slaves brought to Brazil from Africa and became widely popular in the 1920's with the formation of Rio's samba schools, whose spectacular parades are the centerpiece of Carnival. (Destination Rio de Janeiro, 2010)

Rio has given birth to rich musical genres, including bossa nova, choro and samba. People born and raised in Rio are called cariocas. (Destination Rio de Janeiro, 2010)

Geographic Characteristics

Brazil's climate is mostly tropical but temperate in the South. In Rio de Janeiro February is the warmest month, July the coolest. December is the wettest month while August is the driest. (Facts of Brazil and Rio de Janeiro)

Brazil is the largest country in South America and it shares common boundaries with every South American country except Chile and Ecuador. Brazil's terrain is mostly flat to rolling lowlands in the north; some plains, hills, mountains, and narrow coast belt. Rio's famous beaches stretch for about 30 miles, Rio boasts the world's largest urban forest. The Tijuca forest covers some 7,900 acres. (Facts of Brazil and Rio de Janeiro)

Rio is credited with having one of the most beautiful natural harbors in the world. It is surrounded by low mountain ranges whose spurs extend almost to the water side, thus dividing the city. Natural landmarks of the city are Sugar Loaf Mt., Corcovado Peak, the site of the colossal statue of Jesus, and the hills of Tijuca and Gavea. The state capitol has 5,857,904 inhabitants divided into four zones with a total of 160 city neighborhoods, suburbs or "barrios" as it is called in Portuguese. (Destination Rio de Janeiro, 2010)

Architecture of the Area

Brazilian architecture has developed as a result of a complex cultural process and architects, both Brazilian and immigrants have always contributed to breaking the mold. Brazil's architecture is one of the world's most progressive and intercultural. In the eighteenth century Dutch occupation played a big role in the architecture of the country through the formation of the cities of Recife and Sao Luis. In the nineteenth century the French missionaries affected the architecture of Rio de Janeiro. (Rio de Janeiro, 2008)

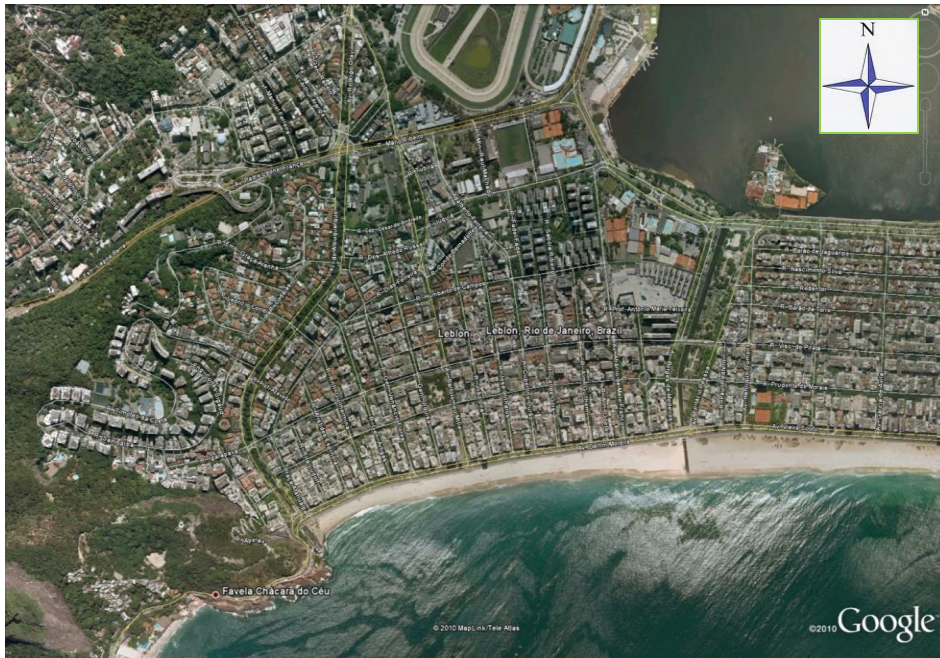
Modernism in Brazil was greatly influenced by Le Corbusier, Walter Gropius, Mies Van der Rohe and Frank Lloyd Wright. In Brazil some of the most famous modern architects and urban planners who had a great deal of influence in shaping the landscape are, Affonso Eduardo Reidy, Joao Batista Vilanova Artigas, Lucio Costa, Oscar Niemeyer, Paulo Mendes da Rocha, Roberto Burle Marx and Ruy Ohtake. (Rio de Janeiro, 2008)

Decision of the actual site

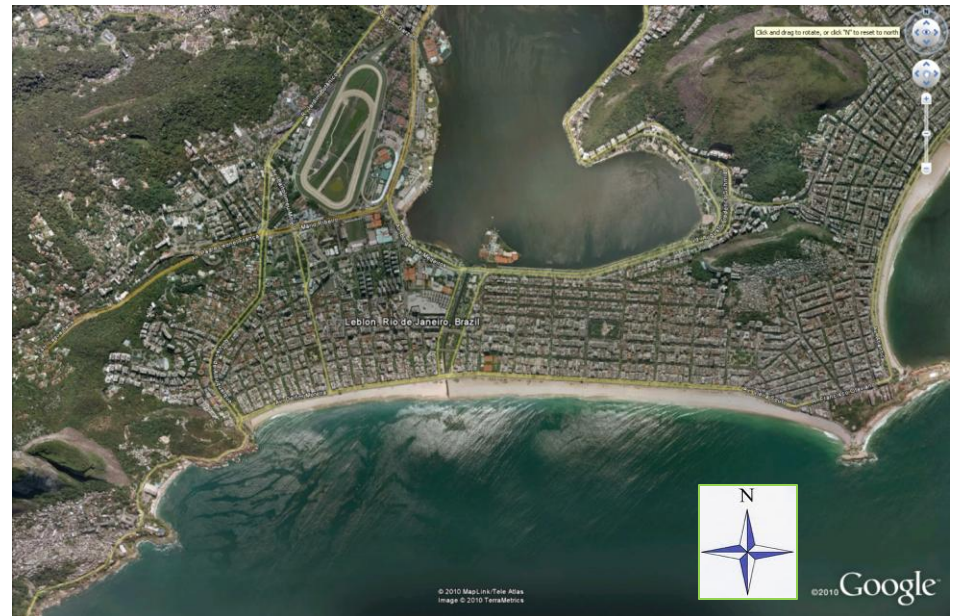
There are six million people occupying an area of 485 square miles in Rio de Janeiro. The many districts of the city lie in three major areas: Center, South and North (which includes the suburbs). The more affluent South comprises the area between the hills and the sea from the Center to the northern and eastern limits. The great majority of tourist attractions and trendy shopping districts are concentrated in the Center and the South. (All About Leblon, 2010)

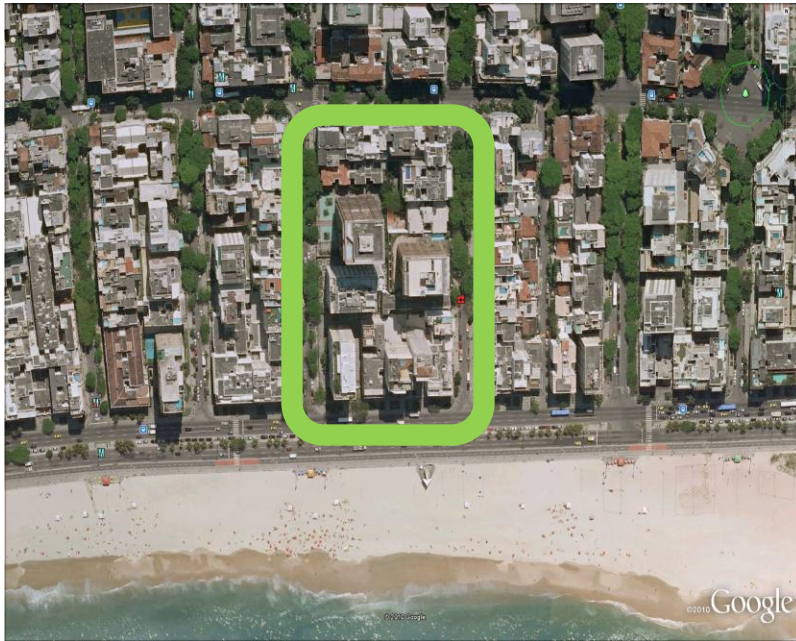
I have chosen the district of Leblon as my site. Leblon is the most sophisticated and expensive district in Rio. This area has great nightlife, bars, restaurants, theaters, large mansions, elegant flats, bookshops, schools and supermarkets. Leblon is in close proximity to Ipanema and Copacabana. Leblon and Ipanema share the same beach, the border is a shallow canal and park known as Jardim de Ala (Allah's Garden). (All About Leblon, 2010)

Large area maps of Leblon



Zoomed in area of site





Brazilians are full of life and want exciting engaging spaces it is therefore important to include the following design features into these spaces that will reflect their identity:

- Room brightness
- Appropriate size of room for the activity
- Colors that are representative of the taste and image of Brazilians
- Degree of private enclosure
- Structural Depth
- Sound attenuation
- Visual access
- Exposure
- Window views
- Proximity to open spaces
- Semi-private and small group interaction spaces
- Universal design

Summary and Design Guidance

The significant issues I am dealing with for my typology in Brazil are:

- Understanding the Brazilian aesthetic and incorporating it into my design.
- Reflect the rich cultural heritage of the country.
- Incorporate the character of the people, their exuberance and national identity into the design.
- Address utilitarian and hedonic design features that will fit into the culture.
- Address the human factors; reflect the image that Brazilians have of themselves in my design.
- Create spaces for the users to feel engaged and comfortable as they are involved in an activity they enjoy.
- Address psychological and physical needs of the users.
- Maximize the relationship between perceived usability and visual aesthetics.
- Reduce the possibility of crowding in the spaces.

The Health Club I will be designing for my Capstone /Master Project will include the following activities:

- Reception
- Café/Lounge
- Private Training
- Nursery
- Boutique
- Private Offices
- Cardio Area
- Equipment Area
- Several Studio Rooms (to allow for different classes)
- Women's Locker rooms
- Men's Locker rooms



Client User

DETERMINE THE USER TYPES

Health Club Member

Health Club Trainer

Health Club Staff -Administrative

Health Club Staff –Service

DETERMINE THE NUMBER OF USERS

Health Club Members – 400

Health Club Trainers - 10

Health Club Staff –Administrative 20

Break down of staff:

General Manager 1

Operations Manager/Sales 1

Group Exercise Manager 1

Executive Assistant to Manager 1 Member Services Person 1 Front desk personnel 3

Sales and general office staff 12

Health Club Staff –Service – 30

Break down of staff:

Café personnel 3

Housekeeping personnel 16

Maintenance personnel 11

DEVELOP A SET OF DESIGN GUIDELINES

Health Club Trainer

- A separate area to train his clients.
- This space will have some flexibility to reconfigure the space as needed while some parts of the space will never change.
- The rate of stimulation in the space must be on the high range for visual and auidial less so for tactile and not much olfactory stimulation.
- To have music in the space to help his clients become energized.
- To have a computer station accessible for his work, easy access to equipment needed for clients.
- Equipment and cardio conveniently accessible to clients.
- Some privacy for clients to enjoy while they train but with partial views of the club.
- Separate area for trainers to gather, access to lockers and desk.

DEVELOP A SET OF DESIGN GUIDELINES

Health Club Member

- These guidelines were developed from the answers to the questionnaire and a desire to meet both the physical and psychological needs of the members.
- To create a modern space; incorporating a variety of colors and materials.
- The ambiance at the club will lean towards high energy, on a scale of 1 to 5, a 4, with 5 being high energy.
- The rate of stimulation in the space must be on the high range for visual, middle for audial, low for tactile and very low for olfactory. The member rated the importance she placed on comfort and style in the high range.
- Reflecting cultural heritage in the design is not of high importance for the member.
- For standout features in the design of the reception, café/lounge and locker rooms; however having the design be cohesive is important for the member.
- For the space to be somewhat rigid in configuration, allowing for some open areas while others to be enclosed.
- For a combination of activities and areas, equipment, weights and cardio, while there should be separation from the workout areas in the reception/lounge.
- The separation can be achieved through the use of walls or dividers.
- Adjacent areas should be the reception and café/lounge, the private training, studios, equipment and cardio and the reception, nursery and boutique.
- Areas separate from each other should be reception/café and workout areas.
- Member is not very concerned with safety.
- Views and connection to the outdoors are important in the reception, café/lounge, equipment, cardio and studios
- Visible signage is not very important for the member and she wishes for an increased level of privacy in the locker rooms.

Health Club Staff- Administrative

- Music in work area.
- Work area to be adjacent to reception.
- Feels signage is important at the club.
- Wishes for a partially enclosed work area.
- Wishes for acoustic separation from other areas of the club.
- Work area should be somewhat accessible to members.
- Not highly concerned with safety at the club.
- Mildly concerned for access to daylight/views.
- Higher rate of importance placed on comfort versus style.
- The rate of stimulation in the space must be on the high range for visual, mid for audial, less so for tactile and not much olfactory stimulation.

Health Club Staff- Service

- Music in work area.
- Work area to be conveniently placed to have easy access to the entire club.
- Wishes for somewhat enclosed work area.
- Not so accessible to members.
- Not very concerned with safety.
- Mid level concern for access to daylight/views.
- Mid level importance placed on comfort and style.
- The rate of stimulation in the space must be on the high range for visual, mid for audial, less so for tactile and not much olfactory stimulation.



Project Goals and Objectives

MISSION STATEMENT

- The purpose of this project is to create a health club whose physical characteristics help promote health and well being for its members as well as customer loyalty from them.

Organizational Goals and Objectives

- The club will have an environment where its users feel comfortable and engaged with their surroundings.
- Provide the highest quality experience for the users of the health club.
- Cater to members aged 20-80 with a variety of activities that are age appropriate.
- Attend to both physical and psychological needs of the users in the built environment.
- Create an atmosphere, aided by the built environment, of health and well being for all the users of the space.
- Promote customer loyalty by creating an environment where members feel glad to be there.

Facility Goals and Objectives

- Form:
- A welcoming environment, a modern facility with state of the art classes and equipment where members are proud to attend.
- Create a balance of engagement and relaxation to meet the diverse needs of its users.
- Design functional spaces that also meet the aesthetic expectations of its users.
- Provide a unique experience where quality is an adjective that comes to the mind of its users.
- The design should reflect the character and passion of its owner.
- The design should fit with and reflect its location, its neighborhood, city and country.

Functional

- The club should be able to accommodate 400 people at any one time.
- The club should have spaces that cater to all its different users from members to staff.
- The environment should promote the well being of its users by the elements that are contained within.
- Space will be created to address the need to house the following:
 - Reception
 - Café/Lounge
 - Private Training
 - Nursery
 - Boutique
 - Private Offices
 - Cardio Area
 - Equipment Area
 - Several Studio Rooms (to allow for different classes)
 - Women's Locker rooms
 - Men's Locker rooms

Economy

- The design of the club will strike a balance between cost and quality, not to come up short on either.
- An implementation of energy conserving features will be undertaken.
- Sustainable materials will be utilized in the project. Native materials will be used.
- The initial cost will be defended by the quality of the end product.
- The design will address the need of having a space that ages well and is not shortsighted in not including features that will not support a growing population of members.

Time

- Utilize good design that is timeless and not overly trendy.
- Create some spaces that may accommodate a growing customer base.
- Incorporate flexibility in some areas that may possibly change in use in the next few years.
- Address timeline needs of the owner.

QUANTITATIVE REQUIREMENTS



DEPARTMENT	ACTIVITY	NUMBER OF PEOPLE	EFFICIENCY FACTOR	INDIVIDUAL NET	INDIVIDUAL GROSS	TOTAL # NET	TOTAL # GROSS	ACTUAL SQUARE ROOT NET	ACTUAL # NET Sq Ft	ACTUAL # GROSS Sq Ft	METRIC ACTUAL # NET	METRIC ACTUAL # GROSS
Reception	Greeting members	2	0.8	15	19	30	38	11	120	150	11	14
Lounge	Gathering	10	0.75	15	19	150	188	17	300	400	28	37
Café	Food preparation/Sales	3	0.7	140	200	420	600	20	420	600	39	56
	Food consumption	12	0.7	140	200	1680	2400	41	1680	2400	156	223
Private Training	Exercise instruction	6	0.75	12	15	72	90	17	300	400	28	37
	Trainer's station	5	0.75	12	15	60	75	9	75	100	7	9
Nursery	Babysitting services	10	0.75	20	25	200	250	14	187.5	250	17	23
Boutique	Display/Purchase	8	0.75	50	63	400	500	17	300	400	28	37
Private Offices	General Manager	1	0.8	80	100	80	100	13	180	225	17	21
	Operations Manager/Sales	1	0.8	80	100	80	100	13	160	200	15	19
	Group Exercise Manager	1	0.8	80	100	80	100	11	120	150	11	14
	Executive Assistant to Manager	1	0.8	80	100	80	100	10	100	125	9	12
	Member Services Person	1	0.8	80	100	80	100	10	100	125	9	12
	Sales staff	12	0.8	80	100	960	1200	31	960	1200	89	111
Cardio/Equipment	Cardio/Weight training	40	0.8	40	50	1600	2000	45	2000	2500	186	232
Studio Rooms	Yoga studio	20	0.66	12	15	240	300	16	264	400	25	37
	Pilates studio	6	0.66	12	15	72	300	14	198	300	18	28
	Group Exercise Studio	30	0.66	12	15	360	450	16	264	400	25	37
	REV Studio	15	0.66	12	15	180	750	24	561	850	52	79
Women's Locker Rooms	Dressing/Make up station	4	0.75	40	50	160	200	15	225	300	21	28
	Sinks/Toilets	4	0.75	40	50	160	200	15	225	300	21	28
	Showers	4	0.75	40	50	160	200	12	150	200	14	19
	Sauna	4	0.75	40	50	160	200	12	150	200	14	19
	Steam room	4	0.75	40	50	160	200	12	150	200	14	19
	Whirlpool	4	0.75	40	50	160	200	12	150	200	14	19
	Lockers	8	0.75	40	50	320	400	19	375	500	35	46
Men's Locker Rooms	Dressing station	4	0.75	40	50	160	200	15	225	300	21	28
	Sinks/Toilets	4	0.75	40	50	160	200	15	225	300	21	28
	Showers	4	0.75	40	50	160	200	12	150	200	14	19
	Sauna	4	0.75	40	50	160	200	12	150	200	14	19
	Steam room	4	0.75	40	50	160	200	12	150	200	14	19
	Whirlpool	4	0.75	40	50	160	200	12	150	200	14	19
	Lockers	8	0.75	40	50	320	400	19	375	500	35	46
Housekeeping	Housekeeping-Cleaning/storage	2	0.75	80	100	160	200	35	1200	1600	111	149
Maintenance	Maintenance-Repairs/mechanical	2	0.75	240	300	480	600	51	2625	3500	244	325
Totals		252				10024	13640		14964.5	20075	1390	1865

*All figures were calculated with the help of the handout given out by Dr. Abbott. This included Net to Gross Ratios for Common Building types and section 1004 occupant load.



Mentor Session

On December 1, 2010 I met with my mentor Greg Walton, Vice president at RTKL Associates Inc. The office is located at 1500 San Remo Ave, Suite 350, Coral Gables, FL 33146. Mr. Walton was very generous with his time and expertise and I gained valuable insight from this meeting.

We began by having him review all assignments in the programming course one by one and making comments on them. I left Mr. Walton a copy of each assignment and he said he would respond to Dr. Abbott's request of a review.

During the session:

- He was pleased with the level of effort and organization.
- He informed me of his experiences as a repeat visitor to Brazil, my country's choice for site. I will be able to gain invaluable insight given his knowledge of the country and the culture.
- We discussed my typology, health club, and what he expected would be emerging trends in this field.
- He suggested pursuing research indicating new trends in technology that will be impacting this field and incorporating them into my project.
- He suggested a focus on utilizing sustainable products for this project as this is a trend that is not only important for the environment but one that architectural/design firms are committed to.
- We discussed my chosen building and I showed him all available documentation I had collected thus far on this building.
- I proposed using the REC center given that it is currently a student gym and I was interested in converting it to fit in with a different clientele as demonstrated in my research. Mr. Walton approved of this choice.
- He mentioned I did not need to occupy the entire city block as my map suggested.
- I informed him of my desire to place an organic type market in the part of the building not being used for the health club as I thought this would be a compatible use of the space.
-
- As stated earlier my chosen city is Rio de Janeiro, Brazil and the district where I will be placing my health club is the district of Leblon. As the map below indicates, Leblon is a densely populated area and I chose to take an existing city block facing the ocean to place my building.

Reasons for choosing the Rec Center

- My typology requires a building with visual access to the exterior.
- Ample windows that cover a large portion of the building are a plus.
- Modern design of the building fits in with the location. Rio is a modern, cosmopolitan city that appreciates modern design.
- I have positioned the west side of the building which contains a curtain wall to face the ocean.
- Open space area on the first floor is an ideal gathering spot and provides space to conduct outdoor classes.
- I have the opportunity to design an upscale health club where a student health club exists. It is an interesting exercise to compare and modify it to fit in with a different clientele.
- I believe I will be able to fit all my programming needs in this building.

