

FARKA LAKE PARK REVITALIZATION IN THE CITY OUTSKIRTS OF
TIRANA

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IDI BALLA

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Idi Balla

Signature:

ABSTRACT

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Idi, Balla

M.Sc., Department of Architecture

Supervisor: Msc. Artan Hysa

Co-Supervisor: Msc. Egin Zeka

Air pollution is nowadays the biggest problem for the environment in the world and also the biggest challenge to deal with for saving our planet. The last decade has been very harmful for the environment, with modern industries being developed, which release dangerous gases, like: motor vehicles industry, power stations, factories, landfills, etc. Even in Albania, the air pollution is enormous and this pollution is mostly caused by vehicles which work with a diesel engine. In Tirana, with the new territorial reform which took place in 2015, there are roughly 100 lakes inside the city boundaries and their belonging parks that surround these lakes and the majority of them are not being harnessed. These green areas are located mostly in the outskirts of the city, while inside the city there is a notable lack of attention for parks and green spaces.

There are two strategies that can be taken in consideration to reduce air pollution. The first one is state politics, which have to do directly with the causes of the pollution, and the second one is the increase and maintenance of green spaces, in and around the city, which can consist on parks, wetlands or any other type of green spaces.

The purpose of this thesis is to study the green spaces around Farka Lake, which are currently not being used, and specify the different spaces near the lake, according to their characteristics. After analyzing the chosen area, the thesis will consist in a conceptual project, with many different interventions that will return the spaces around the lake into a recreational park, not only for the residents of Farka, but also for all the people who live in Tirana.

Keywords: Landscape; Green Systems; Revitalization; Urban Park; Artificial Lake

ABSTRAKT

RIVITALIZIM I PARKUT TE LIQENIT TE FARKES NE RRETHINAT E QYTETIT TE TIRANES

Balla, Idi

Master Shkencor, Departamenti i Arkitektures

Udhëheqësi: Msc. Artan Hysa

Udhëheqësi i përbashkët: Msc. Egin Zeka

Ndotja e ajrit është në ditët e sotme problem me i madh për mjedisin në botë dhe gjithashtu sfida me e madhe për tu përballur për të mbrojtur planetin tonë. Dekada e fundit ka qenë shumë e demshme për mjedisin, me industritë moderne duke u zhvilluar, të cilat çlirojnë gazra të rrezikshme, siç janë: industritë e mjeteve motorrike, centralët elektrikë, fabrika, landfildet, etj. Edhe në Shqipëri, ndotja e ajrit është e madhe dhe kjo ndotja shkaktohet me se shumti nga mjetet që punojnë me një motorr naftë. Në Tiranë, me reformën e re territoriale që hyri në fuqi në vitin 2015, gjenden rreth 100 liqene brenda kufirit të qytetit sëbashku me parqet perkatese që rrethojnë këto liqene dhe pjesa me e madhe e tyre nuk janë duke u shfrytëzuar. Këto hapësira të gjelbërta gjenden me se shumti në periferitë të qytetit, nderkohe që brenda në qytet ka një mungesë vëmendjeje të dukshme për parqet dhe hapësirat e gjelbërta.

Jane dy strategji që mund të merren në konsideratë për të reduktuar ndotjen e ajrit. E para janë politikat shtetërore, që kanë të bëjnë në mënyrë të drejtperdrejte me shkaktohet e ndotjes, dhe e dyta është rritja dhe mirëmbajtja e hapësirave të gjelbërta, brenda dhe rreth e rrotull qytetit, të cilat mund të jenë parqe, laguna ose cdo lloj tjetër i hapësirave të gjelbërta.

Qellimi i kesaj teze eshte te studioje hapesirat e gjelberta rreth liqenit te Farkes, qe per momentin nuk jane duke u perdorur, dhe te specifikojte hapesirat e ndryshme prane liqenit, ne baze te karakteristikave te tyre. Pasi te analizohet zona e zgjedhur, teza do te konsistoje ne nje projekt konceptual, me shume nderhyrje te ndryshme, qe do te ktheje hapesirat rreth e rrotull liqenit ne nje park rekreativ, jo vetem per banoret e Farkes, por edhe per te gjitha njerezit qe jetojne ne Tirane.

Fjalët kyçe: Pejzazh; Sisteme te Gjelberta; Rivitalizim; Parqe Urbane; Liqen Artificial

Dedicated to my family and friends.

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LIST OF ABBREVIATIONS

CORINE	Coordination of Information on the Environment
MoT	Municipality of Tirana
TEG	Tirana East Gate
SWOT	Strengths, Weaknesses, Opportunities, Threats

CHAPTER 1

INTRODUCTION

1.1. Environmental Problematics Nowadays

All around the world, in the recent year's governments and people are trying to change the way we live and to redirect the future of our cities to an eco-friendly environment. There are many different urban systems that all together create the whole environment and governments are taking more measurements on these systems to improve the quality of life. We have different examples of these measurements in different countries.

An urban system that is mostly identified having a close relationship with the environment is the urban traffic and usage of vehicle and other transport ways that release dioxide carbon in atmosphere thus lowering the air quality. Some of world governments are stopping the traffic in particular days of the week or some parts of the cities are becoming exclusive only for pedestrian, bicycles or other alternative transport items that don't pollute the atmosphere.

Another measure, which is being taken throughout the developed countries around the world and also being taken by the Albanian Government and especially by Tirana Municipality, is the increase of green spaces in the city by planting more than 9000 trees in the last 9 months [gazetaexpress.com, 2016], as stated by Erion Veliaj, the Mayor of Tirana. This politic will guarantee the improvement of air quality and eventually it will lead to the increase of green urban systems that are so much needed today.

1.2. Green Urban Systems

The urbanized areas, to maintain a good balance of life quality, need to be filled with green urban systems. In order to provide a better quality of life, the cities should be organized with a strong presence of continuous green infrastructure. These systems offer very good natural solutions to both urban and climatic changes and problematics. Green spaces can have a positive impact in environmental, social and economic aspects of urbanized areas. In the natural aspect, green urban systems agenda can protect biodiversity, improve the quality of water and air and restore natural resources. Regarding the economical benefits, we can increase the efficiency by reducing energy expenses and the social benefit is improving overall life quality. The green spaces that nature offers us can be an important factor for the community. When natural resources like green areas are used and harnessed by people as infrastructural systems they are called green infrastructure.

1.2.1. Green Infrastructure Typologies

There can be different typologies of green infrastructure. One example are the urban forests, located inside the cities and planted with a diversity of trees and vegetation plants. They clean the air and also offer relaxing spaces for citizens. Another example can be man made wetlands which have the effect of a bio-filtration system, purifying water, protection from floodings, etc [ecy.wa.gov, 2011]. Also greenroofs can help improving air and water quality and in the same time reducing energy expenses. They can manage stormwater runoff, help building new habitats or they can be a very good roof insulation, reducing heating and cooling demands and thus improving indoor comfort by reducing heat transfer [lakesuperiorstreams.org, 2012].

1.3. Tirana Development

During the city development there have been many different regulatory plans. The first sketches of the city plan were made by Austrians in 1917 and the first regulatory plan was also made by during the Austro-Hungarian invasion in 1923 and the second plan was in 1926. The third and fourth plans were the ones of King Zog in 1928 and 1929. Then we have the plans of 1940 and 1942 during the Italians invasion. The person who was in charge of the plan was architect Gherardo Bosio. The next plan was in 1957 giving the city the ring boundaries that has today [botasot.info, 2015].

After communist period the first plan that was made in 1990 had as its priority only to adapt the city to its increasing needs of new buildings. In the 1957 plan the city was planed to be extended until the boundaries of the ring but in 1990 these boundaries were exceeded and the road system was left behind [botasot.info, 2015].

After 1990, Tirana faced a very rapid and unplanned urbanization process where people were building wherever they wanted and this led to major urbanization problems that can also be evidenced even nowadays. In the 90's Tirana used to have an average of 10 meters/square of greenery for every person. Today that average is 2.8 meters/square per person, far away from the European Union rate that is 7 m² per person, [ikub.al, 2011] as said from Hafiz Marku, ex-director of greenery office in the municipality of Tirana.

1.3.1. Tirana Green Infrastructure

During years, some of these regulatory plans have left their signature in the city with parks and green areas that are still existing nowadays and are a landmark for the city. The history of greenery of Tirana has deep roots since the otoman empire, which firstly registered the grounds where Tirana stands today, in the 13 century. At that time there were only open green fields, before the city was founded in 1614. From these times until

1920's, there weren't any significant history of the city greenery as most of the city consisted on open green spaces and homes with private gardens. In 1930's, with the building of the main boulevard and other government building the new Tirana started taking shape but it wasn't until 1950 that there were created the first parks of Tirana. Until this time the city continued to consist mostly in open green spaces which weren't maintained parks or created by people. Only the ones who lived in private homes had small private gardens.

The first true park of Tirana was the Artificial Lake Park (*Fig. 1*) which was built in the 1950's [tirana.al, 2016] and has an area of approx. 234 hectares. There are many different attractions and landmarks in this park. Except of the lake, there is the dam, used as a promenade, the amphitheater, pavilions, religious buildings, sports areas, the Presidential Palace, etc. Another park that was built in 1950's was Rinia'(Youth) Park, which covers an area of approximately 30 hectares [tirana.al, 2016]. The main landmark of the park is the 'Taiwan' complex, a building facilitating different shops and activities. Also, another attraction is the fountain. During these years other small parks were build in neighborhoods inside the city. In 1971 the Zoological Zoo Park was built and in 1972 the Botanic Park [tirana.al, 2016], built near the Artificial Lake Park.

After 1990's, every park had a different story with buildings that were built with permit or not. Artificial Lake Park used to be bigger, but the outskirts of the park were used to build new apartment blocks. Smaller parks inside the neighborhoods were mostly destroyed. In 2000, approximately 130 buildings were destroyed from 'Rinia' Park and the park was replanted and returned to the city. Even the Botanic Park was mainly destroyed after 2000's, with new apartment blocks and roads built in the area of the park. Today we are trying to reverse the actions that we did in the past 25 years, with new parks being built in the city outskirts, but also smaller parks inside the city.

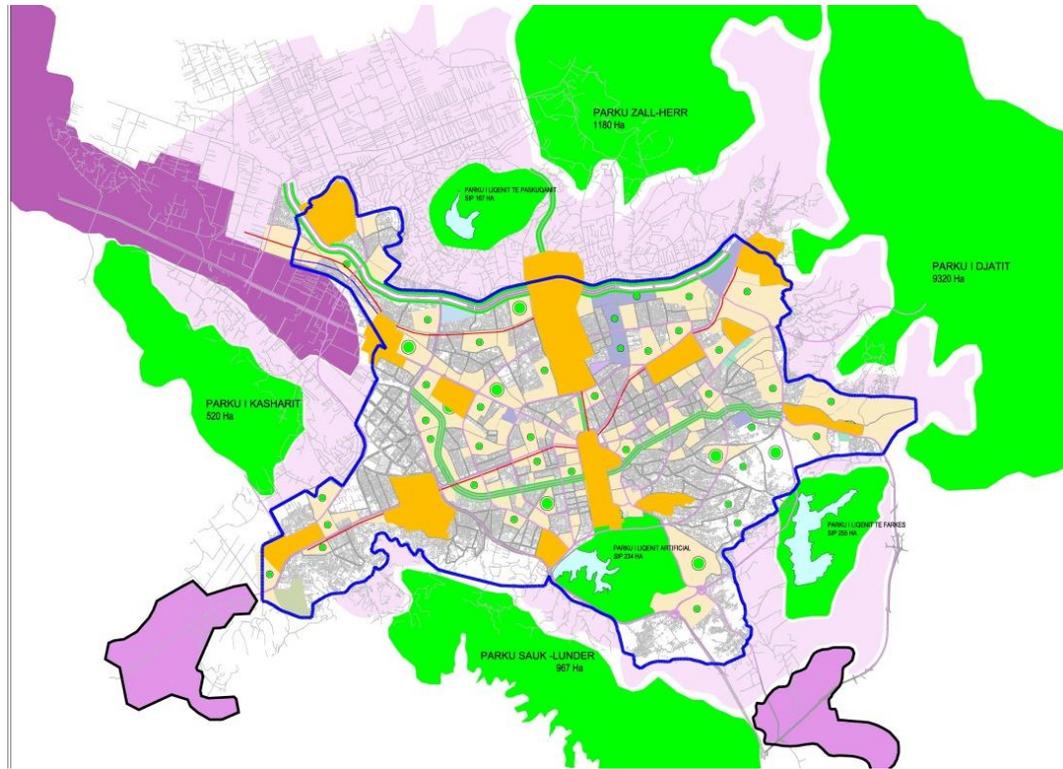


Figure 1. Green Infrastructure of Tirana [Municipality of Tirana, 2012]

The green infrastructure of Tirana would be greatly improved if we would consider on harnessing some major parks that are currently not being properly used in order to offer many benefits to the city. But still the municipality is trying new ways to improve the life quality in Tirana. For example, last year there were planted more than 10000 trees, some roads are being closed for traffic in particular occasions and in the next years two parks that are not in use because of lack of investment are planned to be revitalized.

Paskuqani Lake Park (*Fig. 1*) and Farka Lake Park (*Fig. 1*) are considered two very important strategic poles of green infrastructure of Tirana and are given priority by the government to make these areas recreational and relaxing places for the citizens of Tirana. These parks, until 2014 used to be part of different municipalities until the system of the city was changed and they are now a part of Tirana so today the need to use these areas is even bigger.

Paskuqani Lake Park has been in the attention of a lot of people in the last two years with its potential of being the second lake park of Tirana. The last mayor launched the project of extending the main boulevard of Tirana till the area of Paskuqan and creating a new city park around the lake.

1.3.2. Farka Lake Park

Farka Lake Park is located on the southeast of Tirana city center as shown in the map provided by the Municipality of Tirana (Fig.2). This park has a surface of approx. 255 hectares (Fig. 2) and a bigger lake than Paskuqani Park, with an area of approximately 80 hectares.



Figure 2. Tirana map showing the relation of the lake with the city [Municipality of Tirana, 2012]

This area landmark is the damn of the lake that has also served as a kind of a resting area. Another good feature of this site is a newly build promenade with a length of 760 meters, which goes along the lake. It has a distance of 9.6 km from the city center and a distance of 1.8 km from the big ring of Tirana that is being built and will pass near the lake borders. There are two main types of trees that grow in this area: olives (*Fig. 3*) and fig trees (*Fig. 4*), but also there are other trees in smaller quantities like European Acacia (*Fig. 5*) and other fruits and decorative trees planted during the years by municipality or individuals. The lake has a rich biodiversity and it is a habitat of some indigenous fishes. It has clean water without urban wastes. This site has many opportunities for different activities as on ground and water [aprtirana.al, 2015].



Figure 3. Olive tree (left)

Figure 4. Fig tree (center)

Figure 5. European Acacia tree (right)

1.4. Unique Aspect

The aim of this research work is to develop a landscape strategy that can foster the development of the, currently remote, green spaces around Farka Lake. The particularity of this project consists on the thorough research and analysis of the actual urban, social, economic and political conditions, which will help developing a platform for understanding how such spaces are defined in Tirana. This thesis will firstly attempt to create a theoretical understanding of the issues affecting the urban context and then it will deliver a practical project, which will materialize the theoretical strategy developed through the research.

1.5. Impact

Because of not having a development plan for these parks, for many years they have been dead areas not bringing any good to the city despite their big potential.

This project can have a big impact in the development of the areas around these parks and in their economy, bringing private investments in the area and daily visitors from other parts of the city. This investments and visitors will bring more incomes for the municipality and thus more investments from the state for these areas, which are more than needed in these informal areas, but even more incomes for the people who live in these neighbourhoods, which can be employed in the private or state sector. So the benefits of this research will be enormous in the future if this research will lead to a project to develop these areas.

CHAPTER 2

MATERIALS AND METHODS

2.1. Data Collection

The data collection will start with literature review. Firstly, the books will be chosen from libraries and then an online research will be done for finding literature materials like online books, reports, articles, etc. At this stage, from the library of Epoka University there were chosen these books: 'Drawing the ground, landscape urbanism today: the work of Palmbout Urban Landscapes' ; 'Representing landscape architecture' ; 'The landscape urbanism reader' ; 'Form and fabric in landscape architecture: a visual introduction' ;'Green Infrastructure: A Landscape Approach'. From the online research, some of the collected materials are the article 'The Best Way to Combine a Sewage System With a Landscape Design' by Eleni Tsirintani, the book 'Landscape Planning' edited by Murat Ozyavuz, etc.

The next step is continuing with data gathering, but it will be more relevant with the chosen topic, thus the main aim in this step is finding other publications, maps, regulations, aerial photographs and ortophotos, projects or regulatory plans in municipality offices that are responsible for the site development. Maps of Tirana in AutoCAD format were provided from one of the Supervisors, aerial maps were taken from Google Earth and topographical maps and ortophotos of Tirana were provided from the webpage of State Authority for Geospatial Information [geoportal.asig.gov.al, 2015].

Next step will be visiting the sites and judging the different opportunities that every site offers. An on-site survey it is very important and making a Strengths, Weaknesses,

Opportunities and Threats analysis will give an important help during the process. It was important to observe and collect everything that it might be needed for the following months of the job, like photographs that showed different aspects of the site such as landscape levels, tree types and location, promenade, dam, etc.

2.2. Study Area Analysis

Analysis process will have 3 stages.

1. The first stage will be analyzing the area of Farka and to show the main points of interest in this area.
2. The second stage will be finding and dividing the site in different typologies of land uses that all together will provide a land use map of the site, based on CORINE Land Cover directives [epa.ie, 2012]. Calculations of the land surfaces and percenteges of every typology will be shown at the end of this stage. CORINE is a programme initiated in 1985 by the European Commission, aimed at gathering information relating to the environment on certain priority topics for the European Union (air, water, soil, land cover, etc.) [epa.ie, 2012]. One of these is an inventory of land cover, divided in 44 classes [eea.europa.eu, 2016]. Taking in consideration these divisions, there will be 11 categories that will be taken from CORINE inventory on land cover.
 - Lawn and pastures
 - Arable land with irrigation
 - Urban Fabric
 - Annual crops associated with permament crops
 - Shrubs

- Moors and heathland
- Olive grooves
- Fruit trees
- Agriculture with significant area of natural vegetation
- Road system
- Extraction of material

3. The third stage of the analysis will be deciding on the intervention zone for the project and also from the earlier typology map from stage two, identification of different typologies and calculation of their surfaces and percentages will be done.

2.3. Proposal

The proposal will consist on a recreational landscape project that will transform the area around the lake in a big park. According to land usage and terrain analyses, it will be developed a strategy that will spread different activities around the perimeter of the lake. This strategy plan will have approx. 28 different interventions and activites. These proposals were generated based on city needs, similar case studies and study area properties. Another feature of the project will be multiplying the number of trees located in the intervention area, because at it will be shown later on, the percentage of trees is very small and many green areas have few or no trees at all.

CHAPTER 3

3.1. Literature Review

Over the past decade landscape has emerged as a model for contemporary urbanism, one uniquely capable of describing the conditions for radically decentralized urbanization, especially in the context of complex natural environments [Walhdeim, 2006]. In the process of urbanization, rural areas near the cities became urban areas. From green areas with few buildings they now became buildings urbanized areas with few green spaces. In this process, an unnatural environment was created. With the development of urban infrastructure, at the same time, green infrastructure should be built to ensure the needed balance for a better life.

Climate changes increase the need for sustainability and development of cities. In the new industrial cities that are having a rapid growth, it is important to supply people who live in these areas with nature. Across a range of disciplines, landscape has become a lens through which the contemporary city is represented and a medium through which it is constructed [Walhdeim, 2006].

Landscape infrastructure it is a new trend within urban design and landscape architecture that is taking attention on the last years. Landscape green infrastructure can consist on parks, urban forests, wetlands, etc. It can add many benefits for the city; from adding of green spaces, re-vegetation, preventing earthquakes and erosion, ensuring communities having clean air and water, storm water can be managed in a better way, energy conservation and a livable environment for generations to come. Green infrastructure can also be designed for the needs of wildness, which is increasingly threatened by climate changes, helping wildlife habitats to expand. All these factors can improve the urban climate and the overall quality of life. As the author, Catherine Dee says:

Landscapes are for people. The design of landscape takes place in the context of people's cultural, social, political, economic and environmental needs. Landscape design is considered to be a holistic activity which attempts to integrate concerns from all of these human aspects [Dee, 2001].

Landscape infrastructure can transform urban chaos into urban attraction. According to the ASLA (American Society of Landscape Architects), this practice encompasses a quality-of-life commitment to the built environment of neighborhoods, towns and cities while also protecting and managing the natural environment, from its forests and fields to rivers and coasts [Rouse, et. al., 2013].

Except for the ecological benefits, these projects have also social and economical benefits, like: recreation, that is a part of human life, it can create jobs and business opportunities, can give a boost to economic activity, it can attract residents to the area and increase the property value and it can also reduce healthcare costs for the state. In the current economic climate, where priorities compete for scarce fiscal resources, the multifunctionality and return-on-investment principles in particular can be used to justify and build support for community green infrastructure initiatives' [Rouse et. al., 2013].

Improving landscape design and adding more green systems in the cities affects immediately people's life. Urban residents near these areas will be more intrigued to discover these green urban systems and outdoor recreation. Urban green spaces are urban areas which were once natural or semi natural ecosystems were converted urban spaces by human influence. Urban green spaces provide the connection between urban and nature. In this context, green areas are reflections in the urban spaces of natural or near natural areas surrounding the city [Ozyavuz, 2012].

Green systems and landscape architecture in general have a close relationship with water. Like vegetation, water is varied and dynamic in appearance [Dee, 2001]. Architects have used water as an aesthetic factor, to break the monotony that was created

by the solid materials. Integration of water systems in these spaces can be done with different approaches, for example: lakes, fountains, canals, pools, ponds, waterfalls, cascades, etc. In places with moving water the air becomes full of fine mist which changes the atmosphere through sound, light, touch and taste [Dee, 2001]. Water features can reduce noise pollution and improve air quality so they have an important role in landscape architecture and they create a contrast with the land. Water environments are visually and sensorily dynamic because they reflect the sky and weather [Dee, 2001]. Lakes offer the opportunity to create a wide variety of fauna and flora, they improve climate and provide recreation spaces.

The urban parks are evolving from their recreational role to an essential component in transforming the cities. Urban green spaces like natural parks, offer physical and psychological benefits. Parks today should not only be a place to connect with nature but should also be social and cultural exchange places. In conceptualizing a more organic, fluid urbanism, ecology itself becomes an extremely useful lens through which to analyze and project alternative urban future [Walhdeim, 2006]. Parks can have an essential role in the city life and sometimes can even become one of the city landmarks, for example the worldwide known Central Park in New York which is an icon of the city.

3.2. Case Studies

Hornsberg Strandpark [Arkitektkontor, 2012] is a landscape project, located in Stockholm, Sweden. It is a project in the Baltic Sea that connects the water and the ground, with a curvy shoreline. The park has a distance of 700 meters and is divided into four parts. It has sitting and green areas, sunbathing decks and also showers with hot water for joggers. The project has three floating pies (*Fig. 6*) that give the visitors a feeling of floating into the water. This feature will be used also in Farka Park. It will be five floating pies, which will be distributed in different locations around the lake.

Copenhagen Harbour Bath [BIG+JDS, 2009] is a project located in Copenhagen, Denmark. It is located in Copenhagen's harbour, which is transforming from an industrial port to being a social and cultural center. This project consists on an outdoor swimming pool (*Fig. 7*) in the Baltic Sea, which is connected with the main road. The concept for this pool is that in indoor areas you have to design according to the given area but in outdoor swimming pools you have the water and you have to design the ground. Entrance is free of charge and it can accommodate up to 600 people. Based on this example, a floating pool will be installed in Farka Lake. It will have pools for two different usages. The first one will be used for entertainment and it will be an open space pool with diving places and the second one will be a professional pool.



Figure 6. Floating pies [Arkitektkontor, 2012]



Figure 7. Outdoor swimming pool [BIG+JDS, 2009]

Riverside Lunen [Landschaftsarchitekten, 2015] is a project located in the city of Lunen, Germany. This project consists in the redesigning of green spaces. It stretches between two main roads and the riverside, so the redesign of this park is considered as a connecting space. This project has a comfortable stepness path that is built following the existing contours of the land. Another intervention is the stairs (*Fig. 8*) that lead from the upper part down to the river. Architects have used softscapes to create different views and different experiences along the riverside. Taking in consideration these factors, a likewise concept will be proposed for Farka Park. There will be two zones of stairs that go to the lake and they will follow the contours of the terrain of the selected area. Another feature that will be taken as a reference from this case study will be the passage that will be built around the lake. It will also be stepness and going in accordance to the terrain, offering a pedestrian comfort.

Dong Da lakeside project [Tsirintani, 2016] is located in Qui Nhon City, Vietnam by Mia Design Studio. This project combines a new sewage system with a vivid park that stretches between the road and the lake. It is a spot preferred by young people to hang out. It has different stripes of vegetation and trees for shading. It has a curved pier that goes in the water and invites people to stand over the lake. Another intervention is the three wooden covered constructions (*Fig. 9*), which have been placed on the water and can be used for resting and relaxing near the water. Based on these wooden covered structures, there will be approx. 50 wooden decks in the proposal. They will serve the same purpose and their design will be also with wood and covered top. The site has a sloped surface so the design takes advantage of this feature and stairs have been used to arrive from the upper part from the road down to the river.



Figure 8. Stairs [Landschaftsarchitekten, 2015]



Figure 9. Wooden covered structures [Tsirintani, 2016]

Poprocany Lake Shore Redevelopment project [RS+, 2015] is located in Tychy, Poland. It is a recreation area built on the side of Poprocany Lake and it's mostly used by the inhabitants of the city to spend their free time. This place used to be an empty and unused lawn between the street and the lake before the investment. It has many different interventions such as: wooden promenade (*Fig. 10*) that is located along the lakeside, which goes in and out of the lake. The parts of the wooden promenade that go into the water are constructed with steel beams founded on reinforced concrete pile at the bottom of the lake. A promenade for pedestrian and bicycles connects the back side of the park with the water. On the promenade there are integrated openings with nets stretched over the water, to give a feeling of floating over the water. This project became very quickly a new meeting place for the inhabitants. Some of this park features will also be used in the proposal of Farka Park. The wooden promenades are going to be taken as a reference for the wooden terraces that will be built along Farka Lake, which will be also integrated with nets, same as in the case study.

Minghu Wetland Park [Turenscape, 2015] is built in Shiuchenghe River, located in Liupanshui, Guizhou, China. The river used to be highly polluted because of the heavy industries located in this city during the cold war period. The city also had a big problem with floodings. The architects had to do many interventions to return the area into optimal conditions. Firstly the existing streams were integrated into a storm-water management and purification system, and then a natural riverbank was restored to revitalize the ecology of the river. Pedestrian and bicycles paths were built on the green spaces along the waterways. These paths are connected with stepness bridges (*Fig. 11*) that connect different parts of the land on the two sides of the river. There will be two bridges in Farka Lake Park project, based on the upper example. These bridges will connect different parts of the lake, to offer the possibility to cross from one part of the lake to another, without having to go around the lake.



Figure 10. Wooden promenade [RS+, 2015]



Figure 11. Bridges [Turenscape, 2015]

CHAPTER 4

ANALYSIS

4.1. Tirana

Analysis process started with taking in consideration a partial plan of Tirana, which shows some of the main roads of the city, in order to give a first understanding on how Farka area is connected with the city and how does it stands in relation with it. As we can see in the map (*Fig. 12*) there are shown the small ringroad, the big ringroad project, the city entrances, etc.

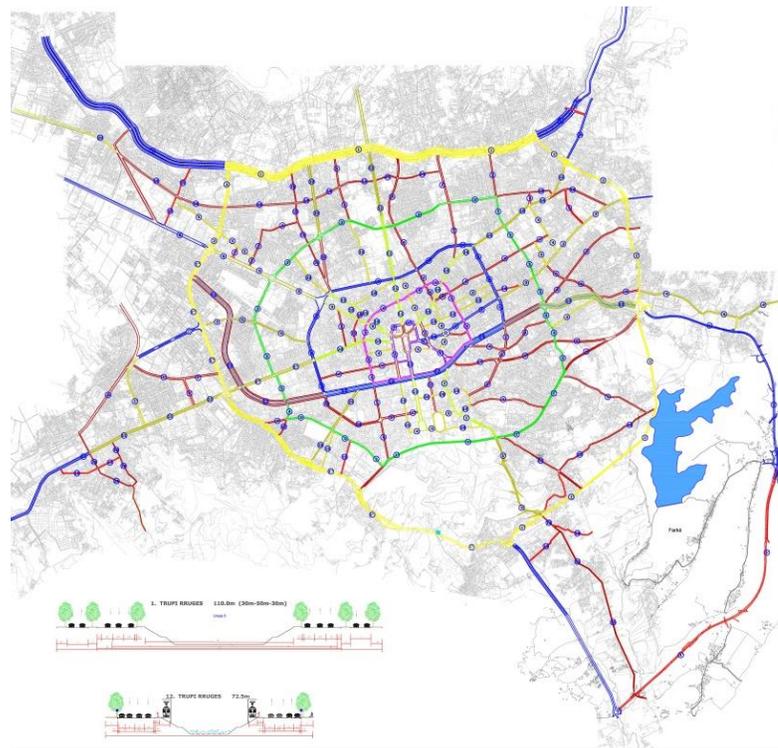


Figure 12. Tirana partial map [Municipality of Tirana, 2012]

4.2. The Lake of Farka

The other step was to select an area around of Farka Lake, and the chosen area from the AutoCAD map of Tirana was a square of approx. 12 km² that included the lake and most of the areas of Farka. This area is mostly perceived as an informal area, as most of the areas around the lake have been occupied by individuals during years and they have built with private homes and without any order except of the main roads as an indicator for the construction of these houses. It was needed to update the map, to check every building and road with google earth images and orthophotos from geoportal.asig.gov.al if they corresponded with each other. After that, places of interest of the site near the lake were shown on the updated map, such as: lake, dam, promenade, military base, mosque, high school and cemeteries (*Fig. 13*).

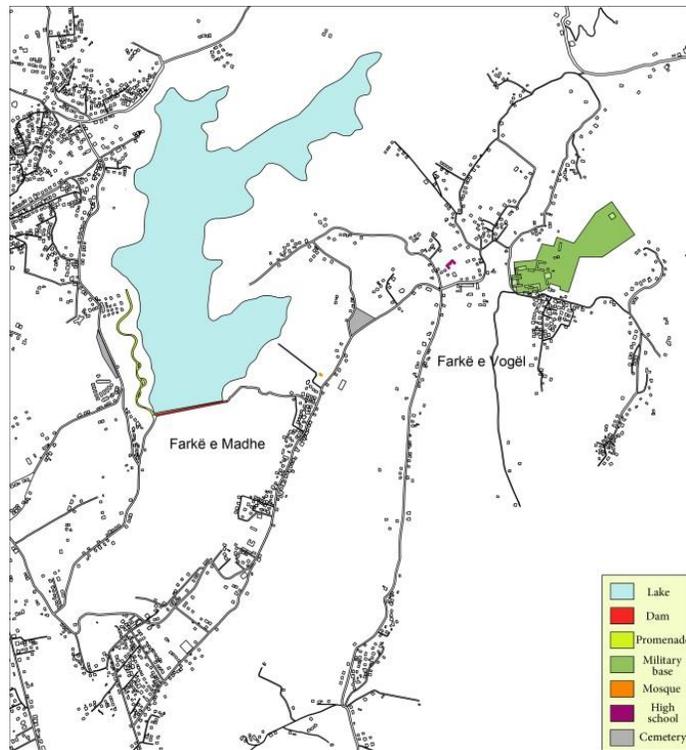


Figure 13. Updated map of Farka area with interest points.

4.3. SWOT

Table 1. Farka Swot Analysis

<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> • Water feature (lake) with clean water • Open green spaces • Existing promenade • Close to national roads • Arable land • Cultivation of olive • Cultivation of figs • Rich biodiversity • Habitat of some indigenous fish (Krap, Ballgjer, Mustak) 	<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> • It can become a big recreation park • Development of touristic activities • Development of new businesses • Can be opened many new job places • Economic growth of the area
<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> • Degradation of drainage system • Buildings inside the green areas • Not managing this natural asset • Lands near the lakeside occupied by individuals and returned private 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> • Masterplan of Farka will allow buildings to be built near the lake and so the biodiversity near the lake will be destroyed • Flooding

4.4. Physical Properties of the Study Area

Another map that should be made was the terrain map. There were no terrain maps in AutoCAD format of this area and the only terrain information that could be found was from the ortophotos from [geoportal.asig.gov.al]. It was necessary to draw above the terrain ortophoto to be able to have a terrain map in vectorial map format (*Fig. 14*). The border that was chosen for the terrain map was the first row of hills around Farka Lake Park, on the north, east and west side and the part behind the dam on south. This area has a surface of approx. 5, 1 km².

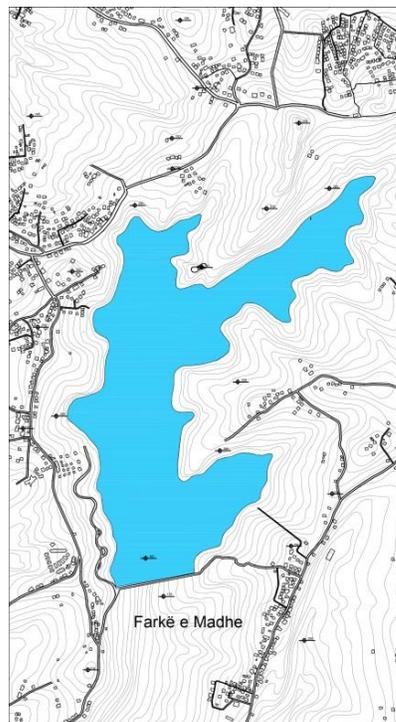


Figure 14. Terrain Map.

Having finished the terrain map it's possible to make a 3D terrain of the site to have a clearer idea of the area. This 3D terrain (*Fig. 16*) will be made in SketchUp, using the terrain in AutoCAD format and giving every contour line its specific height (*Fig. 15*). The lake altitude is 188 meters above sea level, while the highest point of the site is 256

meters and the lowest point is 144 meters above sea level. The difference of altitude from the lake to the main road that goes along the lake on its western side ranges from 40 to 50 meters. In general it is a soft terrain with the western and northern sides having a higher slope and the eastern side having a lower slope.

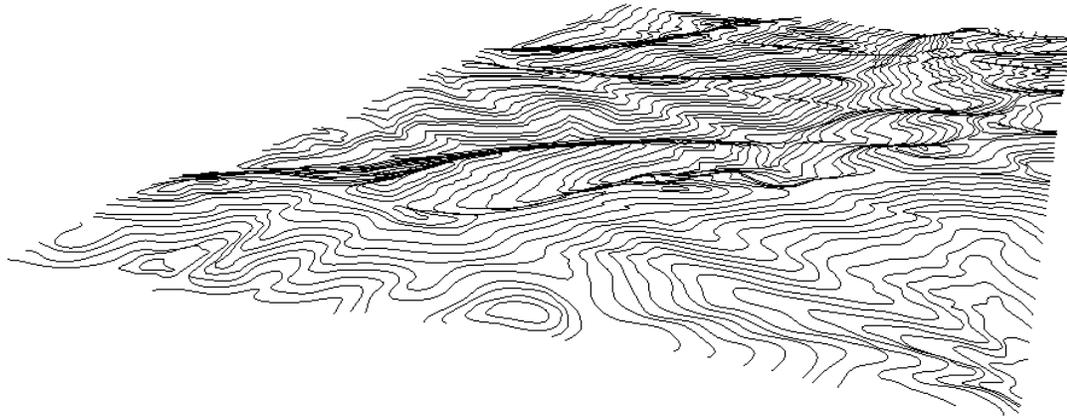


Figure 15. Contours lines

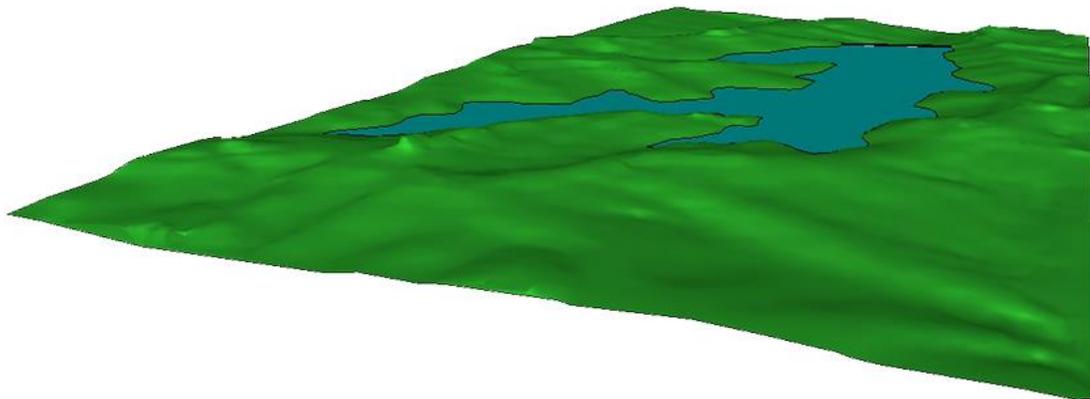


Figure 16. 3D terrain of the site

4.5. Landcover Properties of the Study Area

The map that is needed to understand the site and show the areas that could be used for the proposal is the land use map. This map is one of the most necessary maps because it will show the different usage of the areas in this site, and this map will lead to the choice of the intervention area for the proposal, based on the result of this map analysis. First step for this map was to divide every part of the site in different usages, based on CORINE Land Cover (coordination of information on the environment) which is a programme initiated in the European Union in 1985, which is available for most areas of Europe [eea.europa.eu, 2015]. The site was divided taking in consideration 14 different typologies of land usages. The second step was calculating the surfaces of every typology. The maps ranking from 1 to 14 is done taking in consideration the surface calculations, from the largest typology area to the smallest one. The colors used to present these typologies are also taken according to Corine Land Cover directives [epa.ie, 2012].

The first typology is *lawns and pastures* [epa.ie, 2012] (Fig. 17). These territories have an area of approx. 1, 6 km² and consist on open grass areas with little or no trees and other vegetation. These areas can also be used for feeding with grass animals like cows, sheeps, etc.

The second typology is *arable land with irrigation* [epa.ie, 2012] (Fig. 18). These lands occupy an area of approx. 0, 72 km². They are open lands covered with grass or small plants which can be able to be properly used to plant food because of the existing irrigation system that is necessary in the process of watering the planted varieties.

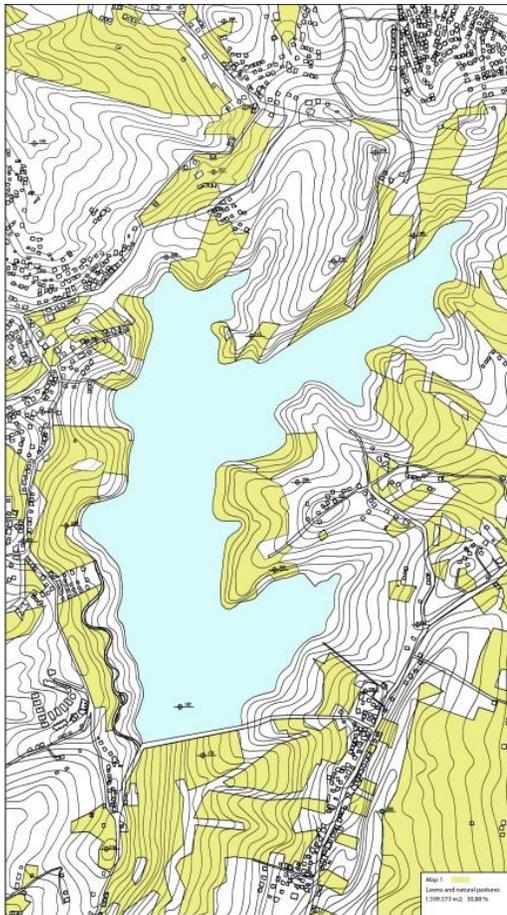


Figure 17. Lawns and pastures (left)

Figure 18. Arable land with irrigation (right)

The third typology is *urban fabric* [epa.ie, 2012] and it covers a territory with a surface of approx. 0, 59 km² (Fig. 19). These areas are mostly defined as informal areas with private homes or new private luxurious villas and complexes.

The fourth typology is *annual crops associated with permanent crops* [epa.ie, 2012] (Fig. 20). These lands cover approx. 0, 29 km² and are used for planting different vegetables and fruits and they are very productive grounds because of the good weather that characterizes Tirana and another important factor is the natural water resource.

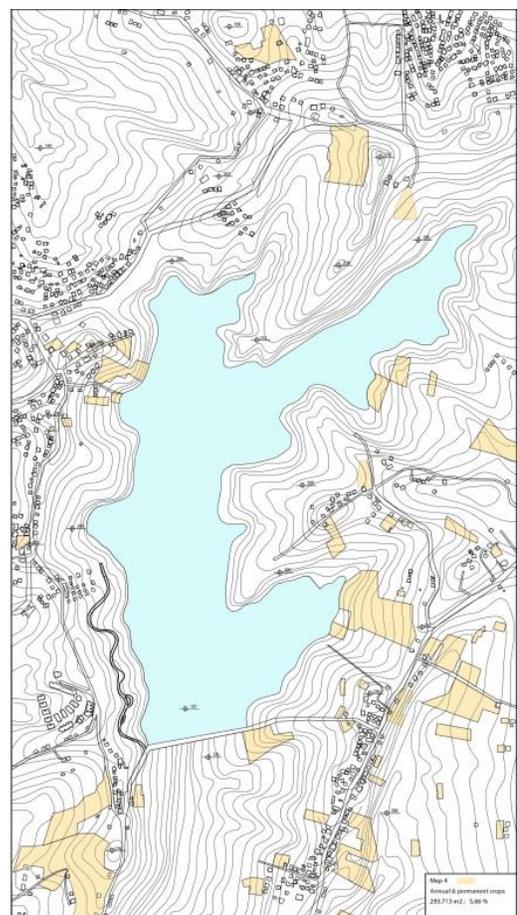


Figure 19. Urban fabric (left)

Figure 20. Annual crops associated with permanent crops (right)

The fifth typology is *shrubs* [epa.ie, 2012], which cover an area of approx. 0, 27 km² (Fig. 21). These areas are covered with small and medium height shrubs that sometimes look like a natural division of areas with different typologies.

The sixth typology is *moors and heathland* [epa.ie, 2012] (Fig. 22). This typology has a surface of approx. 0, 22 km². These areas are uncultivated hill lands covered with low woody vegetation and some parts of them can be infertile lands.



Figure 21. Shrubs (left)

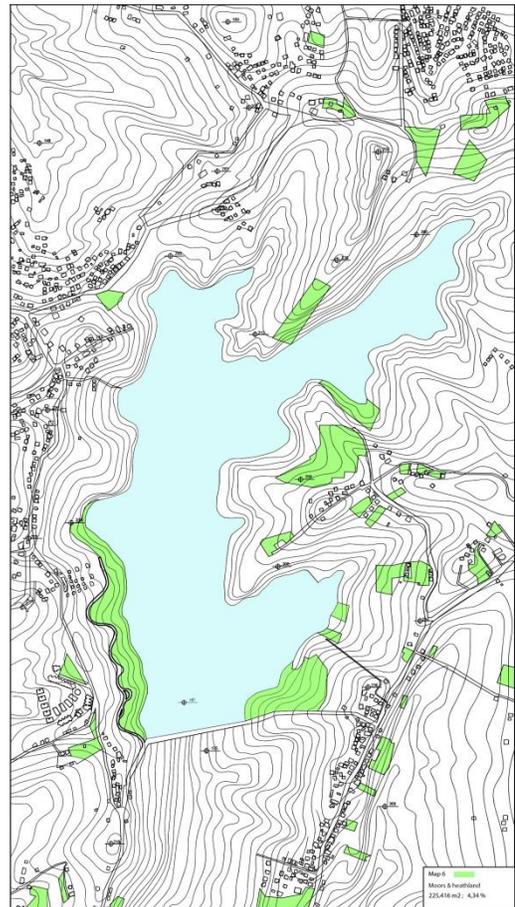


Figure 22. Moors and heathland (right)

The seventh typology is *olive groves* [epa.ie, 2012] (Fig. 23). These areas have a surface of approx. 0, 18 km² and are covered with old olive trees which are the dominating tree type of the area around Farka Lake. They are autochthonus trees that have sprouted in this area.

The eighth typology is *mixed trees* (Fig. 24), which are areas covered with a significant number of trees, ranging from olives and fig trees which are the most frequent trees in Farka, but also other trees that are found in small quantities in this area, like the European Acacia. They cover approx. 0, 16 km² of the selected site.

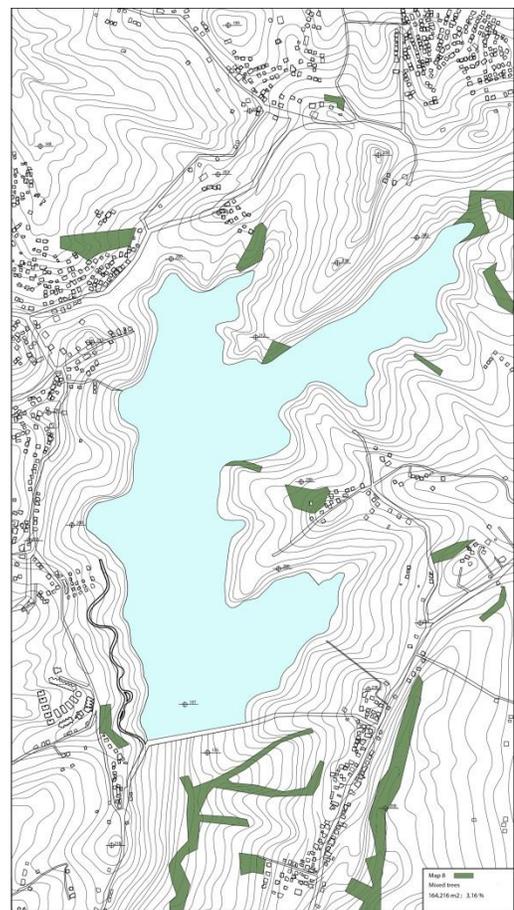
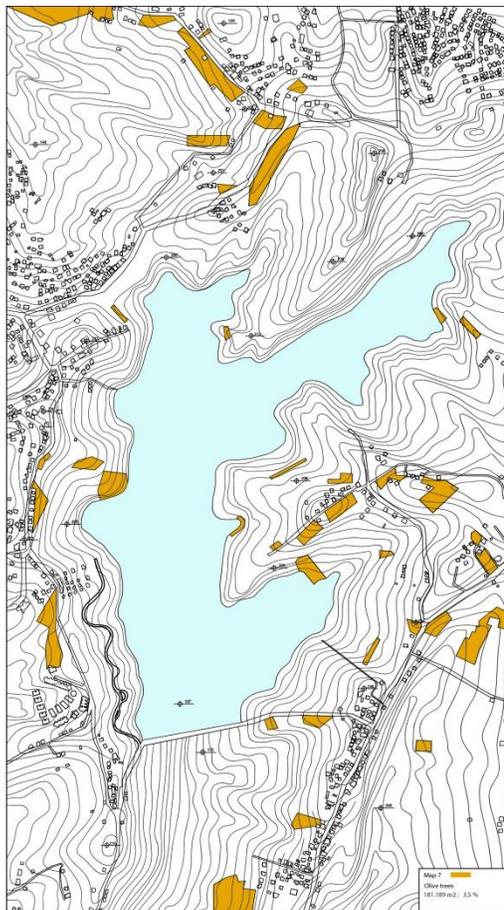


Figure 23. Olive groves (left)

Figure 24. Mixed trees (right)

The ninth typology is *fruit trees* [epa.ie, 2012] (Fig. 25). These areas are covered with fig trees. Figs are the second type of trees, after olive, which are autochthonus in this area. They cover a surface of approx. 0,058 km².

The tenth typology is *land principally occupied by agriculture with significant areas of natural vegetation* [epa.ie, 2012] (Fig. 26). This typology covers an area of approx. 0,051 km².

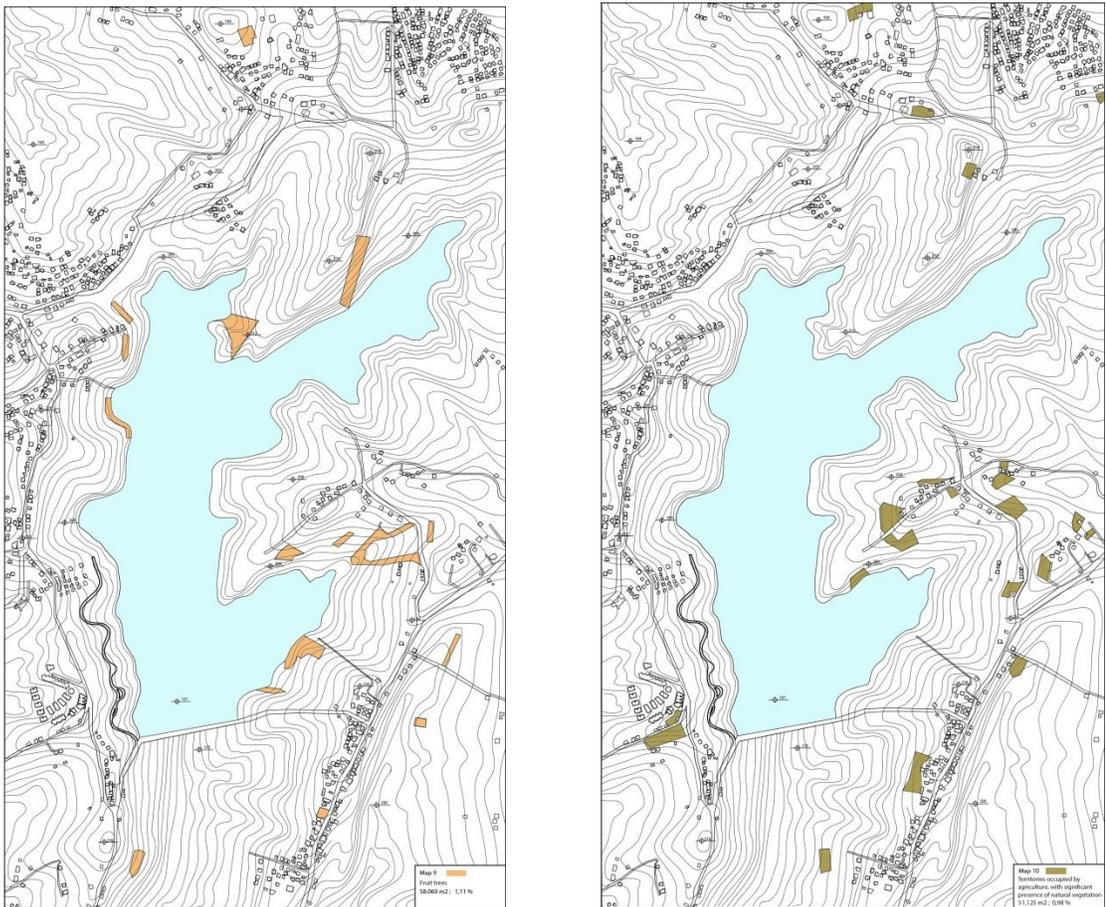


Figure 25. Fruit trees (left)

Figure 26. Land principally occupied by agriculture with significant areas of natural vegetation (right)

The eleventh typology is *road system* [epa.ie, 2012] (Fig. 27). Roads cover an area of approx. 0,035 km² in the selected site.

The twelfth, thirteenth and fourteenth typologies are *cemeteries*, *extraction of material* [epa.ie, 2012] and *greenhouse* (Fig. 28).

There are two cemeteries in this site, one being on the left side of the lake and the other on the right side, shown with a brown color. These two cemeteries have a surface of approx. 0,015 km².

There is one point of material extraction where they extract soil and gravel and it covers an area of approx. 0,008 km², shown with purple color.

There are two greenhouses in this site with a total surface of approx. 0,004 km², shown with an olive color.

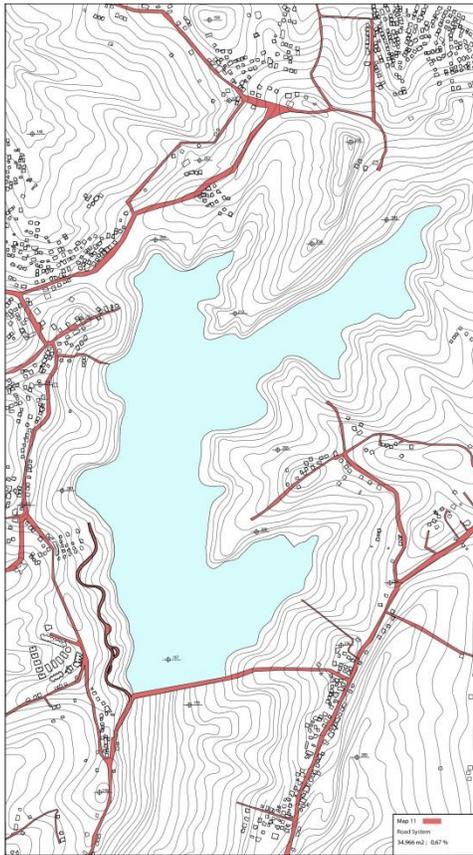


Figure 27. Road system (left)

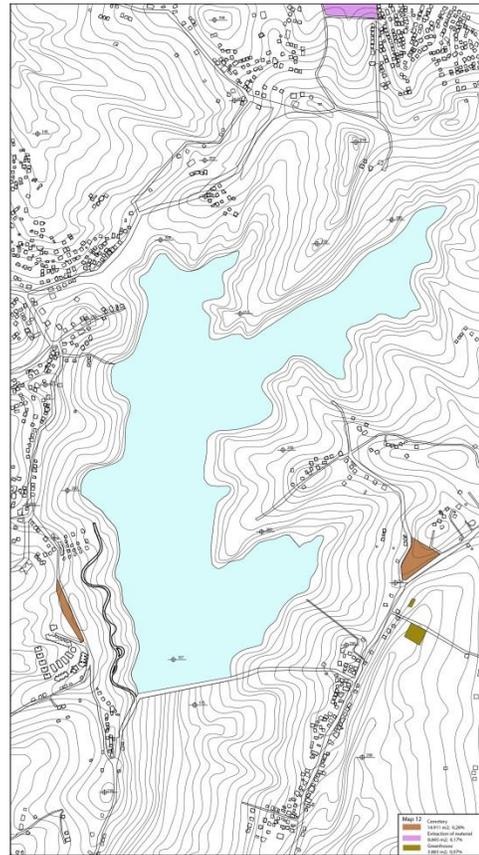


Figure 28. Cemetery; Greenhouse (right)

After having found and studies all the different typologies of the chosen site, bringing all the data together will eventually come up with a final product, the whole updated land use map of the site (*Fig. 29*).

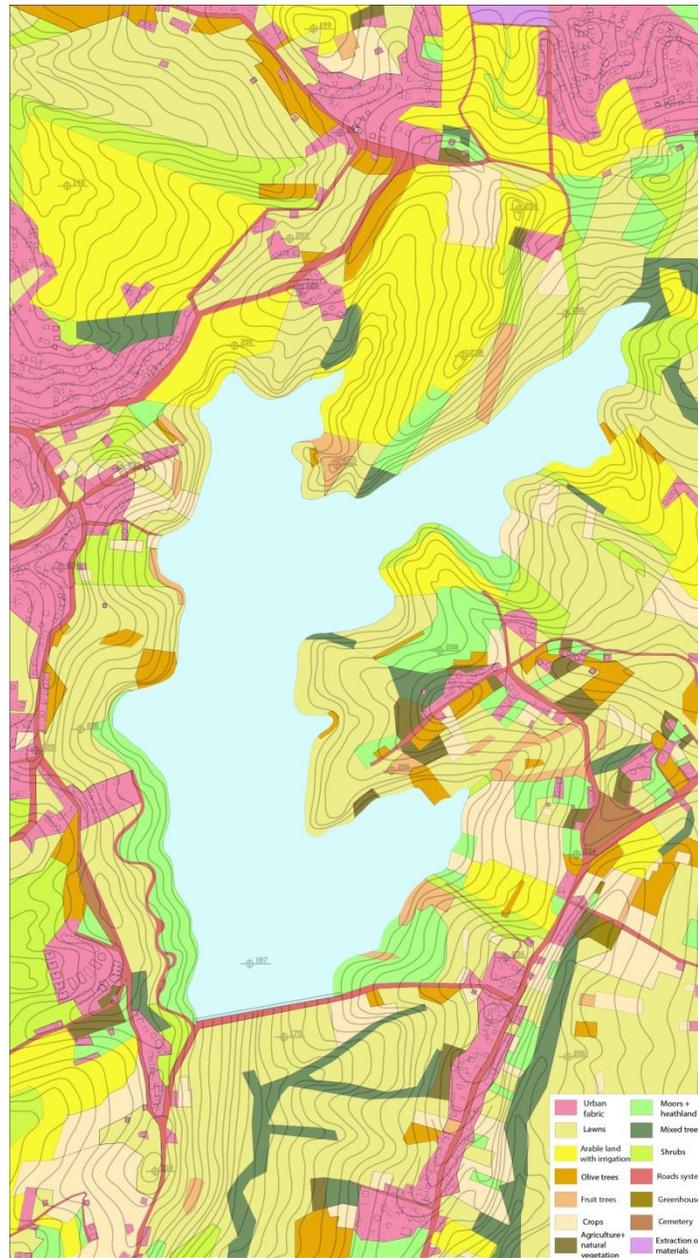


Figure 29. Site land use.

From the calculation done for every typology of the site (*Tab. 2*), putting them together in a table and having calculated the percentages for every typology which will be used making a chart (*Fig. 30*) showing the differences in surfaces of each typology will be a good feedback for the continuity of the project, because we can understand how much land and territory is suitable for the park.

Table 2. Surface and percentage results of site map typologies.

Total Area	M²	Percentage %
Lawn and pastures	1.599.373	≈ 30.88 %
Arable land with irrigation	720.517	≈ 13.88 %
Urban Fabric	588.055	≈ 11.33 %
Annual crops associated with permanent crops	293.713	≈ 5.66%
Shrubs	269.218	≈ 5.16 %
Moors and heathland	225.416	≈ 4.34%
Olive groves	181.189	≈ 3,5 %
Mixed trees	164.216	≈ 3.16 %
Fruit trees	58.060	≈ 1.11 %
Agric. with significant area of natural vegetation	51.123	≈ 0.98 %
Road system	34.966	≈ 0.67 %
Cemetery	14.991	≈ 0.28 %
Extraction of material	8.845	≈ 0.17 %
Greenhouse	3.883	≈ 0.07%

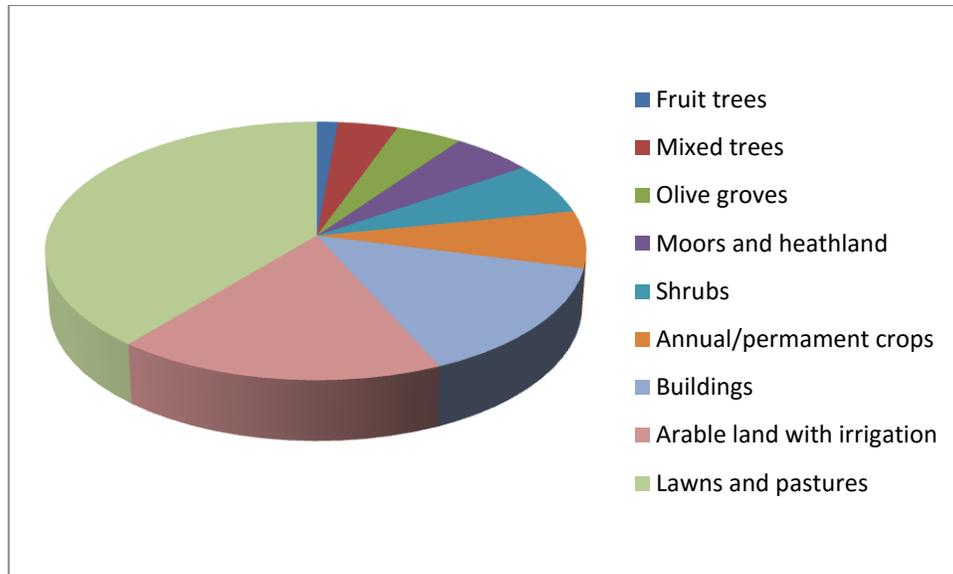


Figure 30. Site land use typologies pie chart (only typologies with more than 1%)

4.6. Intervention Area

After studying the areas around the lake and taking in consideration the important points, site terrain and typologies, a new map with an area of intervention is necessary to show the final border that can be used for the proposal. The site chosen for the proposal consists on the areas that are below the main street and excluding the buildings that are between the street and the lake with a total surface of approx. 2.23 km² (Fig. 31). These areas will be left out of the intervention zone except of one area with 17 private homes in the eastern part of the site, which will have a role in the final proposal.

4.6.1. Landcover Typologies of the Intervention Area

Another map based on Corine Land Cover will be the land use map of the intervention area. This map will be modified based on the previous land use map (Fig. 29). In this map (Fig. 32), the selected area includes only 11 typologies and has a total of approx. 2.23 km². These typologies are:

Lawns and natural pastures with a surface of approx. 0.57 km²;

Arable land with irrigation with a surface of approx. 0.3 km²;
Moors and heathland with a surface of approx. 0.14 km²;
Shrubs with a surface of approx. 0.1 km²;
Annual crops associated with permanent crops with a surface of approx. 0.1 km²;
Olive groves with a surface of approx. 0.04 km²;
Mixed trees with a surface of approx. 0.03 km²;
Fruit trees with a surface of approx. 0.3 km²;
Road system with a surface of approx. 0.2 km²;
Urban Fabric with a surface of approx. 0.1 km²;
Land principally occupied by agriculture with significant areas of natural vegetation with a surface of approx. 0.1 km².

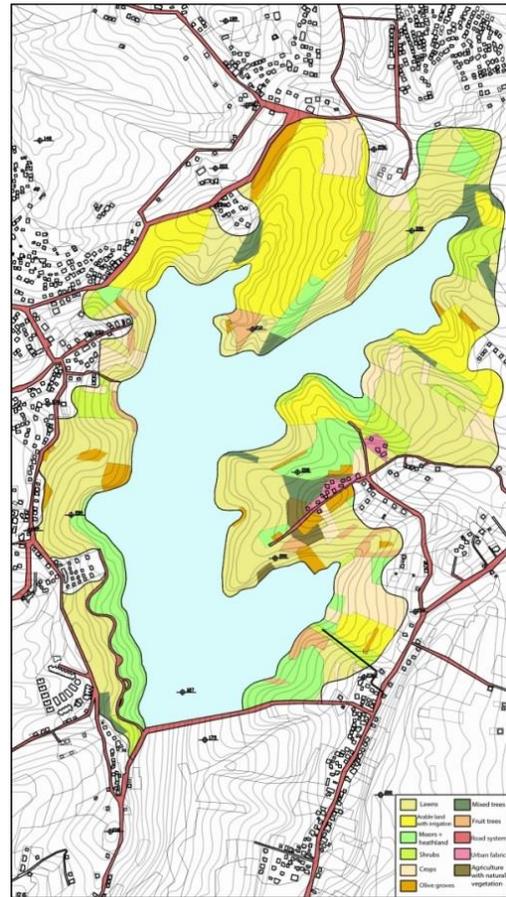
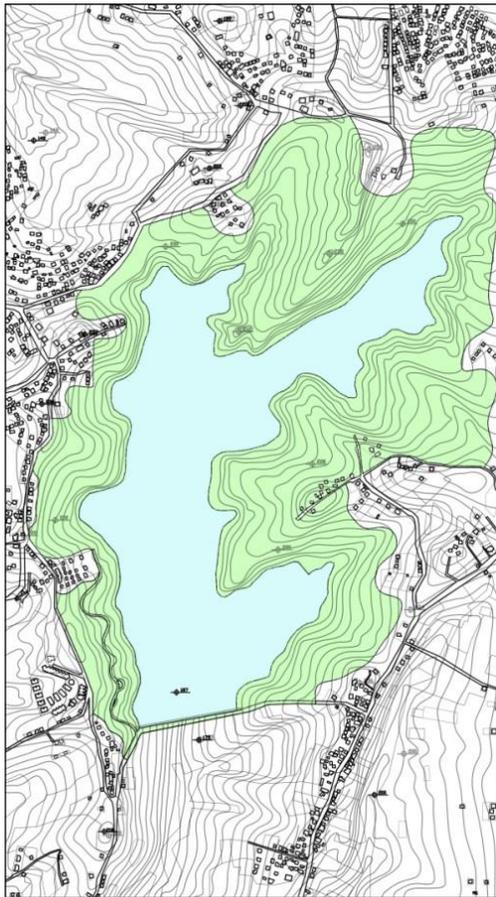


Figure 31. Intervention area (left)

Figure 32. Intervention area land use (right)

From the calculation done for every typology for the intervention area, the percentages (*Tab. 3*) and the chart (*Fig. 33*) are needed in order of having the opportunity to compare the typologies, leading in a better understanding of the intervention area.

Table 3. Surface and percentage results of intervention map typologies.

Total Area	M²	Percentage %
Lawn and pastures	566.536	≈ 25.32 %
Arable land with irrigation	309.143	≈ 13.82 %
Moors and heathland	139.222	≈ 6.2%
Shrubs	101.356	≈ 4.53%
Annual crops associated with permanent crops	100.183	≈ 4.47 %
Olive groves	42.208	≈ 1.88%
Mixed trees	37.651	≈ 1.68 %
Fruit trees	36.506	≈ 1.63 %
Road system	19.557	≈ 0.87 %
Urban fabric	11.258	≈ 0.5 %
Agric. with significant area of natural vegetation	11.032	≈ 0.49 %

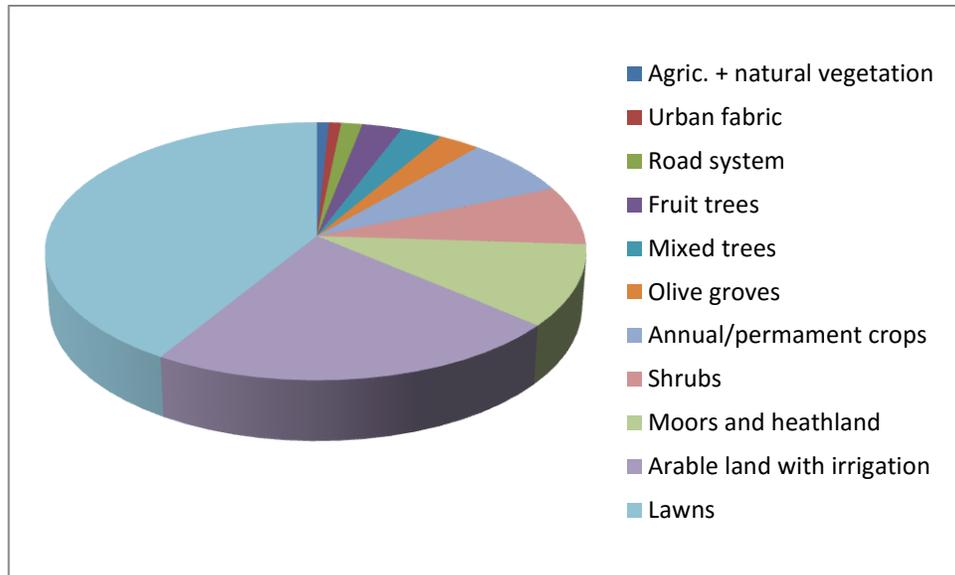


Figure 33. Intervention area land use typologies pie chart

CHAPTER 5

PROPOSAL

5.1. The Concept

The proposal will take place in the chosen intervention area and the main purpose of this proposal will be to return the area around the lake in a green urban park, with different interventions and activities. These activities will be distributed all around the perimeter of the lake will have something special to offer thus every part of the lake will be visited by visitors according to their interests. There will be approx. 28 different interventions which will take place in the proposal. These interventions have derived based on three sources (*Fig. 34*). The first one is the needs of the city of Tirana and it's about the spaces and activities that are missing or are not in proportion with the city, like green and sport areas. The second source is from the study area, which are interventions derived from the needs of the area of Farka or unexplored possibilities that can be created, taking in consideration the opportunities that this area offers. The third source are the activities and interventions from the case studies which may have similar uses in this proposal. From these interventions there can be defined approx. 23 different activities that will occur in the park. These interventions and activities will be grouped into 4 subdivisions: recreational, sports, water and economical interventions (*Tab 4*).

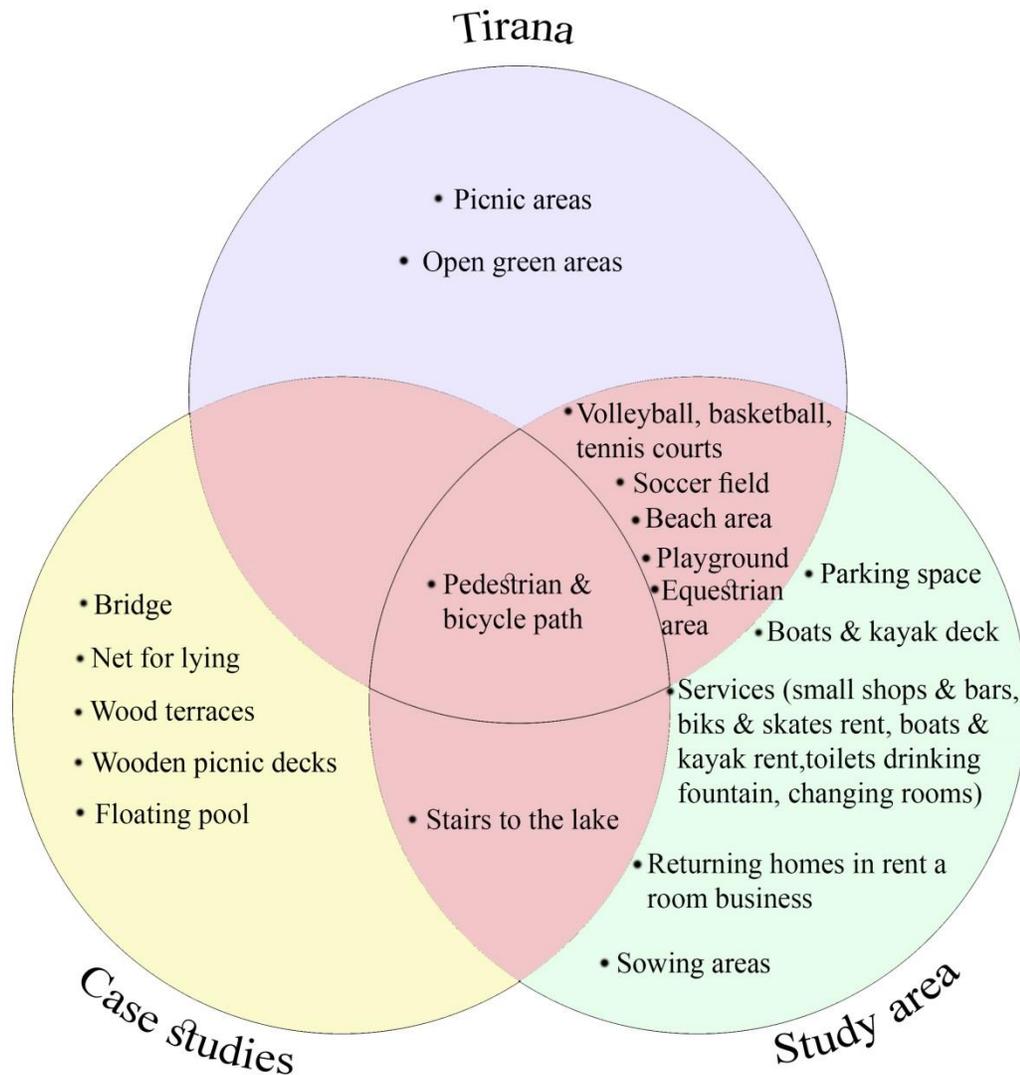


Figure 34. Intervention sources

Table 4. Interventions & activities as grouped in four categories.

Farka Park	Interventions	Activities
Recreational	<ul style="list-style-type: none"> • Pedestrian and bicycle paths • Picnic areas • Open green areas • Wooden picnic decks • Wood terraces • Net for lying • Beach area • Bridge • Stairs to the lake • Children’s playground • Services(drinking fountain,toilets, changing room, parking space) 	<ul style="list-style-type: none"> • Sunbathing • Picnic • Recreational games • Swimming • Walking
Sports	<ul style="list-style-type: none"> • Volleyball court • Soccer field • Basketball court • Tennis court • Open sports area • Equestrian area 	<ul style="list-style-type: none"> • Biking • Running • Kayaking • Volleyball • Soccer • Basketball • Tennis • Horse riding • Swimming
Water	<ul style="list-style-type: none"> • Floating pool • Floating pies • Boats & kayak dock 	<ul style="list-style-type: none"> • Swimming • Boat riding • Kayaking • Fishing
Economical	<ul style="list-style-type: none"> • Returning homes in rent a room business • Sowing area (crops) • Services(small shops & bars, bike & skates rent, boat & kayaking rent) 	<ul style="list-style-type: none"> • Rent a room • Sow your own food • Bike & skate rent • Boat & kayak rent • Small shops and bars

5.2. The Intervention

The first stage of the intervention will start with a loop like path that will go around the lake perimeter, which will be used to connect all the activities and interventions around the lake (*Fig. 35*). This path will be used by pedestrians for walking and running and also for bicycle rides around the lake. The path will have a dedicated path for runners, paved with tartan which will provide a better performance for runners and less risk for damages during running. In some parts it will have shortcuts of the main path, in order to access different interventions that are far from the main route. Another feature of this passage will be the pedestrian comfort, which means that the path will not have any steps and it will follow the contours of the terrain for a smoother path [Landschaftsarchitekten, 2015].

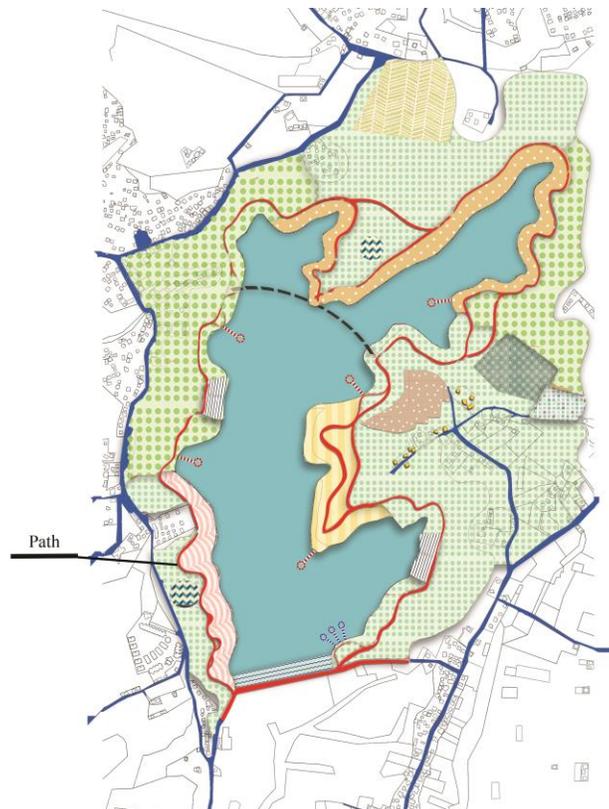


Figure 35. Loop like path

Another intervention will be wooden picnic decks [Tsirintani, 2016]. These decks will be built in different places along the lakeside (Fig. 36), between the lake and the ground and they will be built with wood materials. They will be covered on the top and open from the other sides with sitting and resting urban furnitures (Fig. 38). These decks will provide a more confidential environment as one deck will only be for up to 6 people. These decks will be placed in the two bays after the bridges, one on the north and the other one on the northeast of the site. The reason of doing so is because of the bridges shortcuts, the number of people that will pass in the northern – northern eastern part of the lake will be less than the other parts of the lake. In total there will be 50 decks.

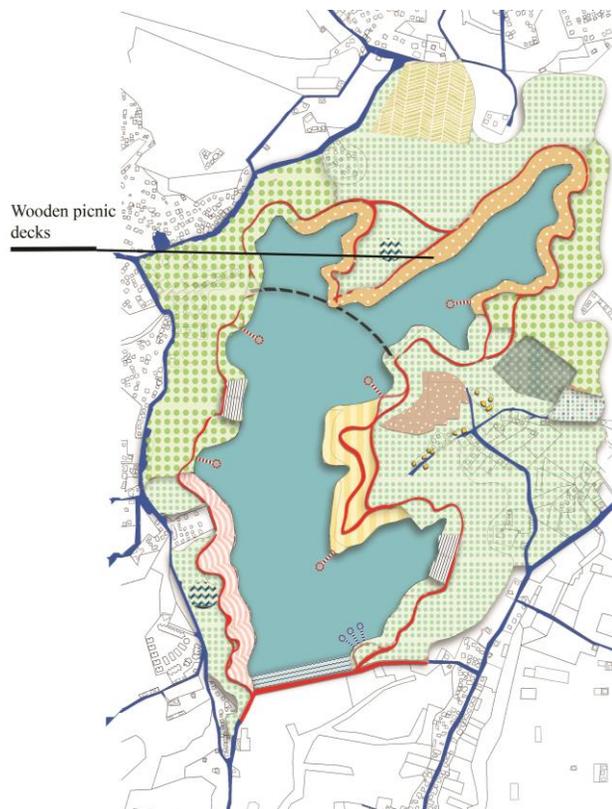


Figure 36. Wooden picnic decks location

Wood terraces [RS+, 2015] will be built between the lakeside and the ground. They will be built with piles and will have a certain height from the water. They will be located in front of an open area (*Fig. 37*) and will be mostly used as a sunbathing area and their main purpose is to provide a transition from the sunbathing area to the lake. They will be used as platforms for the ones who want to dive in the lake, without having to touch on the dirt surfaces of the lakeside (*Fig. 39*).

Between the wood terraces it will be built nets for lying [RS+, 2015]. These nets will be incorporated with the wood terraces to offer relaxing atmosphere or can be used for sunbathing and people will have a unique experience staying on the water, but with the opportunity to look it from the nets open spaces.

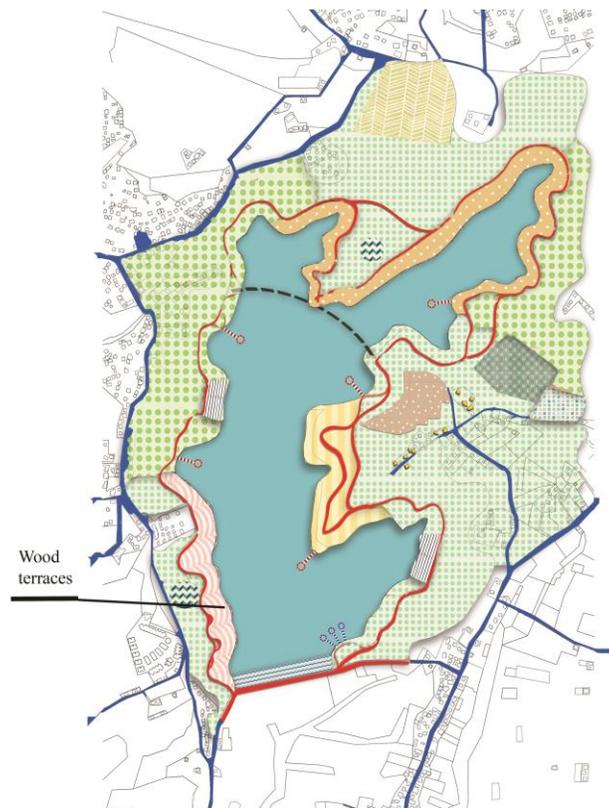


Figure 37. Wood terraces location



Figure 38. Wooden picnic decks collage



Figure 39. Wood terraces collage

Another intervention that will be mostly used during spring or summer seasons is the beach area. This area (*Fig. 40*) will be an improvised beach area with deck chairs and umbrellas, covered with sand (*Fig. 42*) that may be imported from beach sites near Tirana that have big amounts of sand as it may be Lalzit Bay and it'll be located in a lawn and pastures typology open area. This area will be exclusive only for beachgoers as it will be separated from the main path. Unlike the upper mentioned wood terraces program for people who don't want to pass through the dirt of the lake shore this area will be for people prefer to play in the lake shore and don't mind getting in the water from the sand shore.

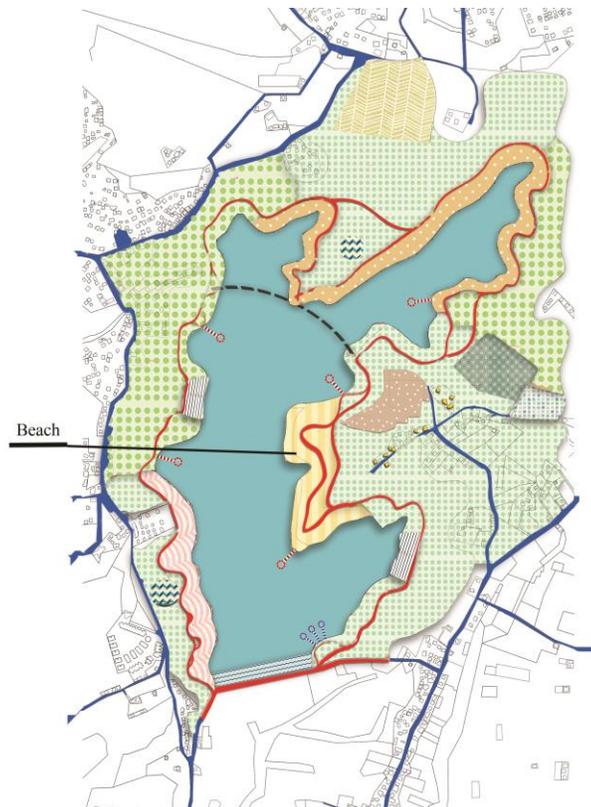


Figure 40. Beach area location

In two parts of the lake there will be two bridges (*Fig. 41*) [Turenscape, 2015] which will be stepless as they will be in continuity of the pedestrian comfort policy. They will be built by wood (*Fig. 43*) and will be connected with the main path which will offer the opportunity to cut short one part of the main path, according to their preferences. The one who want a full tour around the lake can continue the main path or the ones who don't have a preference for that part of the lake or the activities offered on that part can take a short road to arrive faster to their desired location.

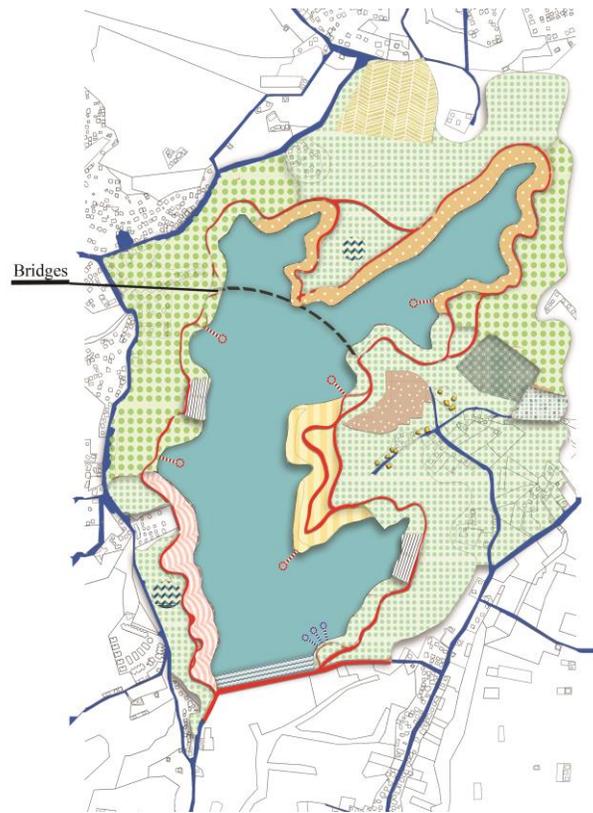


Figure 41. Bridges location



Figure 42. Beach collage

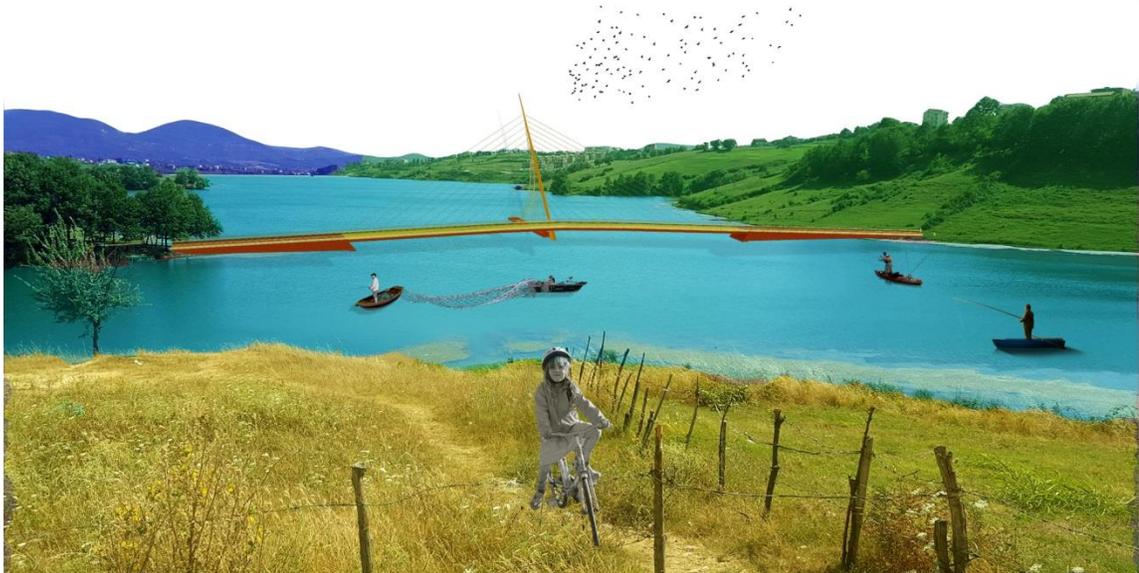


Figure 43. Bridge collage

Another feature will be stairs that lead to the lake (*Fig. 44*) [Landschaftsarchitekten, 2015]. The stairs will be built in two different locations around the lake and will be fit according to the relevant landscape. They will be made out of the current landscape, which means they will be grass stairs with some stone containers to shape them according to the topography (*Fig. 46*). They will serve as relaxing areas for listening music, reading a book or admiring the nature. These areas can also be used as open amphiteaters for cultural and social activities, classes, meetings, etc.

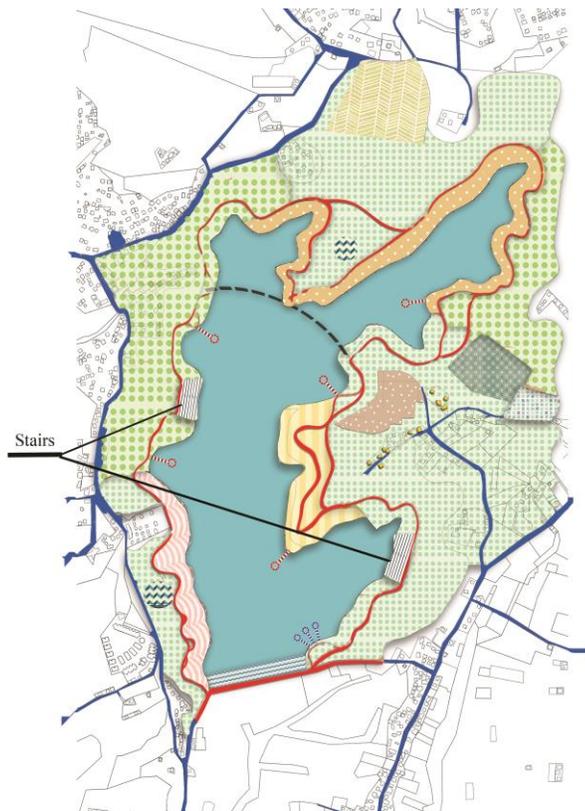


Figure 44. Stairs locations

Another intervention will be children's playgrounds (*Fig. 45*) that will be located in the open areas at the entrance of the site near the dam and the other one it will be located at the open area near the bridges. Being located in open areas, children's can be guarded in distance by their parent while they are relaxing. Some pavilions for shade and resting will be built near the playgrounds (*Fig. 47*).

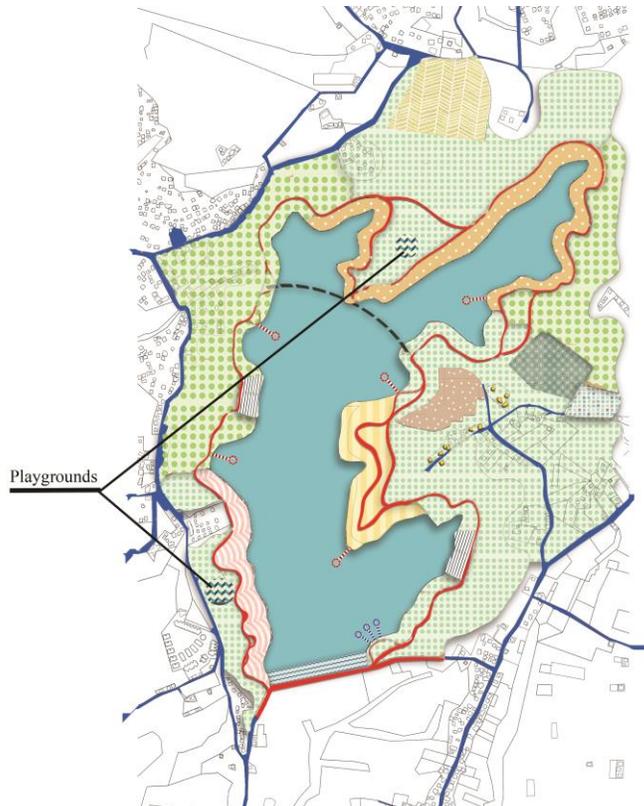


Figure 45. Playgrounds locations



Figure 46. Stairs collage



Figure 47. Playground collage

Another big area dedicated only to sport activities is the sport area, located in the eastern part of the park in a big green open area (*Fig. 48*). The main sports that are played in Tirana are soccer, volleyball, basketball and tennis, so these sports will receive a bigger attention. There will be five soccer fields, five volleyball courts, five basketball courts and seven tennis courts. Their full capacity at same time will be approx. 180 people. Exploiting the landscape properties the soccer fields and tennis courts will be covered with grass. The basketball courts need stable and gentle flooring so they will be covered with acrylic materials. The volleyball courts will be covered with beach sand, like the one that will be used for the beach area. They will be built by carving the terrain to make flat spaces. Another part of the sports area will be the big open green space that can be used by other people for other sports that are not so popular like: archery, gymnastics, athletics, wrestling, handball, table tennis, etc (*Fig. 50*).

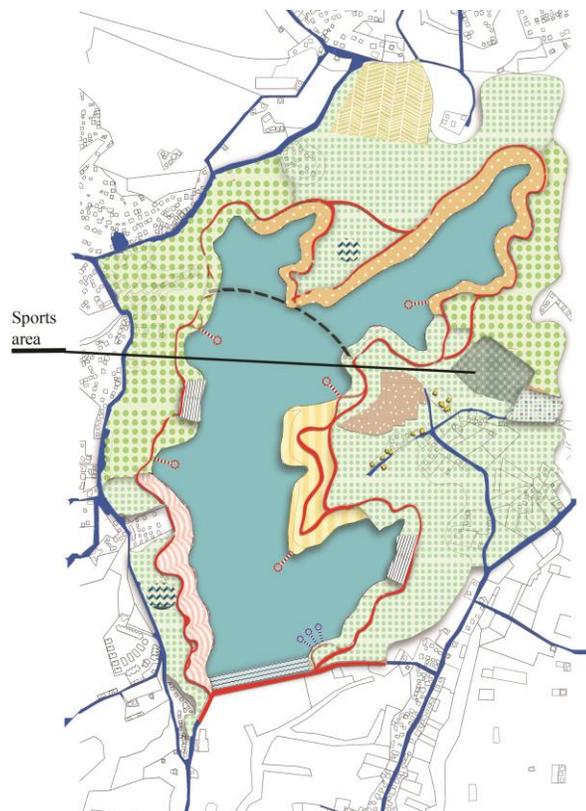


Figure 48. Sports area location

An equestrian area (*Fig. 49*) will be made near the sports area. This sport is not so popular in Tirana but the outskirts of the city or the villages close to the city have always had more interaction with this sport and a tradition at training horses. This area will be covered with river sand (*Fig. 51*), which can be easily found in the rivers near Tirana, and will be placed in a moors and heathland typology, so it won't damage any grassy areas. It will have 20 horse stalls that will be next to the road for the transportation of the horses to be easily done.

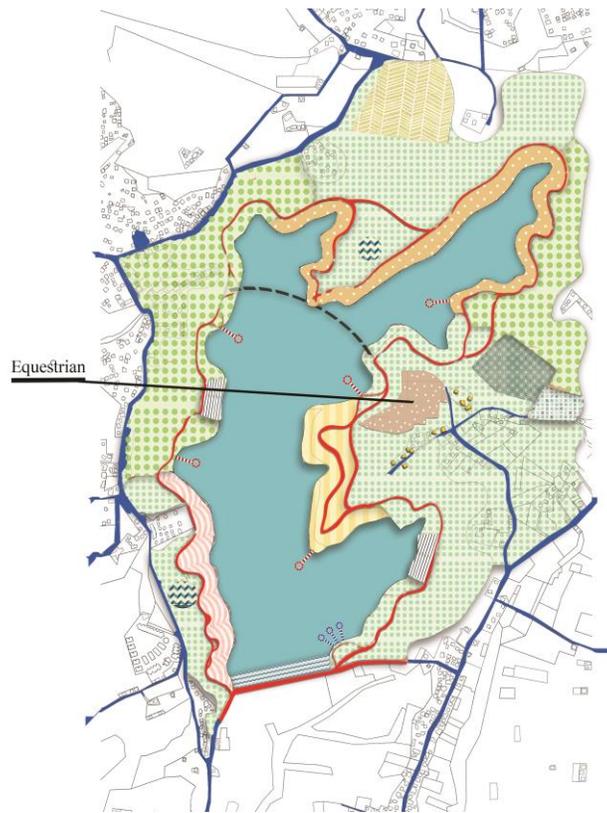


Figure 49. Equestrian area location



Figure 50. Sports area collage



Figure 51. Equestrian area collage

Floating pool [BIG+JDS, 2009] will be one of the interventions that will take place on the lake (Fig. 52). This pool will be installed next to the dam (Fig. 54) and this structure will have pools for two different usages. The first one will be used for entertainment and it will be an open space pool with diving places. It will mostly serve to the children's who can learn how to swim in a safe environment with borders around to hold on in case of emergency. The second pool will be a professional pool which will be used by the individuals who want to train or want to become professional swimmers.

Boats and kayaks dock will have its own place in the lake and it will be located near the dam (Fig. 52), so it will be close to the main street for people to drive their boats and kayak near the dock. This dock will be constructed with wood for better stability and can be used by everyone, professionals or not.

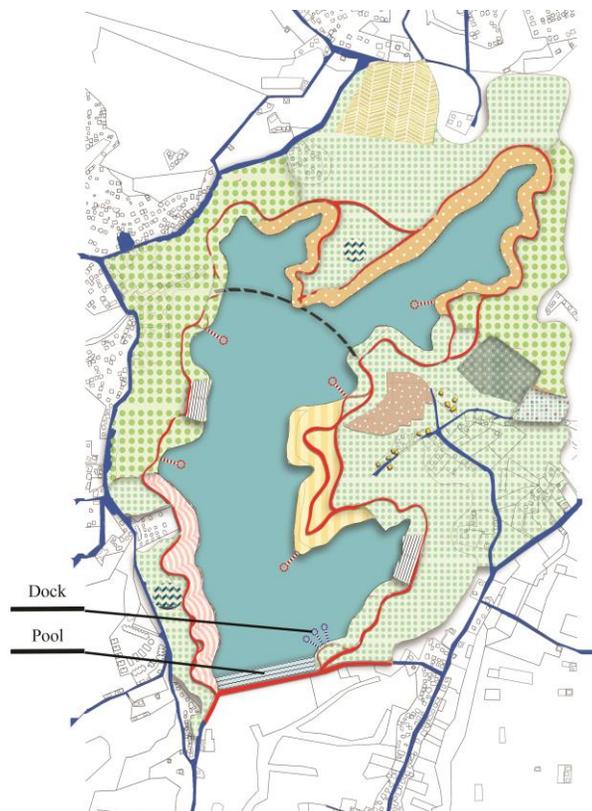


Figure 52. Floating pool & dock locations

There will be five floating pies, [Arkitektkontor, 2012] which will be spread in different location on the lake (Fig. 53). They will be connected with the land and then stretched inside the lake to create a feeling like floating in the middle of the lake (Fig. 55). These pies will have many different functions. They can be used for diving, relaxing, admiring the nature, fishing, etc.

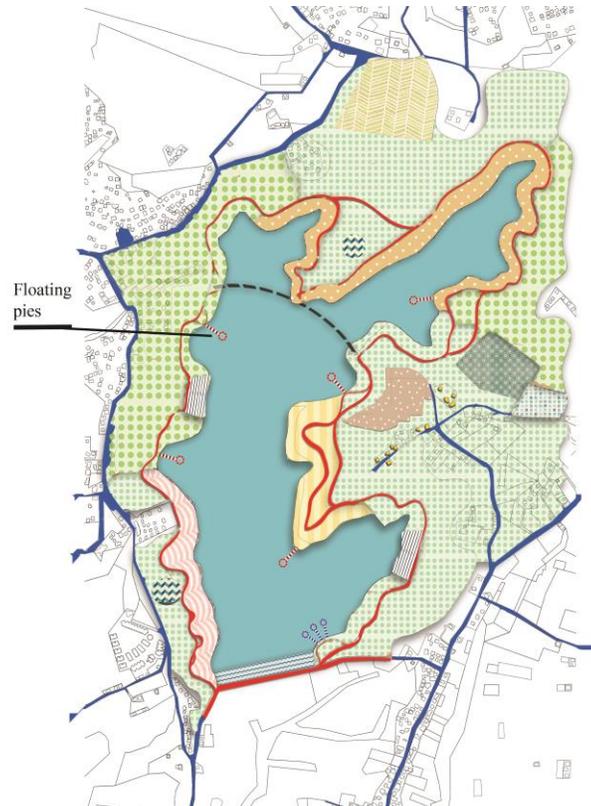


Figure 53. Floating pies location

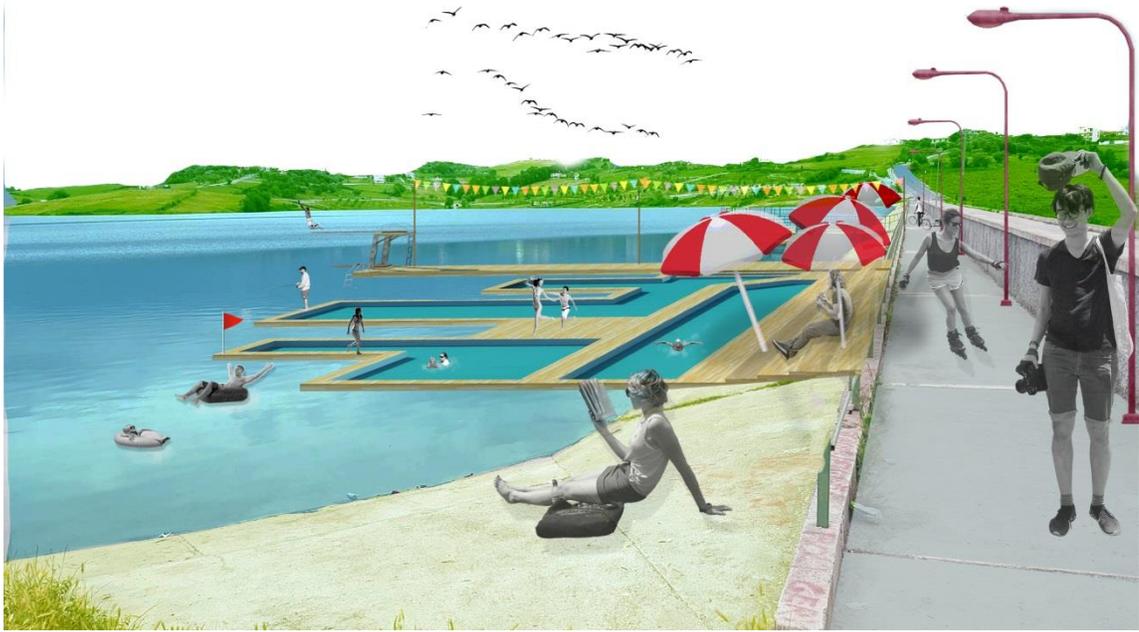


Figure 54. Floating pool collage



Figure 55. Floating pies collage

The other parts of the park will be for picnic areas which will be divided in different parts of the site (*Fig. 56*). They will be placed in lawns and pastures typology areas. These areas are mostly without trees so they will be planted with different trees for shadows and they also will help in the regeneration of the park nature. The areas dedicated to picnic and relaxing will also have natural firepits, tents will be allowed to be used from the campers who may want to spend the night in the park. There will also be other green open areas (*Fig. 56*) with fewer trees for the ones who want to enjoy the sun which will be also located along the lake in lawns and pastures typology areas. These areas will be used for relaxing and there can be different activities as: picnics, sunbathing, recreational games and other activities. These areas will also have small pavilions (*Fig. 57*) which will serve as relaxing areas, recreational activities, etc.

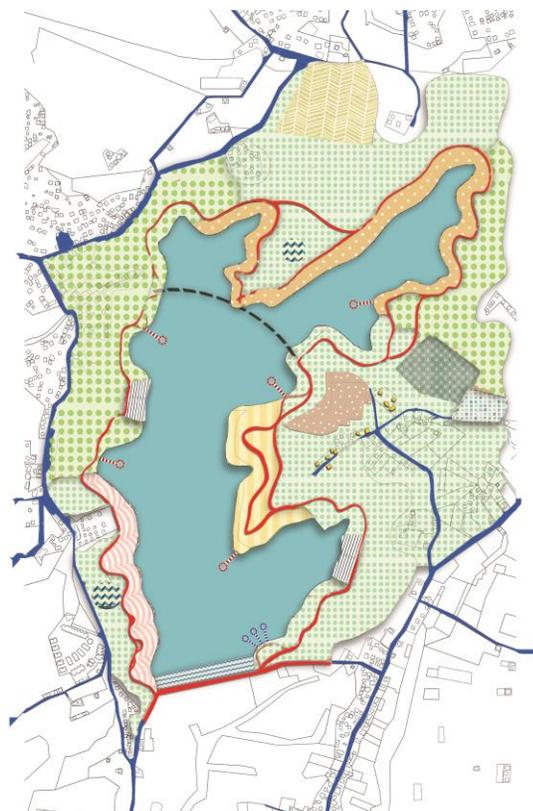


Figure 56. Picnic & green open areas

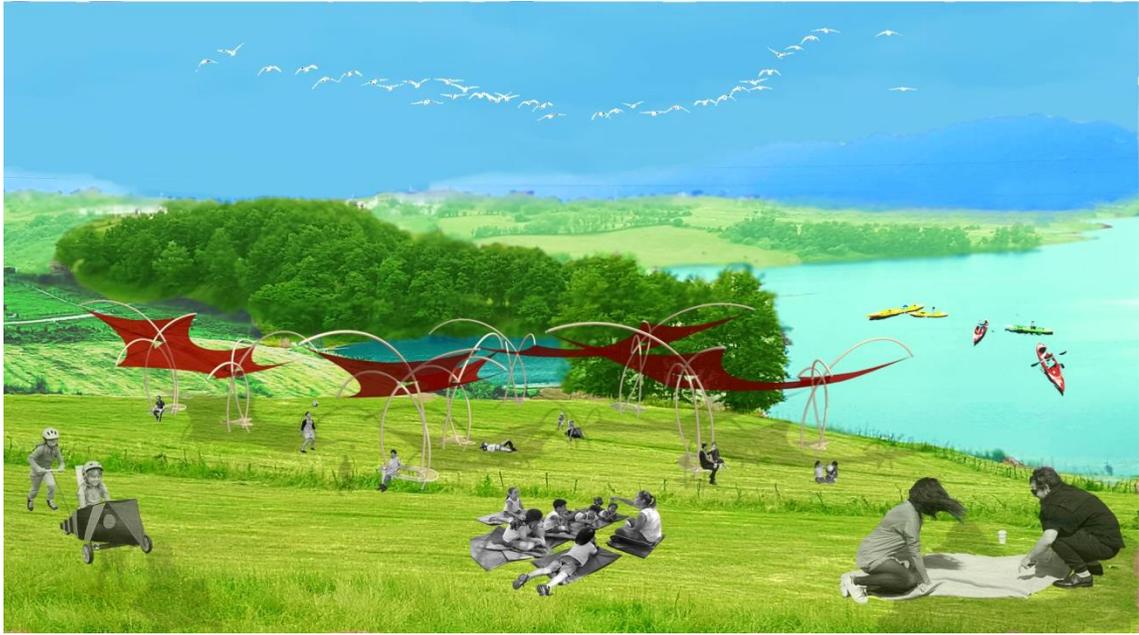


Figure 57. Picnic & green open areas collage

Another intervention will be a pilot project, which will include some of the old houses near the lake in this proposal (*Fig. 58*). There will be approx. 15 houses that will be proposed to rent one or more rooms to different people or groups of people, who want to relax and have a different day or weekend near the lake and park. This will also help somehow for the economies of these families. This project may later expand into other houses that are between the main road and the lake, based on the popularity and functionality.

Another pilot project that may expand later on and may have a little economical profit for the resident of Farka will be sowing your own plants. The land that is going to be used for this intervention (*Fig. 58*), indicated with red color, is partially used for crops and the other part of the land is arable land with irrigation. This intervention will take place on the north part of the site, facing the southern sunlight. Today, vegetable and fruit are more and more raised into modern greenhouse with growth hormones to grow faster and bigger but doing so, they are losing their taste and properties [Basha,

2013]. It is becoming harder to find and buy organic foods so people can have the opportunity to plant their own foods and to track their natural growth. They can rent a parcel in the selected intervention area from the land owner and start sowing their own food. They can also hire a farmer from that area to take care of their plants.

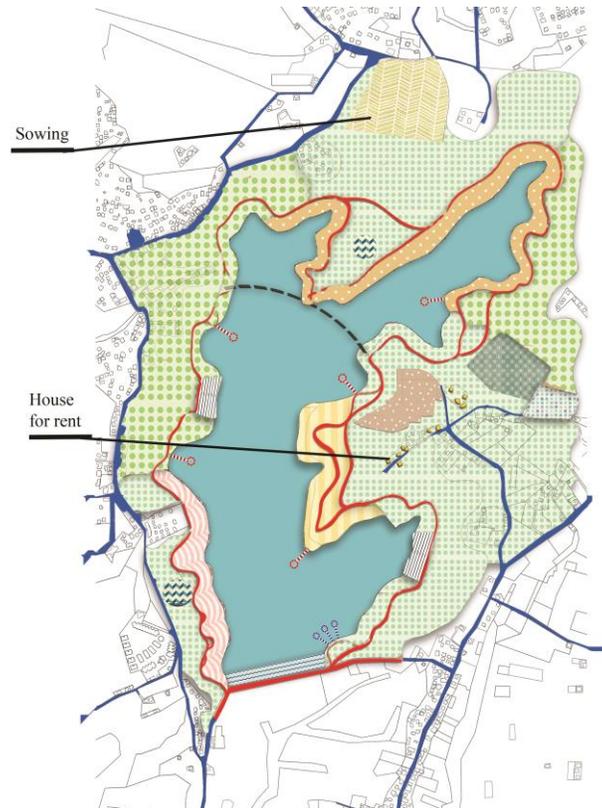


Figure 58. House for rent & sowing area locations

Services are also very important for a park. There should be different services to fulfill the needs of the visitors. Small shops for little items or take and go foods and drinks and small bars, constructed with light structure and integrated with the nature, will be in specific points of the park. These small shops and bars will be rented to the residents of Farka and to hire as employees only other residents of that area. These businesses will also give a little contribution on the improvement of the economical situation of Farka.

Bicycles and skates may be rented in different spots of the park. Boats and kayaks can be rented at the dock. Drinking fountains and portable toilets will be located all around the park. Changing rooms will be located around the lake in sunbathing areas, picnic areas, sport areas and other areas which may require these facilities.

A big parking space (*Fig. 59*) will be built next to the sports area, indicated with red color, which will provide parking space for approx. 400 vehicles, 50 motorcycles and 100 bicycles. This site was chosen for the parking space because of three factors. The first one is the big open space that was needed for this intervention; the second one is the distance with the lake and park as the parking is built behind the sports area that separates it from the rest of the park; the third reason is that this area is the closest spot of the park with the big ringroad that will pass near the site, approx. 1,5 km and all the traffic will go directly from the ringroad to the parking area and it will not create traffic for the inhabitants of Farka.

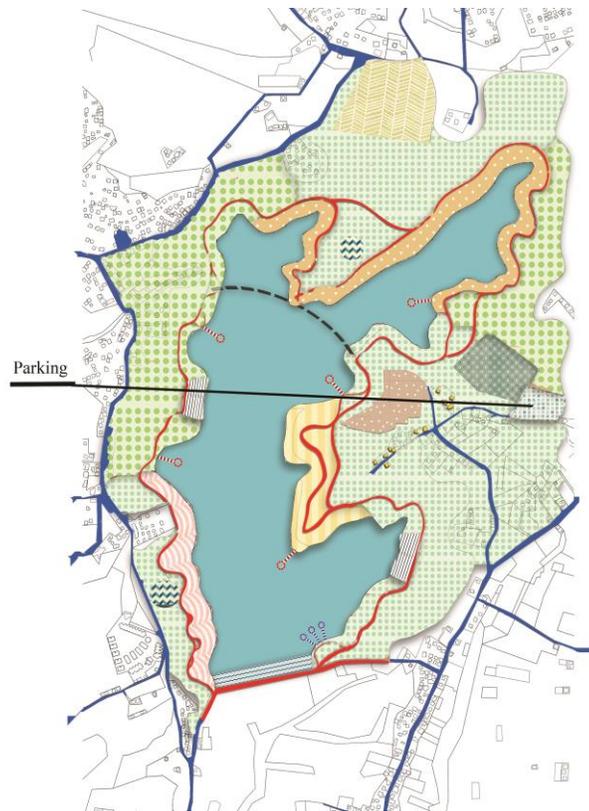


Figure 59. Parking space location

The graph below (*Fig. 60*) presents different factors of the Albanian climate such as: temperature, wet days, sunlight, daylight, etc. for every month of the year.

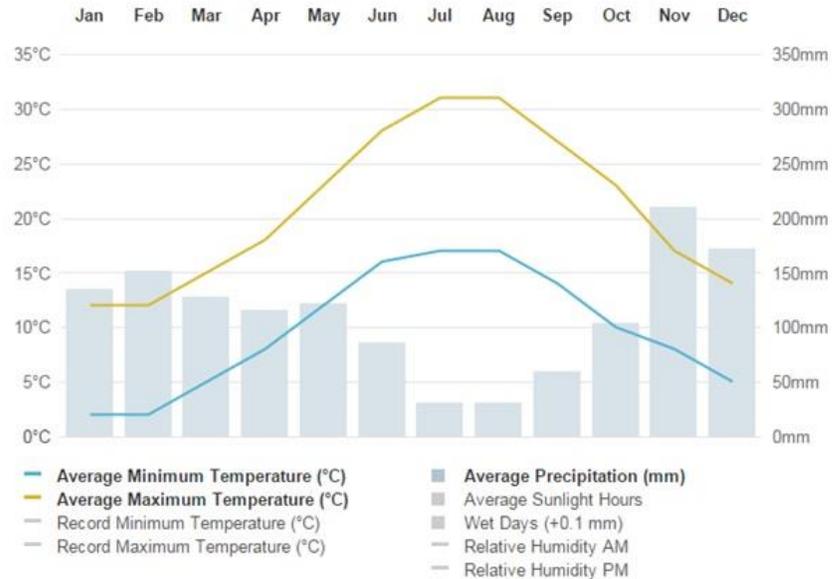


Figure 60. Tirana Climate Graph [HeliconPublishing, 2011]

The following chart (*Fig. 61*) was made based on the graph (*Fig. 60*) which presents the best periods for different interventions to be visited and the best time for the activities to be performed. As we can see, there are listed all the different activities and interventions and every one of these has it's line where it is shown the best and worst recommended time to visit or to be exercised. There are four evaluation scales, from the darkest one meaning highly recommended and ongoing, fairly recommended, recommended and the lighter color meaning not recommended. For example, intervention number 7 (*Fig. 61*) is the beach area. By taking in consideration the temperatures of Tirana, this intervention it's not recommended in January, February, March, April, November and December, it is recommended in May and October, it is fairly recommended in June and September and highly recommended in July and August.

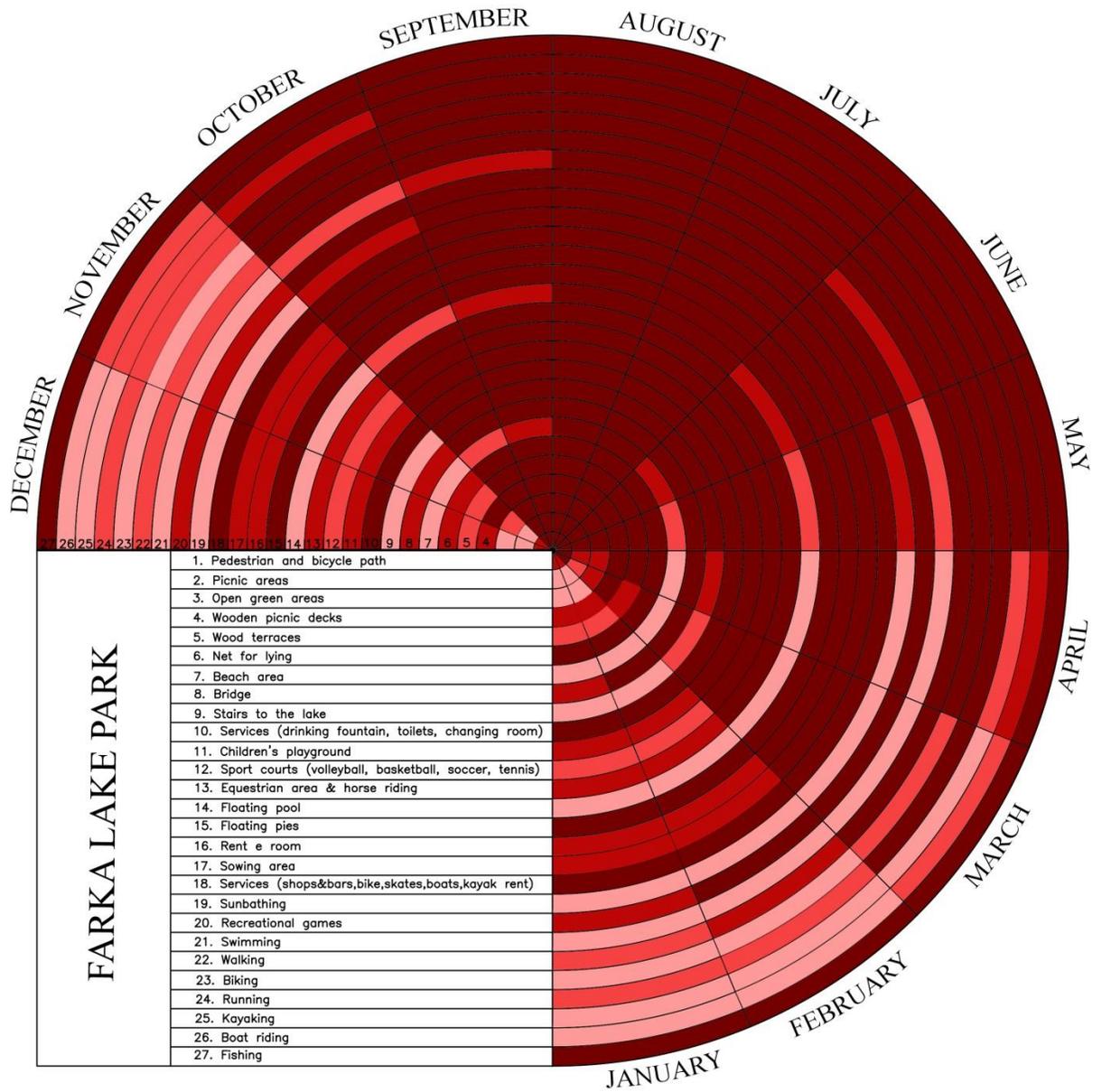


Figure 61. Interventions & activities recommended periods

CHAPTER 6

CONCLUSION

The purpose of this thesis was to make a research about green spaces around Tirana, analyzing the different spatial properties of them and resulting with a conceptual proposal of a recreational lake park. This topic was chosen taking in consideration the needs of the city of Tirana and to be coherent with the development of the city, which is based mostly on these types of green and eco-friendly projects.

After choosing the topic it was needed to choose an appropriate site. Firstly were taken in consideration 2 possible sites, Farka Lake Park and Paskuqani Lake Park. After doing some research on both of these parks, Farka Lake Park was chosen, as it had more possibilities to develop into an urban park. This decision was taken according to some different factors like, water quality, green spaces, biodiversity, road system, location, etc.

A thorough analysis process was needed. Starting with collecting books in libraries, literature review and case studies of similar projects, finding different informations for the site like maps, publications, etc. Many other factors were taken in consideration, starting from the area possibilities, terrain, settlements, SWOT analysis, etc. From these studies, there were observed many problematics within the area of Farka Park, for example some of them were: the buildings inside the green area of the park, occupied lands near the lake, lack of investments from the government, economical problematics in the area, etc. Next, it was made possible from the maps and orthophotos to divide the area in many small pieces for every existing typology and calculating every typology surfaces and percentage, which didn't exist as information. Through this process it was

made clear the area where it could be an intervention and returning those areas in a big park.

After choosing the intervention area, the interventions that were going to be proposed were generated from the necessities of the city of Tirana, the necessities of the study area and from the case studies. Tirana has many necessities when it comes to green spaces. The city has a huge absence of open green areas, recreational spaces and playgrounds. Also another problematic of the city is the absence of free sport terrains. Some necessities of the study area were: lack of parking spaces for the visitors of the park; absence of services like shops, bars and toilets; absence of a boats deck, despite the big lake that exists in this park. From the case studies some of the interventions that were found suitable for this proposal were: bridge, wood terraces with nets for lying, wooden picnic decks, floating pool, etc. These interventions were then separated in different parts of the lake, according to the typologies and terrain analysis.

All these steps resulted on a conceptual proposal about Farka Lake Park. This proposal will improve the quality of life for the residents of Farka but also for the residents of Tirana and not only. From this project it will be received three main benefits: ecological, social and economical. Increasing the number of trees will convert this park in a 'lung' for the city of Tirana. The increase of greenery will clean the air and provide more oxygen. They also provide shades and spaces for people to interact with each other. The interventions will provide different recreational areas for every person desires. Another important benefit will be the difference that this park will bring in the economy of many families and the entire Farka area in general. Some interventions inside the area of the proposal were proposed having in mind the economical aspect of the families that live in the area around the lake. Many new jobs will be opened from the state and private sector. The municipality will need people that will work on maintenance of the park; it will rent the services inside the park to different individual that will hire more workers from the area. New businesses will be opened around the park that will create more jobs

taking advantage from the number of people that will come to visit the park. All these jobs will improve substantially the economy of Farka area.

This thesis main scope was to give a solution to one of the many lakes of Tirana, so this proposal can be used as a point of reference for other studies of this type, considering the needs of Tirana for natural recreational parks and the fact that the municipality of Tirana has approx. 100 lakes and most of them are not yet being harnessed, so there are many possibilities for these types of proposals in Tirana.

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