

Site Conditions

Topographic Features

The general topographical condition of the Park Area is thoroughly flat; the gradient is $\pm 0.3\%$. For the existing park area of 250ha also, land formation is flat except some artificial undulations at Parque el Salitre and Jardín Botánico. As for the ground elevation established in the Whole Park Area, the minimum elevation is 2578m, and maximum 2582m above the sea level. Along the park area, three main watersheds are contained; these are Canal de el Salitre, Canal Río Nuevo and Canal del Río San Francisco.

Existing Vegetation

The dominant vegetation within the Project Park Area is grass. A high percentage of the area is occupied by *Pennisetum clandestinum* which is known as "kikuyu grass" of African origin. As for shrubs, *Salanum marginatum*, from Africa, and other species are established in small groups. Concerning the Whole Park Area, trees including *Eucaliptus globulus*, *Acacia melanoxylon*, *Fraxynus chinensis*, *Pinus radiata*, *Cupressus macrocarpa* and others have been introduced and are present in large numbers due to the good growing conditions.

In Jardín Botánico, approximately 150 kinds of Colombian native trees and 50 kinds of exotic trees have been planted. As the flora collection, about 4,000 species of 300 families are being cultivated.

Soil Conditions

The soil around the Project Park Area is recognized as soils on ancient Quaternary lake sediments. The soil type is generally classified as "Serie Tibaitatá". Layered material is clay deposit and has rather poor drainage.

The surface layer of approximately 0–50cm by on site observations has dark grey brown color and is slightly moist. The texture of the soil is clay or clay mud with patches of fine aggregates and some small porous spots. Many fine grass roots are contained, but organic matter is low and the pH is acid to relatively acid. This type of layer is commonly known as fairly fertile soil with fair nitrogen content and is good for cultivation.

Subsoil under the surface layer is yellow to brown red colored by clay and slightly plastic conditions. This is poorly drained and rather strongly acid.

Surface Water

Within the Project Park Area, there is no existing natural water surface, but an artificial lake and pond are located at each Parque el Lago, Parque el Salitre and Jardín Botánico. Total water surface area is approximately 7.6ha. These lakes and pond are mainly water supplied by catchment of rainfall run-off. During a drought water level is maintained by occasionally supplying freshwater. Open watershed is located behind Lote 4 next to Club de Empleados Oficiales and is utilized for the urban sewage system. Usually this canal dries up unless there is a rainfall. When there has been a long and heavy rain some lower parts of the Project Park Area show a slight ponding condition.

Ground Water

Generally it is said that the ground water level near the surface layer changes from season to season. Approximately 2.0–2.5m from the ground surface, there are clay stratum, so that ground water which originates from a rainfall accumulates on this stratum and the water level rises to 1m below the ground surface at the time of lengthy rainy seasons. However it is recognized that most ground water is located approximately 80m to 100m from the ground surface in the Park Project Area.

Meteorological Features

Bogota is located in the equatorial zone of low latitude. In general Sabana de Bogotá area has no seasons. However alternating slightly rainy and dry periods are experienced continuously all year. April to June is rather rainy and September to November is also rainy and with some thunderstorms. Every 5 to 10 years, there is frost. In general, temperature is determined by elevation above sea level.

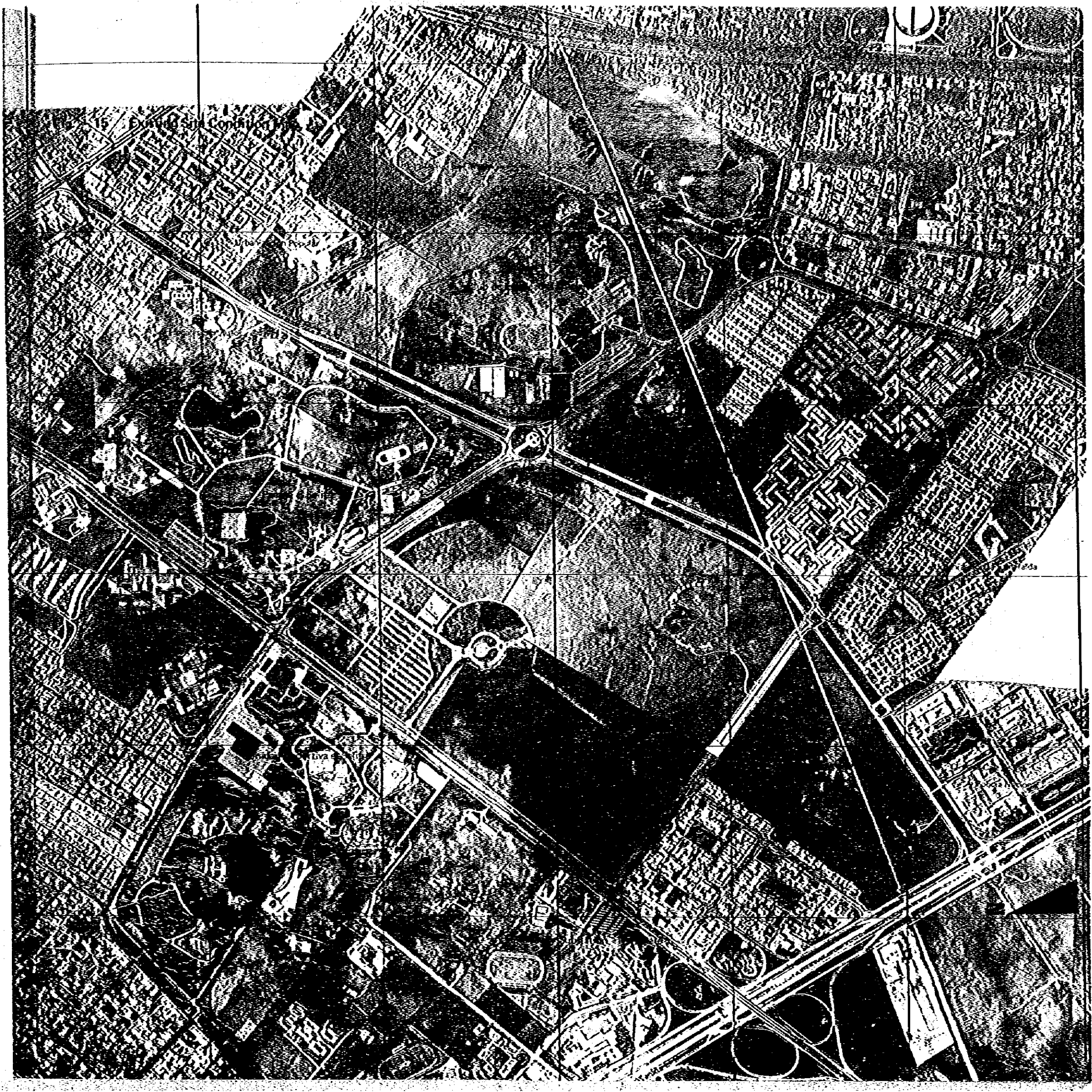
Following are the meteorological conditions in the Bogotá area in meteorological conditions. (in I.G.A.C. 1975).

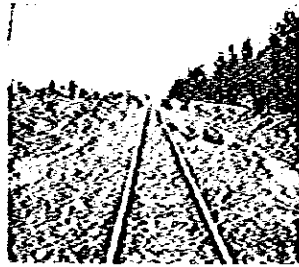
Average temperature	13.8°C
Maximum average temperature	19.3°C
Minimum average temperature	8.1°C
Absolute maximum temperature	22.5°C
Absolute minimum temperature	7.2°C
Medium relative humidity	72%
Annual rainfall	943.6mm
Number of days with rain	17 days/year
Prevailing winds	South 13% West 13% North 12% South-west 11%
Wind speed	45km/hr to 7.5km/hr

Existing fauna and flora

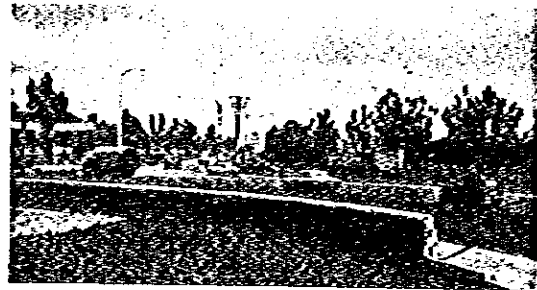
Flora in the vicinity of the Whole Park Area represents typical vegetation of Sabana de Bogotá. *Pennisetum clandestinum* takes over as the strong dominant and is usually associated with low percentage of *Trifolium repens*, *Bromus catharticus*, *Holcus lanatus*, *Poa annua* and others. *Hydrocotyle* sp. *Oxalis* sp. and etc. are sometimes present in association. As for herbaceous weeds and sub-shrubs, *Solanum marginatum*, *Solanum nigrum*, *Chenopodium ambrosioides*, *Sylibum marianum*, *Atriplex* sp. *Hipochaeris* sp and many other species are found in abandoned areas. Beside these native species, *Eucaliptus* sp, *Fraxynus chinensis*, *Acacia* spp, *Ficus* spp, *Podocarpus* spp, *Salix* spp, *Juglans neotropica*, *Pinus* spp, *Cupressus* spp, and some other species including exotic ones have been widely introduced and are growing dominant all over the Bogotá area.

As for the fauna, around the vicinity of Whole Park Area, commonly we can find many birds, rats and mice, frogs, lizards, marsupials, few fishes and insects. Especially in Jardín Botánico with its diverse planting of species and fully established natural environment, a varied faunae can be found. For example, birds include sparkling violet-ear humming-bird, band-winged nightjar, nightwork, honeycreeper, eared dove, sparrow and others. Butterflies, beetles, dragonflies, crickets, grasshoppers, honey bees and other insects are present. These fauna breed as parts of the ecosystem according to the ecological environment.





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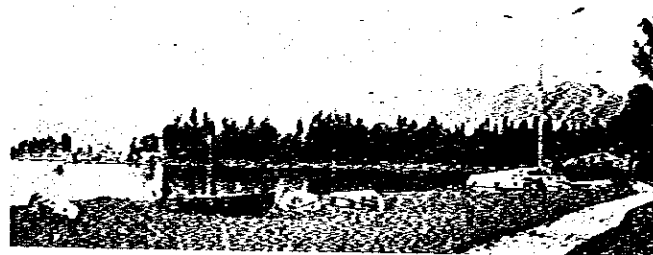
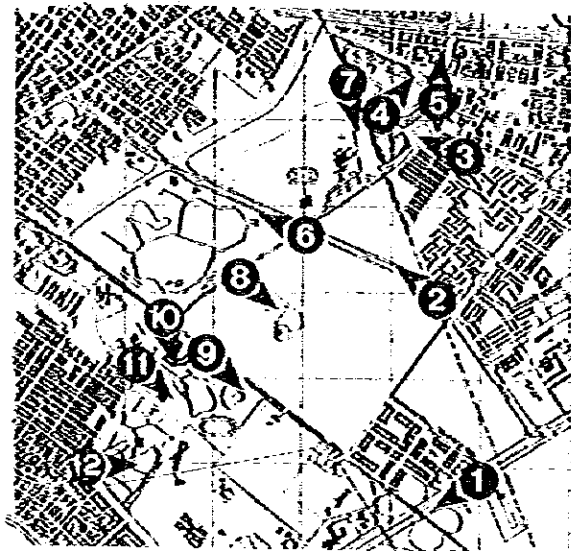
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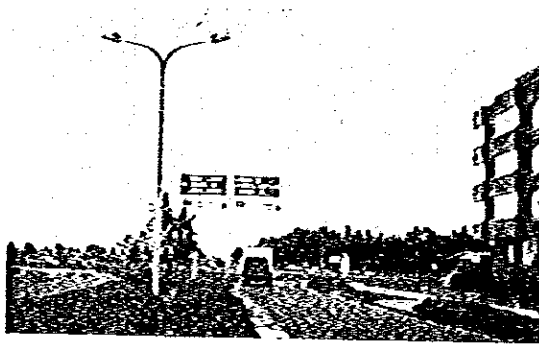
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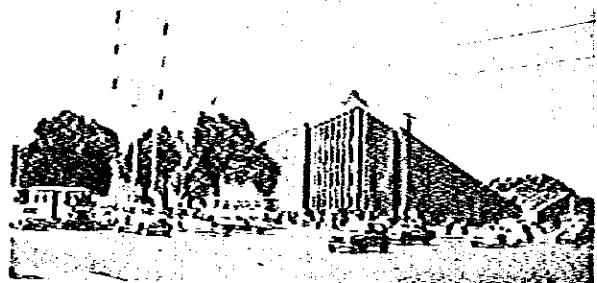
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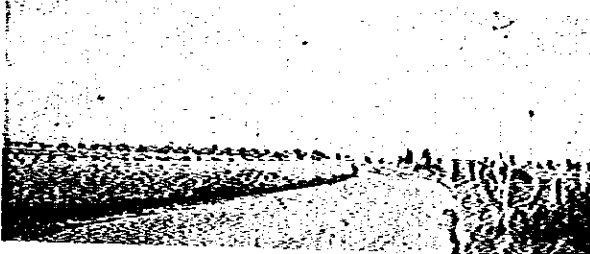
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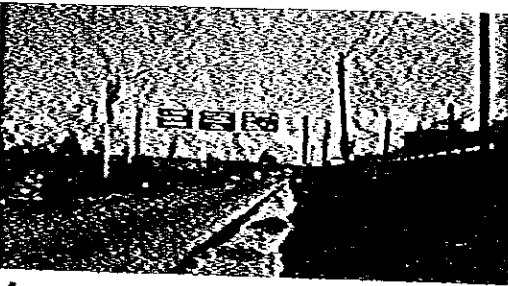
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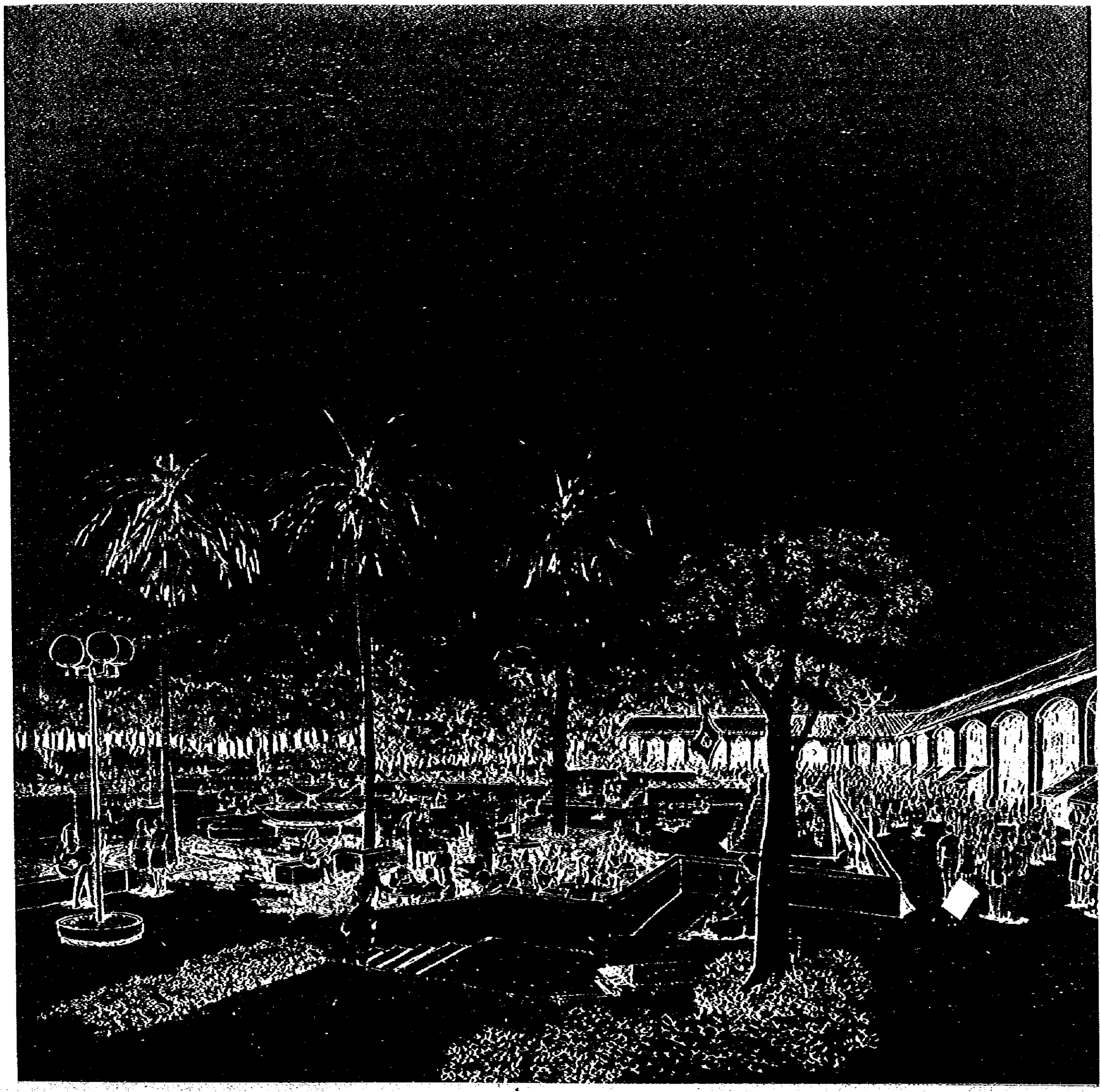
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Goals and Means

Development Targets and Policy

Target 1. Creation of an Environment Appropriate to a Commemorative Park

The park must be able to serve as a symbol commemorating the Libertador Simon Bolivar, and this cannot be achieved merely by erecting a monument to him or naming facilities and plazas after him. Rather, it must be achieved through the creation of a commemorative park environment that makes people think about the country's historical, cultural, industrial and other legacies as symbolized by him and look at modern times and think about how this legacy is to be passed on to future generations.

Policy 1. Creation of Commemorative Landscape

The scenery within the park must be entirely different from the urban environment around it, transcending everyday life in terms of time and space. Such scenery, suggestive of the grandeur and magnificence of nature, will direct the thoughts of visitors for a brief moment to the natural richness of the country and impart a sense of the unbroken flow of time. At the same time, the parts of the park's environment that represent extremely artificially controlled nature, i.e., planted vegetation, ponds and lawns arranged with regularity, will serve as scenery that accents the commemorative and symbolic nature of the park.

Policy 2. Introduction of Native Species

Most of the vegetation in the city of Bogota consists of foreign species with such a high adaptability that they threaten to completely replace native species. Accordingly, there is to be active introduction of native species that used to cover the land in order to increase familiarity with them and instill a sense of affection for local nature as a valuable heritage to be passed on to future generations.

Target 2. Promotion of Use of the Park by All Strata of the Population

In the many existing city parks in the city of Bogota there is not much opportunity for park leisure other than use of playground equipment and sports facilities. Full use is not made of their wide spaces, and at night they become dark and dangerous. At this rate, they could become

abandoned wastelands, less and less attractive, and fail to contribute to the moral condition of the people. This is why the present park must be planned as a park affording greater opportunities for its utilization and a park of an attractiveness not to be found in conventional city parks.

Policy 1. Urban Ribbon as the Core of the Park

As a park within the park, there must be provided a particularly attractive area as space and facilities making possible a variety of human activities, going beyond the scope of recreation activities normally to be seen in city parks and at the same time being conducive to new activities. Such an area will be a link between the city and the park, inviting people into the park to walk and to stop from time to time along the way.

Policy 2. Segregation and Integration of the Whole Park Area

The area of the park consists of a combination of several existing parks near to one another and areas to be newly developed and is physically divided by the main street network, a railway and other features. Furthermore, different administrative authorities are responsible for the different parts of it. From the standpoint of creation of a comprehensive city park, which is one of the important aspects of the present park, it is necessary in the park development process to strengthen integration of the Whole Park Area in physical, functional and administrative terms so that it will be able to meet the diverse activity needs of users throughout its area.

Furthermore, the ensuring of a diversity of activities on the basis of integration can only be satisfactory to users and conducive to increase of park use demand if the individual activities are planned as segregated in such a way as not to disturb one another.

Policy 3. Strengthening of Planning and Operation

Since the park has ample space for a diversity of uses, if planned properly, it can attract a large number of people.

Accordingly, the park is to be provided with plazas and multipurpose space suitable for a diversity of levels and types of activities ranging from a

National Ceremonial Plaza for regular national and international events to small plazas suitable for informal gatherings. By means of a to-be-established and continuing cycle of (a) discovery of various kinds of potential demand by users, (b) formulation of plans, (c) organization and (d) implementation, it should be possible to raise the rate of utilization of the park to a very high level, thereby maximizing the returns on investment in the park.

Target 3. Realization of Park Construction and Maintenance of the Quality of the Park

The following will be necessary in order to make this significant project concept a reality and maintain the dignity of the park and the quality of its conditions of use into the far future.

Policy 1. Multilateral Organizational Cooperation and Establishment of Autonomous Organization on the Basis of Such Cooperation

The facilities to be provided in the park can only be realized with collaboration and cooperation among a variety of organizational entities, both private and governmental.

Furthermore, it will be difficult to realize an integrated unified park without the collaboration of the parties that own the various portions of the park area.

Moreover, for realization of the park, it is essential that the existing parks undergo change, with opening by stages and improvement of content, and in order to program such construction and operation and implement it in a sure manner, it is necessary that a unified, permanent organization be established for overall control of the Whole Park Area.

Policy 2. Coordination With Higher-level and Related Plans

In view of the fact that the construction of such a large park will have a great bearing on city planning, involve a considerable amount of investment, and have a great social development impact, it is necessary that there be adequate coordination between it and high-level and related plans.

Development Strategies

Furthermore, in terms of park development itself, it is necessary that there be coordination between plans for construction of mass transit facilities for greater accessibility of the park, other city park construction programs, setting park functions, etc.

Policy 3. Optimization of Operation and Maintenance Costs

One of the main factors in the lowering of the quality of parks is a decline in the level of services because of failure to undertake adequate maintenance. This being the case, it is necessary to give consideration to provision of a maintenance system capable of achieving maximum effects at optimum costs so as to maintain the quality of the park environment and guarantee its pleasantness to users from the present to the distant future, as well as the selection of plant materials, the architectural plans and the utility plans serving as a premise to such a maintenance system.

Development Strategy

Based upon the significance of the project mentioned above three strategies are proposed to lead up to realization of the park.

The three categories are as follows.

"Commemoration of Libertador Simon Bolivar Strategy"

The spirit that moved Simon Bolivar and the sense of togetherness and national communication between each of the Bolivarian countries as well as Latin-American countries would be exalted with close cooperation and coordination among the people.

Through thoughtful understanding of Colombian history and culture, and education as well as social communication would be propagated widely. The Simon Bolivar Memorial Park would be a means for realizing this.

"Comprehensive City Park Development Strategy"

The location, spatial scale and elements of this park fundamentally are to have characteristics and functions appropriate to a comprehensive city park in an urban park system.

The potential for recreational activities in this park would be countless and diverse recreational activities can be provided for all citizens of the Bogota urban area, especially many activities which cannot be provided at the neighborhood and community scale would be provided in this manner.

Also, this park would have a characteristic urban park core to integrate with other parks according to future demand for proportional distribution, and this park would have a role in the initiation of integrated and systematic linkage of urban park systems.

As for prevention of disasters, the wide safety areas of the park will provide suitable spaces, facilities and equipment to the citizen for use in case of disaster.

"Environmental Conservation Strategy"

Reserving a large-scale open space within an urban area means inevitable important element for urban planning and development. This park easily provides a large amount of greenery in urbanized areas where natural elements are needed.

Greenification of the park area would provide a natural environment and diverse planting will provide many landscape scenes, and also this greenified area will be maintained as a greenery conservation area.

Greenified park areas are going to grow more natural in ecological aspects. Natural environment always consists of flora and fauna on the basis of earth and meteorological conditions; in this park also an environment with these conditions will be established and ecologically conserved.

Planning Framework and Policy

General

Before formulating the master plan, it is necessary to identify the project preconditions and targets by use of quantitative indicators. The following are the planning framework and policy clarified in this manner, and the master plan study has been commenced after the confirmation of these bases.

Development Target Year and Development Area

The time schedule for development of the Park shall be determined by accumulation of the time schedules for each process of the park development. It would be adequate to assume the time required for the total development of the park is approximately 10 years and therefore, the final target year shall be the end of 1990 when all the park facilities and landscaping are completed constructed and the park administrative body is activated to undertake the full operation of the Whole Park Area. The proceeding steps after the Master Plan shall be the Feasibility Study, Detailed Design and the Implementation of the Park by phased construction according to the priority of the park facilities and availability of necessary funds. Taking into account the phased nature of the construction process, intermediate development targets are also made and the operational area of the park shall be extended by the end of each intermediate target year in relation with the growth of park visitors demand.

User Demand and Its Characteristics

The number of visitors to Simon Bolivar Park is projected as shown at the right on the basis of the demand study.

Table - 12 Targets of Development Area

Category	Indication	Existing	Target	Intermediate Target	
			in 1990	up to 1982	up to 1986
Development Area	Total development area (ha)	116.5	301.0		
	Target areal ratio of new development area (%)		68.3	7-10	35-40
	New development area (ha)		205.7	14-20	72-82
	Target areal ratio of improvement area (%)		31.4	3-5	15-20
	Improvement area (ha)		95.3	3-5	14-19

Table - 13 Demand and Target Capacity of Park Use

Category	Indication	Existing	Target	Intermediate Target		
			in 1990	up to 1982	up to 1986	
Park Visitors	Population in Bogota (unit: 1,000 persons)	4,297.0	6,086.0	4,469.0	5,360.0	
	Annual rate of population increase (%)		4.00	4.00	3.50	
	Total number of users of existing parks in Bogota (unit: 1,000 persons)	18,565.0	26,307.0	20,078.0	23,160.0	
	Total number of demands for park use per year (unit: 1,000 persons)	8,377.0	46,626.0	35,609.3	41,061.1	
	Target for total number of capacity for park use per year (unit: 1,000 persons)		46,626.1	13,000.0	28,800.0	
	Total number of demands for park use on peak day (unit: 1,000 persons)		92.2	513.0	391.6	451.8
	Target for total capacity for park users at peak hour on peak day (unit: 1,000 persons)		26.9	149.6	33.3	83.5
	Target for average number of visitors on average day (unit: 1,000 persons)		23.3	129.5	28.8	72.3

Activities To Be Introduced

Taking into the consideration the development strategies of the park and compatibility with the park system of the city of Bogota, the characteristics of the Simon Bolivar Great Memorial Park should be a comprehensive whole in which are blended various recreational, cultural and other activities. The targets are shown at the right.

Table -- 14 Target Share of Recreational Activities in Bogota

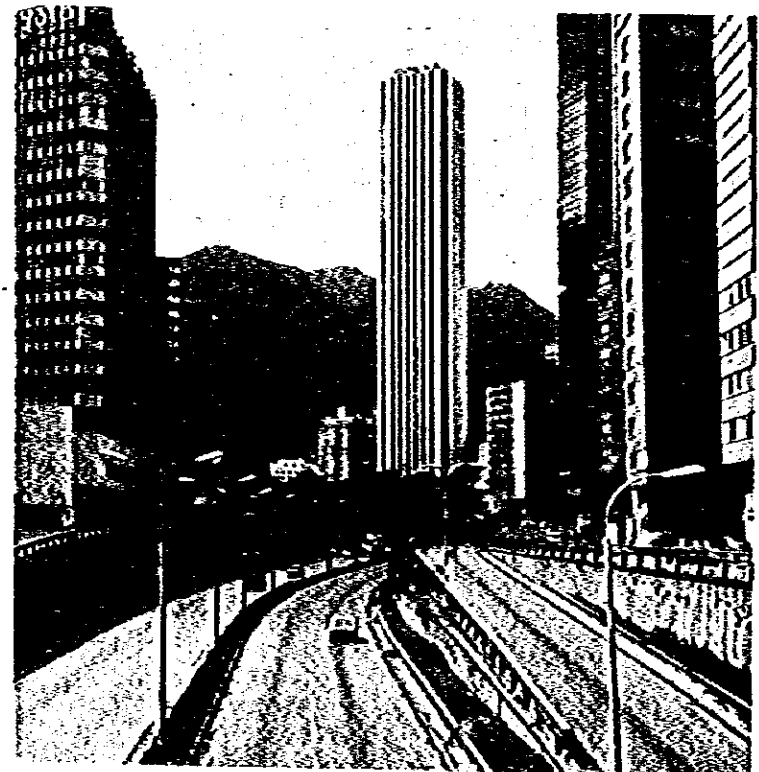
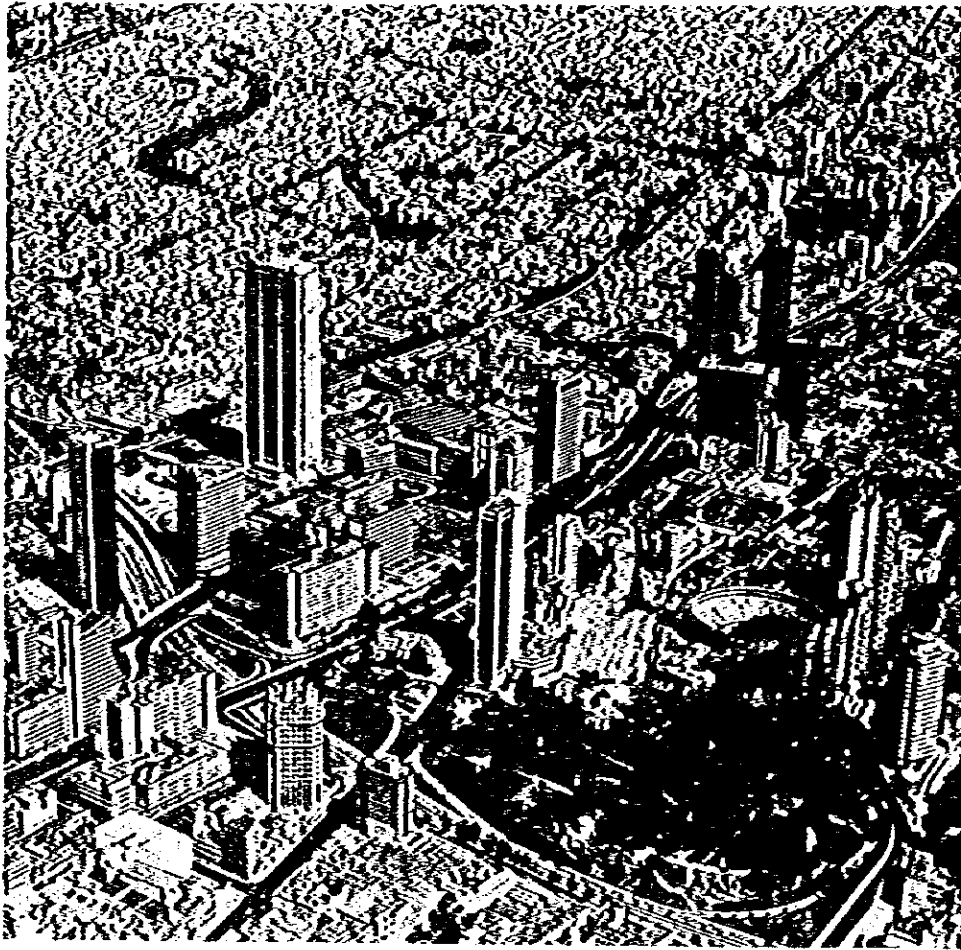
Category	Indication	Existing	Target in 1990	Intermediate Target	
				up to 1982	up to 1986
Recreational Activities	Index targets for the share of recreation and relaxation activity (%)	6.0	35.0	--	--
	Index targets for the share of sports activity (%)	61.4	20.0	--	--
	Index targets for the share of amusement activity (%)	31.1	20.0	--	--
	Index targets for the share of cultural activities (%)	1.5	25.0	--	--

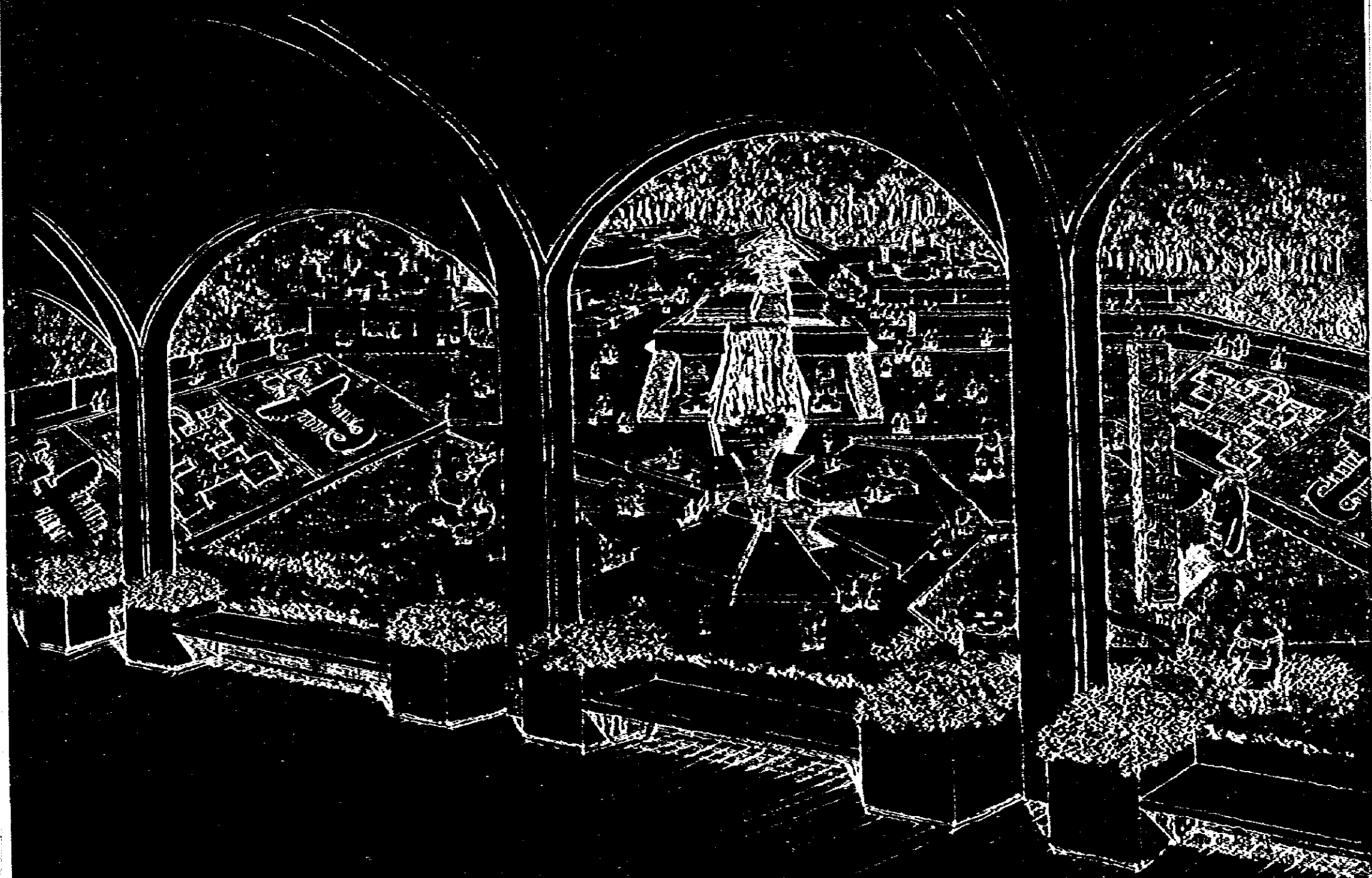
Park Facilities To Be Introduced

In line with recreational activities to be introduced, effective theme facilities should be selected to activate the park use. But the total building area of these park facilities should be limited on the basis of the principle that the main function of the city park is to preserve open space in an urban area. It is also necessary to provide for park service facilities, and the capacities of those facilities should be determined in relation to the number of park visitors, peak demand, and locational dispersion of such facilities in view of assuring efficiency of service.

Table -- 15 Targets of Park Facilities Development

Category	Indication	Existing	Target in 1990	Intermediate Target	
				up to 1982	up to 1986
Park Facilities	Index targets for the floor area of theme facilities (m ²)	16,000	90,000		
	Target of lot occupancy ratio to whole park area (%)		3.0		
	Index targets for the building area of service facilities (m ²)		30,000		
	Target of lot occupancy ratio to whole park area (%)		1.0		
	Framework for the building area of occupied facilities in the park area (m ²)		30,000		
	Target of lot occupancy ratio to Whole Park Area (%)		1.0		
	Parking requirements (number of vehicles including private buses)	496	7,850	800	4,000





Zoning Plan

Zoning Concept

The first step in the Master Plan Study lies in setting the spatial order relationship between space and anticipated intra-park activities with the aim of bringing to fruition the three developmental strategies identified with the Simon Bolivar Great Memorial Park.

In this connection, there arises the need for developing a composite zoning system based on a zoning concept compatible with the respective developmental strategies.

The primary aim of the zoning concept is not one of restricting activities but is one of, through the use of a well coordinated zoning system, causing the emergence of new activities, highly enhancing the multiplier effect of park utilization, and creating a site which enables the people to enjoy new, highly fascinating experiences.

Zoning Procedure

The zoning plan was formulated using the following steps.

Step 1: Activity Analysis

Rendering of a qualitative, quantitative and pattern analysis of park activities as determined in the Planning Framework.

- Quantitative Analysis
Optimum per person spatial requirement according to type of activity: activity factor, size of crowd, etc.
- Qualitative Analysis
Whether of active or static nature; whether activities are simple or complex in nature.
- Pattern Analysis
Concentrated; evenly dispersed; linear; etc.
- Relationship Analysis
Inter-activity compatibility & reciprocal relationship

Step 2: Network Model Analysis

With the aim of establishing a system for integrating the space units, by type of activities based on analysis undertaken to this point, bipolar analysis on spatial continuity and discontinuity and on visual continuity and discontinuity are undertaken.

- Spatial Continuity/Discontinuity
Primarily movement related. The work here makes it possible for human traffic to flow in response to the surrounding scenery: this factor

is particularly important at points where there is an intensified flow of human traffic.

- Spatial Discontinuity/Visual Continuity
Related to building of stopping areas. This provides spatial discontinuity by using lakes, and wooded and planted areas while enhancing the visual effect of distant scenery.
- Spatial Continuity/Visual Discontinuity
Related to producing spatial variation. This gives consideration to having each space unit visually independent but making it possible for pedestrians to enjoy a series of varying scenic views by having these space units interlinked.
- Spatial Discontinuity/Visual Discontinuity
Provides independent, disconnected space units. By providing space cut off from the outside world, the potential of an area is enhanced and a turning point is provided in going from one area to another.

Step 3: Zoning Plan for Each Strategy

This step is to formulate a concept of zoning compatible with the respective strategies based on a study of activity analysis, spatial order formation and inter-spatial unit relationship which are expected to emerge from the three developmental strategies.

- Structural zoning for Strategy - 1
1.) "The Commemoration of Simon Bolivar" strategy represents the central theme of the memorial park and the framework for structuring the entire park on a spiritual level. There is a need for creating a minor universe out of

this park into which the essence of space and time dimensions symbolizing Simon Bolivar, which all Colombians share in common, shall have been embodied, and for creating a tangible spatial structure that will give all park visitors a symbolical sense of this concept.

2.) Based on this concept, a time axis and a space axis are to be established horizontally and vertically, spanning the entire park area, and a National Ceremonial Plaza is to be built at the junction of these axis.

- Activity Zoning for Strategy - 2
1.) The variety of activities that are essential to an urban general park shall be clearly segregated on the basis of space, audio and visual aspects so that the activities can go on without creating any interactivity disturbance. They will be classified under static recreation, active recreation, sports, cultural activity, among others.
2.) On the other hand, it will not be possible for visitors to utilize all zones of the great park, covering 350 ha, in one day. Thus, the respective zones for the most part will possess their own characteristics while maintaining multiphased subzone characteristics so as to make each zone a completely integrated, independent unit in itself.
3.) The activity zones with high utilization density shall be given adequate accessibility and serviceability through the provision of roadways in the peripheral zones.
- Environmental Zoning for Strategy - 3
1.) By provision of buffer zones in the peripheral areas, it will be possible to cope with the needs for disaster countermeasures, urban

Fig. - 16 Conceptual Zoning Model



beautification zones, urban greenbelt zones, etc. by clearly segregating the buffer zones from the urban areas, and at the same time giving the park visitors a sense of arrival.

2.) Environmental conservation, with the objective of creating a memorial to Simon Bolivar in mind, will be based on the concept of enabling ecological conservation urban greenbelt zone.

Step 5: Zone Classification

Based on the zoning system as integrated in Step 4, the entire park area will be segregated into 9 zones.

Grand Mall Zone

The Grand Mall Zone is axially located in the central part of the park along with Avenida 63, and includes the National Ceremonial Plaza and other various theme plazas connected by the Urban Ribbon. Multiple activities will be concentrated in this zone and the zone will have an organically close connection with others according to activity patterns to be generated.

This zone can be used for diverse recreation activities, with harmony between an urban sense and natural elements. Besides serving as a place for parades, large gatherings and other events, the Plaza can be converted into a great number of spaces for small group activities. Besides serving as a place for educational and cultural nourishment, much can also be expected of it as a place for creation of new cultural, artistic, music, fashion and other accomplishments by the city's new urban life oriented citizens.

Commemorative Symbol Zone

This zone represents natural scenery, coordinating diverse greenery, an open grass field with lots of variation, and expanded water surface. This zone will present grand natural scenery as well as provide static recreation and tranquility for all park users.

Urban Complex Zone

The activities assigned to this area are the more formal and programmed ones from the point of view of users, which are, comparatively, more urbane and directed in purpose in their visiting the park. The establishment of a spectacles and exhibition complex, plus international official assemblies and conference facilities, strongly characterizes this zone as a cultural center and as an attraction to tourists and the most educated

public, primarily in evenings.

Included on the Master Plan and intimately linked to this Zone, but not as an integral part of the Park, is a five-star hotel, a complement of the complex, to be realized by private enterprise.

Sports Recreation Zone

This zone has a definite active recreation function. The expansion of the area to include organized and controlled opportunities to engage in sports aims simultaneously to a better administration and use of fields and services under Coldeportes management and to free other recreational areas from the nuisances and inconveniences that unplanned sports activities may cause to more leisurely activities and different age groups. To be close to the major activity, the Coldeportes administrative building is located in the center including the Sports person's Health Center.

Amusement Zone

The Amusement Zone constitutes the actual part of El Salitre Park including mechanical attractions expanded to the corner of Calle 64 and Carrera 63 to include new mechanical attractions. In close spatial relation there are a quiet enclosure for small children with a nursery, and an open space with services for the erection of circus tents and itinerant spectacles of this kind.

Separation of functions and connection with the Mall is made by means of thick greenery that runs covering, the Mall unifying the park and makes a visual and structural linkage with the adjoining zones.

Cultural Zone

This zone is to be used for the folkloric regional festivals distributed over a simulated map of the country, where the landscape is designed to create conditions according to the tectonic and vegetation characteristics of each region.

Besides this educational function, it will act also as a gathering place for the natives from each regions on traditional festivals accompanied by the performance of spectacles and/or competitions usually included in that kind of celebration. Accordingly, adequate program should be planned.

Static Recreation Zone

Completion of tree scenery around the lake will create a enclosed environment for boat rowing and the enjoyment of being surrounded nature. Vinculum of the Cultural Zone and by Mall is

established by means of a aboriginal village as an intermediate point between the Anthropology Museum and existing folkloric manifestations.

Entrance Zones

This zone is located in the south-east and north west parts of the park area, and functions as a main approach area to the park, main information center and some facilities for the convenience of visitors will be provided.

Botanical Garden

This zone corresponds to the Jardin Botanico, and is dedicated to academic experiments and education as well as natural conservation. Some parts inter-connected with the Sports Recreation Zone would be systematically reorganized and well integrated.

Fig. - 17 Zoning Plan



Master Image for Park Landscape

Scenic Elements

The following are the seven scenic elements of the Simon Bolivar Park.

- **Grand Mall:** With change in the route scenery and functions of Avenida 63, it will assume the form of a gently curved parkway. This parkway, together with the pedestrianways on both sides, will form a belt-shaped grand mall along which rows of trees, pavement, alcoves, plazas and outdoor equipment and furniture will be located, providing a view with an urban sense.
- **Grand Plaza:** A national plaza with a total width of 100m and a total length of 700m will be formed, both sides of the plaza protruding outward in the shape of stands, for an overall long, narrow bowl shape. Here there will be enough space to stage national ceremonies and parades and various other events of different kinds that draw large crowds, such human activity being an important dynamic scenic element.
- **Water Surface:** The wide expanse of the water surface and the variation of the shoreline will be representative of the commemorative park scenery and provide a view befitting the center of a large-scale comprehensive park. In this connection, it is particularly important that the water surface be in harmony with the natural greenery, and as one of the three main visual elements along with greenery and the land itself, the water surface must be given a distinctive character.
- **Land Formation:** This is the foundation of the park scenery on which all of the scenery is based. Since the topography of the parks in Bogota is presently flat and monotonous, basic reconsideration must be given to it so as to provide the kind of varied terrain that makes for scenic variety.
- **Greenery:** On the basis of the quantity and the quality of the natural environment, the greenery of the park affects the overall park scenery. It is proposed that the 110 ha area serve as a core of the overall greenery of the whole park for formation of continuous harmonized green space.

- **Open Grass Fields:** The visual expansiveness of the park and the variation of its terrain can be expressed in terms of greenery by open grass fields, which can serve as a basic element of the scenery in contrast to the expansive water surface and hard surfaces and to groves of trees and individual trees.
- **Park Facilities:** As opposed to the natural scenery of the park, the park facilities will provide artificial scenery as focal points within the natural scenery. Any large structures should be combined with the ground and the natural earthscape as scenic expression.

Land Relief and Landscape

The flatness, convexity or concavity of the terrain has a decisive bearing on the field of vision.

Since flat land generally makes for stability of form, not much can be expected of it in terms of basic scenic variation. Accordingly, it is necessary to choose the space that can be created as sufficient view, and the view is recognized for a scenic structure conducive to a sense of familiarity in psychological terms.

With a convex or protruding terrain, the field of vision is open, making for a psychological sense of openness, and with concave terrain, the field of vision is generally limited and clearly guided, making people feel at ease psychologically. On slopes the scenery has a downward orientation for the majority of people, the field of vision being suitable for appreciation of the overall scenery. On the other hand, going upward there is less selection in the field of vision, and directionality can be attained even with small scenic elements.

Environment

The principal purpose of the 110 ha area that is to serve as the core of the Simon Bolivar Memorial Great Park is that of introduction of nature into the city. The trees and other vegetation planted on the basis of the terrain, soil, water, climatic and other conditions form the park environment and establish the

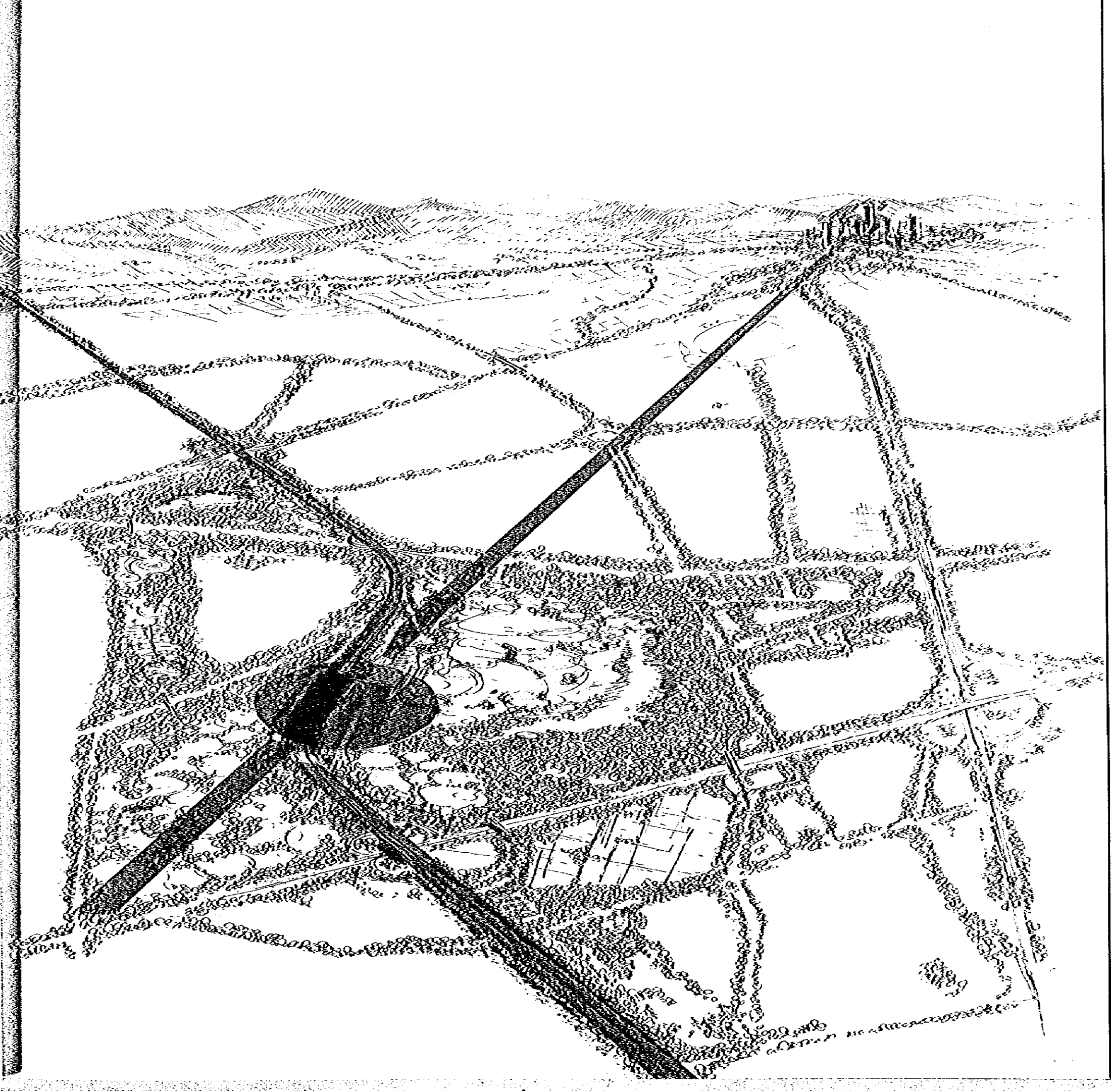
ecological foundation of the park. Furthermore, a variety of fauna make the park their habitat on the basis of this ecological foundation.

In the case of the present park, it would appear to be advisable to have an overall green coverage ratio of at least 65-70%. Furthermore, it is proposed that there be a standard with respect to the percentage of the park area represented by tree shade and that this standard be 30% for the 110 ha area and 20% for the entire park. These standards would appear to be appropriate in comparison with internationally famous large-scale city parks and in view of the present and future level of the city park environment.

Visual Context for the 250 Hectares Area

Main factors considered in relation to scenic treatment are:

- A clear identification of the Whole Park Area in contrast to the urban silhouette, to reinforce their own and relative values.
- A unity of landscape design throughout, under a concept of dignity according to the park's symbolic and commemorative significance.
- Establishing visual sequences and landmarks as required by the visitors' means of mobilization and the selected vista points or restplaces where to comprehend the park structure. The rhythm of stop and go is accompanied and even induced by the visual environment.
- To preserve the importance of the monument by linking it visually to certain more important points that may allow the easy reading of the park conformation.



Circulation Plan

Approach to the Park

The Whole Park Area shall be located just in the center of the city when the urbanization programs of the city will have been implemented in the future. Also, this location shall be the junction point of the three residential areas with different social levels, low income level in the south, the medium in the west and the high in the north, and therefore, shall be best situated as the place for public communications, cultural and educational activities and for the environmental conservation of Bogota D. E.

Thus with a view to forging a catchment area for the entire city of Bogota, it is believed that the approach to the park will account for about 75 to 80% of the overall traffic volume in the entire city area considering the social level configuration of the prevailing population distribution which is making the heaviest use of mass transit systems such as route buses.

To cope with a more expansive sphere of utilization, the approach to the currently planned bus terminal in the southeast sector of the park, access will be provided by means of foot transportation or circulation bus service.

In the event of completion of the mass transit system stations that are projected for construction near the east, west and south sides of the park, it is believed that approach to the park by pedestrians will account for a higher percentage, although the utilization substitution rate resulting from setting of the route bus fares will influence this in a manner and extent yet to be determined.

Modification of Arterial Road

Although the park area will be intersected by a road system of an important level in the urban traffic system, from the viewpoint of general utilization, unrestricted access will be provided for pedestrian traffic through the building of pedestrian crossing bridges and tunnels.

Upon taking into consideration the impact upon urban traffic, steps will be taken to have relatively unessential roads relocated or eliminated.

In particular, Calle 63 serves as a key urban arterial route linking the residential areas in the western

part of the city with the heart of the city. However, the park's peripheral road network system will need to be improved so that alternate routes will be available when Calle 63 has to be closed off during its use as an urban mall or during its use as a parade route on certain ceremonial occasions.

Entrances and Parking

The basic thinking on major entrances to the park is as follows.

- Based on the zoning concept of having activity spaces provided in the park's peripheral area, entrances will be located along the peripheral roadways, with a view to accommodating access by means of passenger car and bus and preserving quietude in the quiet zones located in the park interior.
- Because of the spacious area involved and of access being made from many directions, a large number of entrances will be wanted. However, for administrative reasons, it will become necessary to consider putting in a single entrance at each zone where the nature of the activities it is to support has been clearly established.
- In anticipation of huge crowds in the centrally located Ceremonial Plaza when ceremonial activities are undertaken, the provision of a large scale entrance with accommodations for bus parking, situated within 500 meters of the plaza to stay within walking distance limitations, is being considered. This entrance will serve as principal access for all routes in the park running on a north/south axis.

Pedestrian Mall

The Urban Mall, projected to be built along Calle 63, will form the shortest connecting route network leading to the different destinations via the arterial park roadways that extend around the park area. This mall, which will be created using such elements as water, plants, pavements, plazas, etc. as part of its makeup, will not only have a circulation-oriented function but will also have the function of making it easy for park users to orient themselves as to their present position by being able to establish their sense of direction and by being able to view the state of the gatherings at the activity cores.

Park Road Classification

The functional classification of the park roads is as follows.

- Major park roads: These are park roads that clearly divide the park into different zones and provide linkage between them, the right of way having a width of up to 7 m and the road itself narrowing somewhat at some places.
- Minor park roads: These roads will have a width of 3.5 – 4 m and will divide the zones into subzones and provide linkage between the main park roads.
- Sub-minor park roads: These are roads for supplementation of the minor park roads and will have the same width as these. Their main function will be as service roads between the main facilities.
- Pedestrian paths: These roads, mainly for pedestrian use, will have a width of about 1.0 – 3.0 m. They will be the capillaries of the park road network.









None of these park roads are to present structural obstacles to the passage of park administration and emergency vehicles.

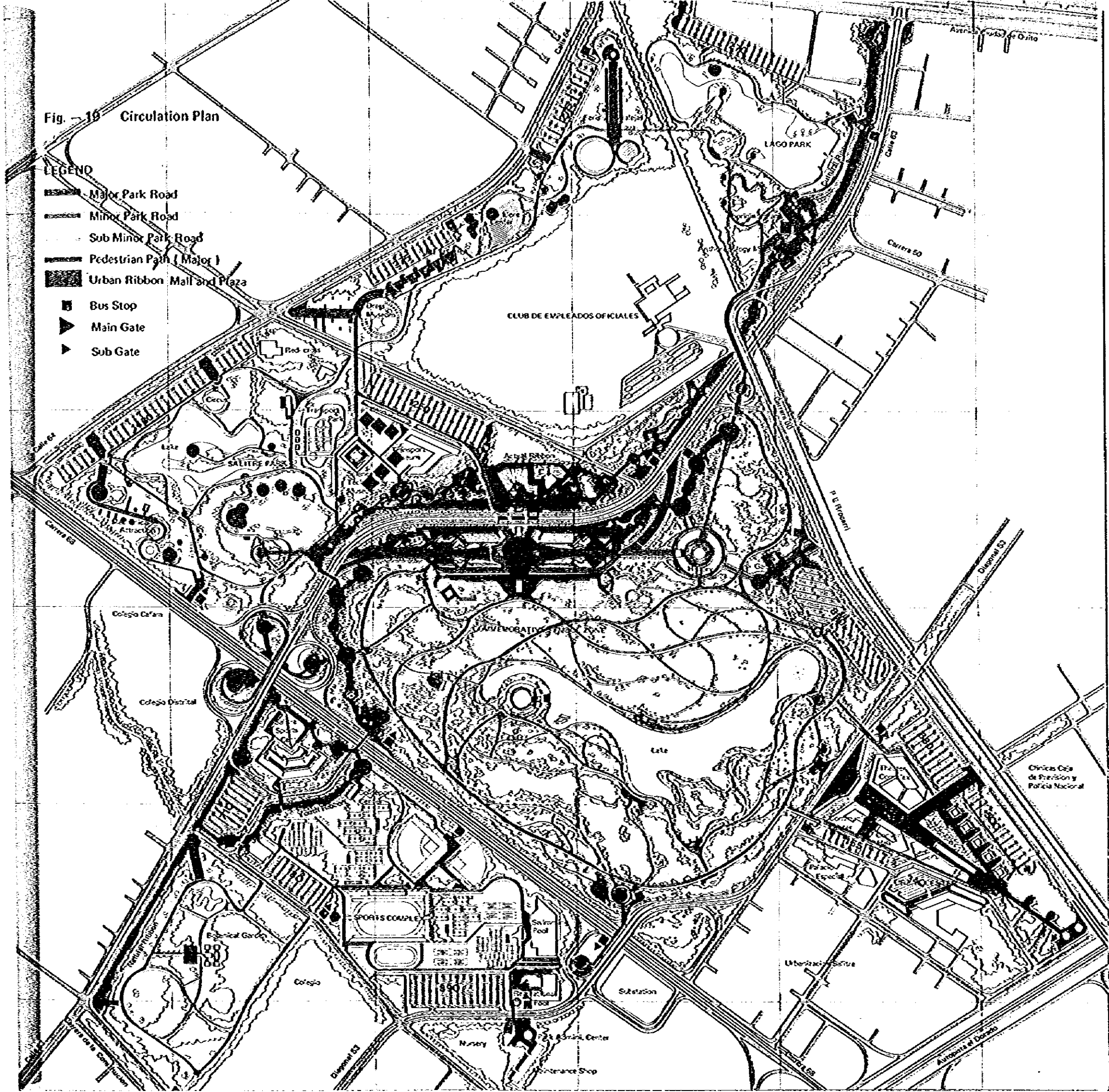
Inner Traffic System

With a park of this grand scale, an intra-park mode of transportation becomes essential. Transportation in the park will generally be by walking. To realize this, each zone has been given a complete form of activities and been provided with its own entrance. And since it is quite possible that long distances will be involved in moving between zones and that transportation needs will not necessarily be at a constant level, a means of intrapark transportation that is capable of ready response to the fluctuations in transportation needs is being considered. In this sense, it has been decided to have an intrapark excursion mini bus route placed in operation along the park road, linking with the entrances, and doing so on Saturdays, Sundays and holidays to accommodate the main crowds expected on those days.

Fig. 10 Circulation Plan

LEGEND

-  Major Park Road
-  Minor Park Road
-  Sub Minor Park Road
-  Pedestrian Path (Major)
-  Urban Ribbon, Mall and Plaza
-  Bus Stop
-  Main Gate
-  Sub Gate



Land Relief Plan

Considerations of Environmental Conditions

The park terrain corresponds to locational and weather conditions and must be suitable in terms of form to the various recreation activities. At the same time, from an ecological point of view the terrain of the park must be comparatively stable, such stability conforming to natural providence and facilitating park administration.

Particularly important is the capacity of the terrain for swift surface drainage after rainfall.

In this park area it is necessary that there be protection of the vegetation from the southeasterly seasonal winds. In other words, a windbreak function must be effectively incorporated in the preparation of the terrain.

Creation of Park Scenery

As for land formation for creation of scenery, in the existing park areas there is insufficient scenic variation because most of the land is flat, and as a result, the field of vision is plane oriented, with trees and facilities as the main scenic elements.

Accordingly, it is necessary that the park scenery be expressed in 3-dimensional terms and have a sense of perspective incorporated in it, that there be breadth and variation of the field of vision, and that there be proper relation to the distant view and the urban skyline.

Water Surface

Besides creation of topographical variation through the build-up type of earthwork, the creation of open water surface through earthwork of the excavation type is also indispensable in the formation of the scenery of large-scale city parks. Particularly where the topography is natural and there is undulation it is easier to incorporate an expansive water surface into the park scenery, and in the case of the present park it will be necessary to actively incorporate water surface in order to emphasize its natural scenery.

The water depth of the lake should be 1 - 4m, and full consideration should be given to

conservation and control of water equality and visitor safety. The earth excavated for creation of the lake will be used for building up the mounds for a balance of earth in the vicinity of the lake, which can also serve the function of collection of storm water drainage in the 110 ha area of the park as well as supplementation of water supply.

Critical Embankment Height

On the basis of a study concerning the embankment limit in the park site, which is characterized by soft ground, it has determined that a limit of about 7m is appropriate for embankment height considering the relationship between the ground conditions and the ultimate bearing capacity. While it is necessary to plan for commemorative landscaping in the park through introduction of natural terrain to replace the completely flat present state of the park terrain, the planning of such landscaping must be such as to achieve maximum effect within this embankment height limitation, and an effort should be made to achieve maximum effect with a minimum of earthwork.

Land Formation for the 250 Hectares Area

Alterations of existing flat land are kept to a minimum and are dictated mainly by necessity, and are:

- In the Children's Kingdom, by reshaping of the small existing artificial pond, to make a barrier between this area and neighboring mechanical attractions.

- At the entrance from Carrera 60 and Calle 64 to have vertical crossing of a pedestrian and main park road to entrance road, raising the grade and creating an orientation plateau in a point of confluence of circulation.

- In part of the Cultural Ribbon as a simulation of the uneven relief of the central part of the country, creating "valleys" and gorges where the activities and festivals may be held.

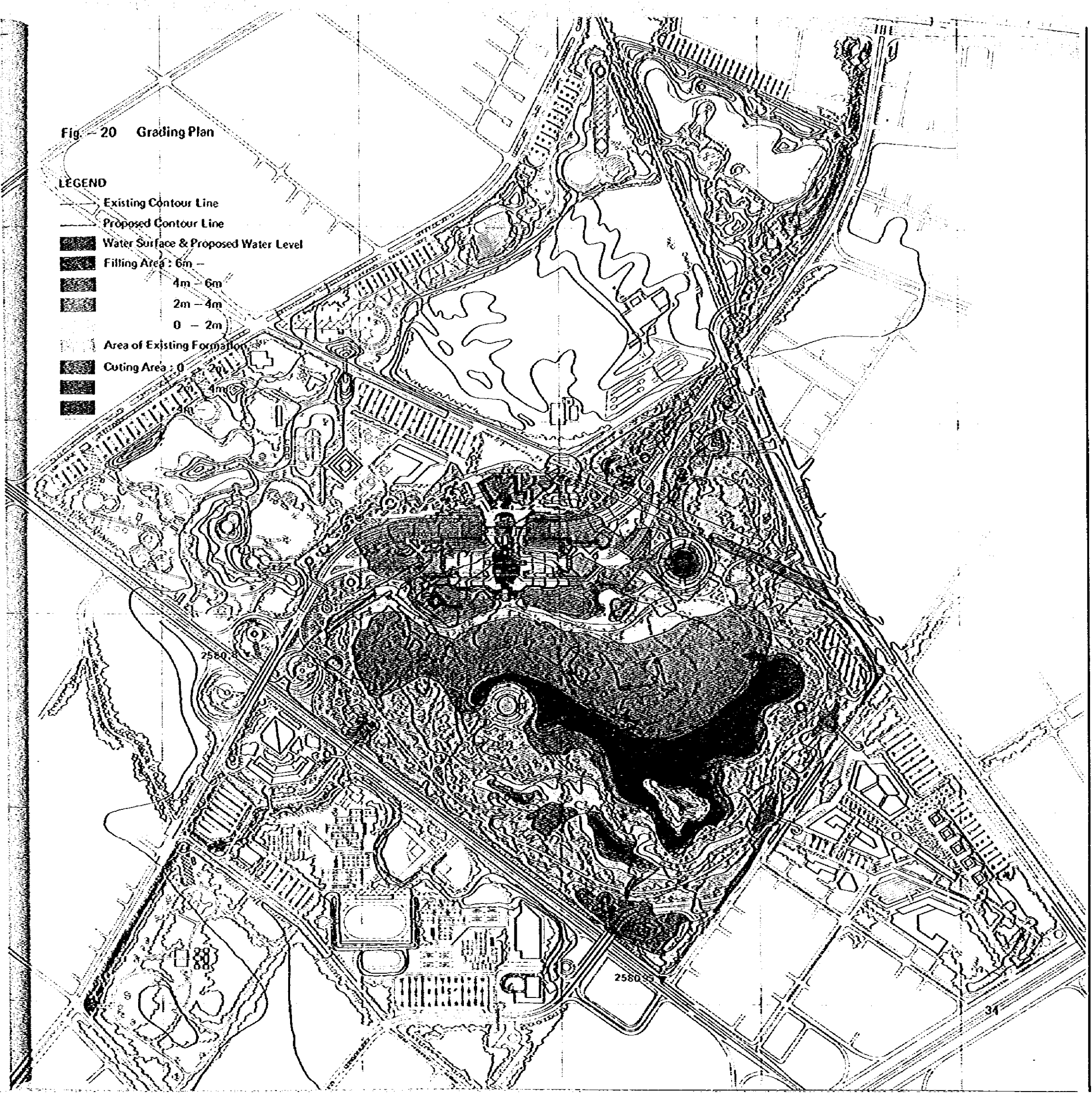
Basic Policy for Earthwork

- In the drainage system, collection of the water is to be in the direction of the lake, and drainage in the direction of the peripheral road.
- The overall volume of earthwork will be quite substantial on account of the basic conditions of the scenic structure of the park. This will determine the proposed ground formation height on the basis of the planned surface area of the lake and the drainage gradient, the central part of the park being set lower than the existing ground level. This is for the purpose of achieving as far as possible a balance of cut and fill in the earthwork. However, since a considerable volume of borrowed earth will be required as a whole, ways will have to be studied for creation of mounds with high scenic effect with a minimum of embankment work.
- In order to prevent the use of soil with a high clay content, which is not suitable for planting as surface soil as the result of earthwork, it will be necessary to keep the present surface layer soil for use as the surface layer at the time of final embankment formation.
- Borrowed earth can be sandy or have a certain amount of gravel mixed in it, but it should have good water retention and a considerable quantity of organic matter in it, particularly when it is to be used as the surface layer.
- There should be a policy of avoiding environmental disruption through the taking of large amounts of borrowed earth from any single place, the matter of how much can be taken depending, of course, on the particular conditions.

Fig. 20 Grading Plan

LEGEND

- Existing Contour Line
- Proposed Contour Line
- Water Surface & Proposed Water Level
- Filling Area : 6m —
- 4m — 6m
- 2m — 4m
- 0 — 2m
- Area of Existing Formation
- Cuting Area : 0
- 2m
- 4m



Planting Plan

Greenification Standards

The city of Bogota lies in an area of grasslands called the "sabana de Bogota", grass growing very easily there and there being very little bare ground because of this fact.

At the present time the greenery coverage ratio of the 110 ha area of the park is close to zero, and in order to bring this ratio up to about 30%, it will be necessary to greenify an area of approximately 33 hectares in it, this figure of 30% being an international park standard.

For the entire 350 ha area of the park, the present greenery coverage ratio is 6.6%, which will have to be increased to approximately 20% or 70 hectares of greenification.

Function of Planting

Comprehensive consideration must be given to creation of planting space that will make it possible to enjoy landscape beauty befitting a place for park use and participation by citizens, the planting being proposed that meets the requirements in each case.

- Physical Functions
- Aesthetic Function
- Environmental Conservation Function
- Psychological Effects

Condition of Planting

For park planting purposes it is essential that the trees and groves of trees that are planted be cared for from a long-term point of view. In reality, however, it is necessary to open the parks to the public as soon as the planting and other park development have been completed. Accordingly, it is important in terms of park use and management that the trees that are planted have already reached a certain stage of maturity and perfection. The following are the various conditions required of planting plans in view of this situation that city parks are confronted with.

- Transplanting of trees that have attained a state of being able to grow on their own. In other words, the trees that are planted have to be able to grow without individual care.

- The species selected for planting must be easily transplantable and have a high root-taking rate after planting.
- Species must be selected that grow quickly and can be easily controlled in terms of shape and height by trimming, thinning out, etc.
- For planting in grove areas of the park, selection must be made of tolerant species that are able to grow even in the shade.
- From a long-term point of view, ecological consideration must be given to natural succession of the trees in grove areas, the provision of good sunshine conditions being a condition for such succession.
- In grove areas of the park there should be 30 - 50% more planting than the amount required about twenty years hence so that overdense areas can be thinned out and supplementary transplanting can be done where trees have withered or sustained damage after about 10 - 15 years.

Planting Characteristics and Allocation

The overall planting program for the park is described below in terms of ten types of greenery.

Table - 16 Planting Concept

Code	Greenery Type	Objectives	Location	Species and Shape
01	Conservation Greenery	• Environmental and Ecological Conservation	Jardín Botánico, Lago Park, Southwest of 110 ha	Natural forest
02	Windbreak Greenery	• Protection against the cold wind from southeast direction	Southwest part of the park	Belt Configuration Native and exotic
03	Aesthetic Greenery	• Giving pleasantness to visitors through aesthetic effect	National Ceremonial Plaza & it's vicinity	Native and exotic
04	Mat Greenery	• Enhancement of the comfortable atmosphere of the Urban Mat	Urban Mat	Belt configuration colorful & varieties of species
05	Facility Greenery	• Beautification and decoration of the surroundings of main park facilities	Surroundings of main park facilities	Foreign species and gardening species
06	Roadside Greenery	• Demarcation of boundaries	Along outer road	Large crowns, lower branches
07	Edge Greenery	• Resistance to exhaust gas • Demarcation of boundaries and areas. • Prevention of visual or physical influence from outside the park	Parking area Boundary of the park	Large crowns, lower branches Fine configuration Mixed use of different height trees
08	Screening Greenery	• Elimination of elements detrimental to the scenery	Vicinity of main facilities	Linear and uniform shape
09	Turf Greenery	• Elimination of bare ground	Symbol zone, Saïtre	
10	Nursery Greenery	• Supplying the young trees	South of Sports Complex	Including flowers

Species Selection










There is hardly any problem at all regarding use of the species that are generally to be seen in parks and other greenery areas and along roads in and around Bogota. In the present park planning, however, there are cases in which the qualities of the species as scenic elements could be a problem, depending on where the greenery is to be located. Furthermore, there must be selection of species to ensure that those planted in the park are easily managed, and in this respect strict selection criteria must be set for both native species, which are to be particularly stressed in the case of this park, and exotic species.

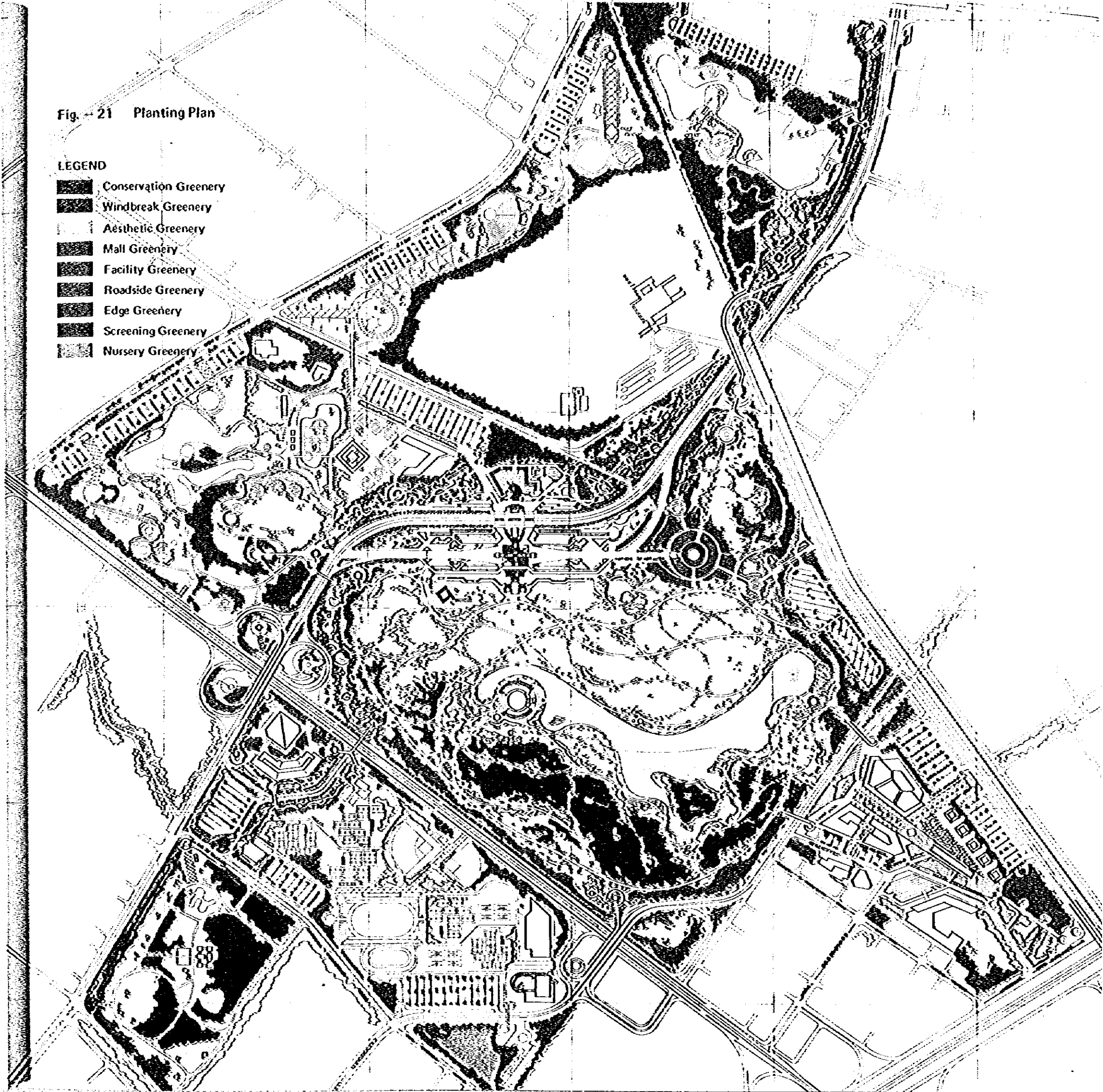
As for exotic species, the use of which there has not been much experience in Colombia, those species should be selected that have been widely used abroad (particularly under climatic conditions similar to those obtaining in Colombia) for park planting. This does not, however, rule out the possibility of some experimentation.

In the case of native species, ease of transplanting, propagation and care will be decisive in selection, and here, too, some test planting will be necessary in cases of species for which there is not much experience.

Fig. 21 Planting Plan

LEGEND

-  Conservation Greenery
-  Windbreak Greenery
-  Aesthetic Greenery
-  Mall Greenery
-  Facility Greenery
-  Roadside Greenery
-  Edge Greenery
-  Screening Greenery
-  Nursery Greenery



Facility Plan

Concept of Park Facility

The basic significance of an urban park lies in the preservation of open spaces and greenbelt areas, with the purpose of its facilities being to promote park utilization and to enhance its utilization effectiveness. The preservation of a vast space of nature is the primary objective of the memorial park, it being something to leave as a legacy for future generations over a time-span transcending the life cycle of a human being. On the other hand, the park facilities are of the nature of something that needs to be adapted to the utilization pattern of the prevailing period, with constant attention needing to be given to their characteristics, substance, as well as their qualitative and quantitative factors.

Policy for Introduction of Theme Facilities

• Commemoration of Simon Bolivar

The introduction of a cultural and educational facilities group for teaching and enlightening in regard to the life, culture and technology of the past, present and future, covering the time span symbolical of Simon Bolivar and experienced by the entire citizenry of Colombia. Also, the introduction of a conference site and plaza facilities group to encourage cultural, material and information exchanges on local, country and world levels. When these elements are being introduced, care shall be taken not to duplicate what is already being provided at the existing facilities within the city by seeing to it that the themes of each group are oriented toward the special characteristics of the park. And considerations shall be given to providing functional and visually effective networks between the facilities.

• Comprehensive City Park Development

Plans will be made to introduce within the Park facilities for sports, amusement, culture, conferences, relaxation, etc. providing functions that will do full justice to a comprehensive city park of its caliber but which are not be found in local parks of lesser standing. Under the existing utilization pattern, the activities are mixed together, so efforts will be made to rearrange the facilities with a view to a making the facilities more substantial in nature and to giving character to each zone.

• Environmental Conservation

The park facilities will be concentrated in the peripheral areas, leaving a vast open space and greenbelt zone in the park's center.

Park Service Facilities

These park service facilities can be broadly grouped into the following three functional categories.

- The first is satisfaction outdoors of human physiological needs. In this category are classified public lavatories, benches and other rest facilities, kiosks, restaurants, cafeterias and soft drink and other vending machines, drinking fountains, and play facilities.
- The second function is management of the park environment and of sanitation and safety, and the facilities falling under this category are park administration buildings, workshops, nursery, litter bins, lighting equipment, gates, boundary fences, etc.
- The third function is provision of information for park use and control of park traffic, and under this category fall information offices, bulletin and message boards, traffic signs, etc.

Distribution Policy of Service Facilities

- In the installation of service facilities considerations on a comprehensive basis will be given to such factors as projected distribution of park users, performance effects, and ease of orienting one's present position, while keeping in mind such overriding factors as user convenience, ease of maintenance and administration, uniformity of servicing opportunities, and preservation of security.
- With the Urban Mall and the parkways leading from the mall to the entrance gates serving as major activity axis, service facilities designed with high aesthetic effects will be installed.
- Theme facilities and plazas, designed to put the utilization thereof to good advantage, shall be concentrated in the park's peripheral area.
- In the other areas of the park, the number of facilities will be held to a minimum from the standpoint of greenbelt preservation, and measures for controlling the activities of park users will be instituted.
- So as to be able to cope with situations such as special events, exhibitions, etc., consideration will be given to making it possible to set up temporary service facilities in the plaza areas as may be needed for the time and place involved.

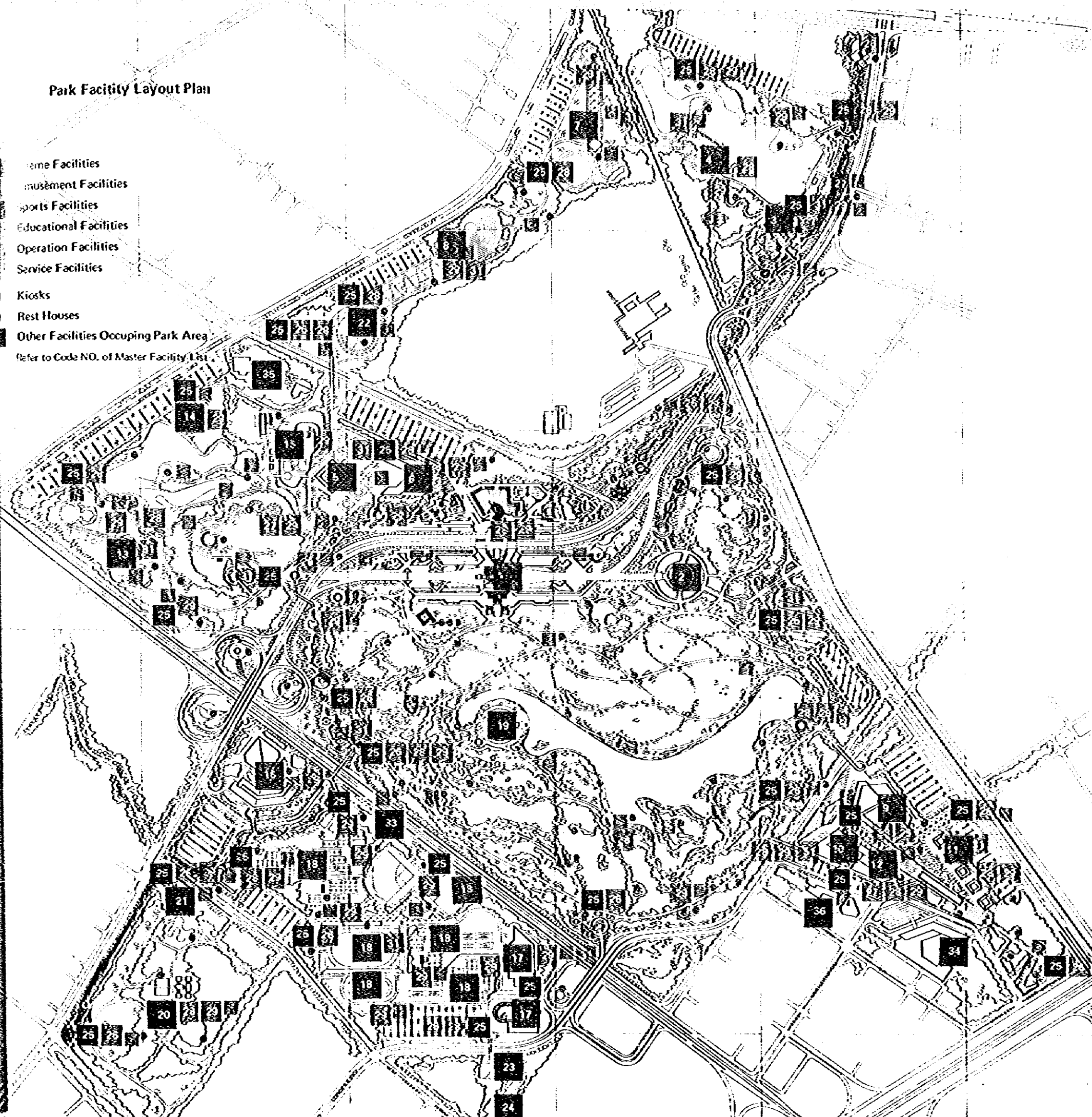
Table - 17 Whole Facility List

Category	Code	Facility Name	Location and No. of Units						Total
			Urban Mall 110 No.	Lago Park	Mi. Towne	Salinas Park	Sports Complex	Historical Center	
Theme Facility	01	National Monument							1
	02	Statue of Simon Bolivar							1
	03	Statue of Simon Bolivar							1
	04	Statue of Simon Bolivar							1
	05	Statue of Simon Bolivar							1
	06	Statue of Simon Bolivar							1
	07	Statue of Simon Bolivar							1
	08	Statue of Simon Bolivar							1
	09	Statue of Simon Bolivar							1
	10	Statue of Simon Bolivar							1
	11	Statue of Simon Bolivar							1
	12	Statue of Simon Bolivar							1
Amusement Facility	13	Amusement							1
	14	Amusement							1
	15	Amusement							1
Sports Facility	16	Sports							1
	17	Sports							1
	18	Sports							1
Educational Facility	19	Educational							1
	20	Educational							1
	21	Educational							1
Operational Facility	22	Operational							1
	23	Operational							1
	24	Operational							1
Service Facility	25	Service	5	3	3	4	2	4	21
	26	Service	1	1	1	1	1	1	6
	27	Service	1	1	1	1	1	1	6
	28	Service	1	1	1	1	1	1	6
	29	Service	1	1	1	1	1	1	6
	30	Service	1	1	1	1	1	1	6
Others Facilities Occupying the Park Area	31	Others	1	1	1	1	1	1	6
	32	Others	1	1	1	1	1	1	6
	33	Others	1	1	1	1	1	1	6
	34	Others	1	1	1	1	1	1	6
Total			10	6	6	8	4	8	42

Fig. 1
LEO

Park Facility Layout Plan

- Theme Facilities
 - Amusement Facilities
 - Sports Facilities
 - Educational Facilities
 - Operation Facilities
 - Service Facilities
 - Kiosks
 - Rest Houses
 - Other Facilities Occupying Park Area
- Refer to Code NO. of Master Facility List



Operation Program

In order to maximize use of the park, and fully utilization of its functions, a detailed plan for use of the park must be developed, in a comprehensive manner.

General Information for Visitors

The hours the park is to be open to the public shall be, normally, 8:00 a.m. to 6:00 p.m., with the exception of the Mall, Ceremonial Plaza and theme-related facilities. If the Mall is to be open 24 hours a day, a high level of illumination and security control will be required. The hours of the Sports Ground, Mi-terra and other theme-related facilities is to be from 8:00 a.m. to 10:00 p.m. in view of the time during which the citizens prefer leisure activities, and the usual timing and duration of events.

- **Transportation to and from the Park**

From the nearest mass transit station and city bus terminal, it is 3 minutes ride by bus and 15 minutes on foot to the park gates. Parking spaces are to be provided along the roads side in the park near entrances for those visitors who drive to the park. Space will be provided there also for a taxi stand and waiting buses. Sub-entrances for visitors who arrive on foot will be located at 300-500m intervals.

Visitors who have arrived at any of the two main gate areas will be able to reach their destinations in the park by use of park circulation buses. Visitors who have arrived on foot at sub-entrances will be able to board city buses at stops at distances of 200-300m from all sub-entrances.

Once in the park, visitors wishing to go elsewhere in the park can use circulation buses and enjoy park scenery as they ride.

As a sub-system for transportation within the park use of small electric (battery-powered) vehicles, which are noiseless and emit no fumes, may be considered.

- **365 Days of Events a Year**

Ceremonies on the occasion of national holidays of course will be held throughout the year. Somewhere in the park, every day, there will be an event or special event in one or another these areas in which Bogota citizens participate. Families, groups of friends or neighbors or co-workers and the like will be called upon to participate.

These groups will be urged to present requests to the park operation office for the planning and holding of cultural, artistic, sports, charity drives and other events and activities using the park's facilities.

Application for Use of Park Facilities

Name/nature of event _____

Sponsor(s) _____

Purpose _____

Date, time _____

Persons to participate _____

Details _____

Submitted by _____

The people will be particularly encouraged to participate in evening activities of cultural, educational, artistic, sports, and other nature, in the Urban Ribbons.

Variety of Courses to Choose From

- **Cultural/artistic course**

On the Cultural Ribbon park visitors will be able to, and encouraged to, dance, sing, and enjoy song, dance music, and appreciation of paintings, sculpture, photographs, etc. In Mi-terra it will be possible to witness traditional dance and taste traditional cooking from throughout Colombia, as part of a cultural/artistic course through the park. It will be feasible to cover the entire course in one day, or to take several days to cover it thoroughly. For those who wish to enjoy classical drama or opera, such opportunities will be provided at the Teatro de Opera in the Urban Complex, and for those interested in religious art, there is the Religious Museum.

- **Educational course: Historical/scientific**

Explanatory panels along the Chronological Ribbon, lectures by scholars, and other means will enable visitors choosing this course to acquire a better appreciation of Indian culture and the meaning of the struggle for independence. By next passing from the Actual Ribbon to the Youth Ribbon, visitors will be able to enter the Transportation Museum or Scientific Technology Museum, and become more interested in and modern science and technology.

It is also possible for visitors to follow a course which emphasizes the natural sciences by going from the Natural Ribbon to the Jardin Botanico.

Those particularly interested in details of the history of Colombia may enjoy a visit to the Historical Museum.

- **Sports/athletic course**

Members of the general population, and youth in particular, will be able to enjoy a sports/athletic course, by going either from the Sports Complex to the Athletic Road on the Youth Ribbon or from the Youth Joy Plaza by means of the field athletic course to the north and across a pedestrian bridge to the Sports Complex.

For marathons, jogging, and various other races, the Urban Ribbons (8 km roundtrip), or the nature course from the great lawn at the 110 ha area to and in the forest, or a circular course around the 350 ha area, may be used at the discretion of the persons involved, affording an opportunity to enjoy park scenery on the way as the course is covered.

- **Weekend Family Course**

Families will be able to enjoy picnic lunches on the 110 ha lawn, view the panoramas in the Historical Museum, see historical relics and treasures, stroll through the Ceremonial Plaza, go through the Urban Ribbons, and visit the Amusement Center, for an ideal course for visitors who have come to the park with children. In addition to the pleasure of picnicking in a natural environment, visitors can choose the option of going from the lawn around the lake to the forest, where they can enjoy the singing of birds and insects, and then proceed to the lake for boating.

- **Sightseeing and strolling**

Young lovers, old folk, and others, alone, in pairs or in groups, have many courses to choose from, such as strolling around Parque Lago, enjoying the Gardening Pedestrian of the Cultural, Chronological or Youth Ribbons, circling the 110 ha area's lake, and so on.

- **Events and evening festival course**

Among the events and activities held in the park many will be held in the evening, made possible by special lighting. Evening events will be presented at the Urban Ribbons Urban Complex, Historical Museum, Latin American Anthropology Museum, Mi-Tierra, and Sports Complex.

Fig. - 23 Park Use Plan

Historical/Artistic Course

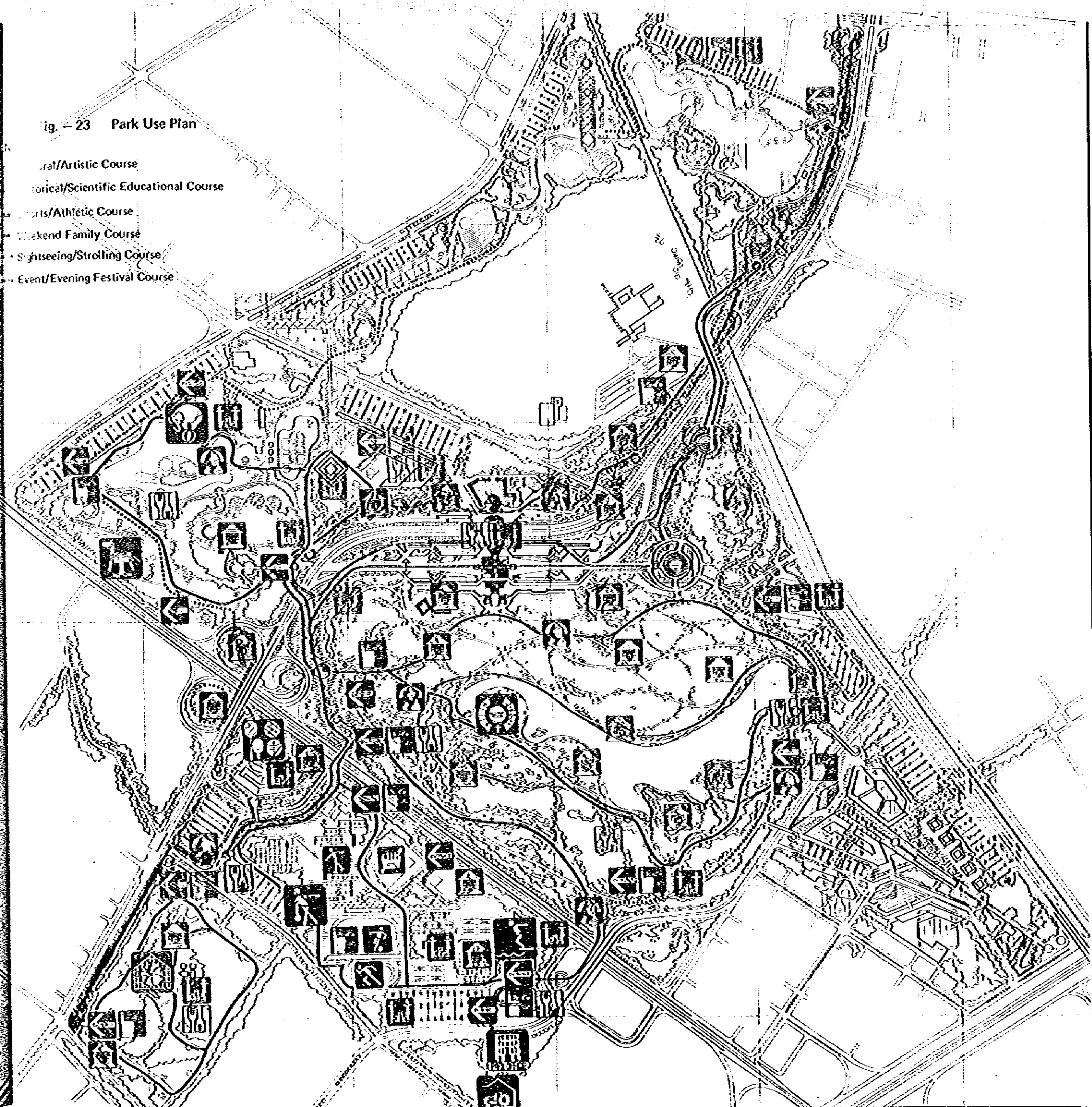
Historical/Scientific Educational Course

Sports/Athletic Course

Weekend Family Course

Sightseeing/Strolling Course

Event/Evening Festival Course



Utilities Network Plan

Fig. - 24 Storm Water Drainage Network Plan

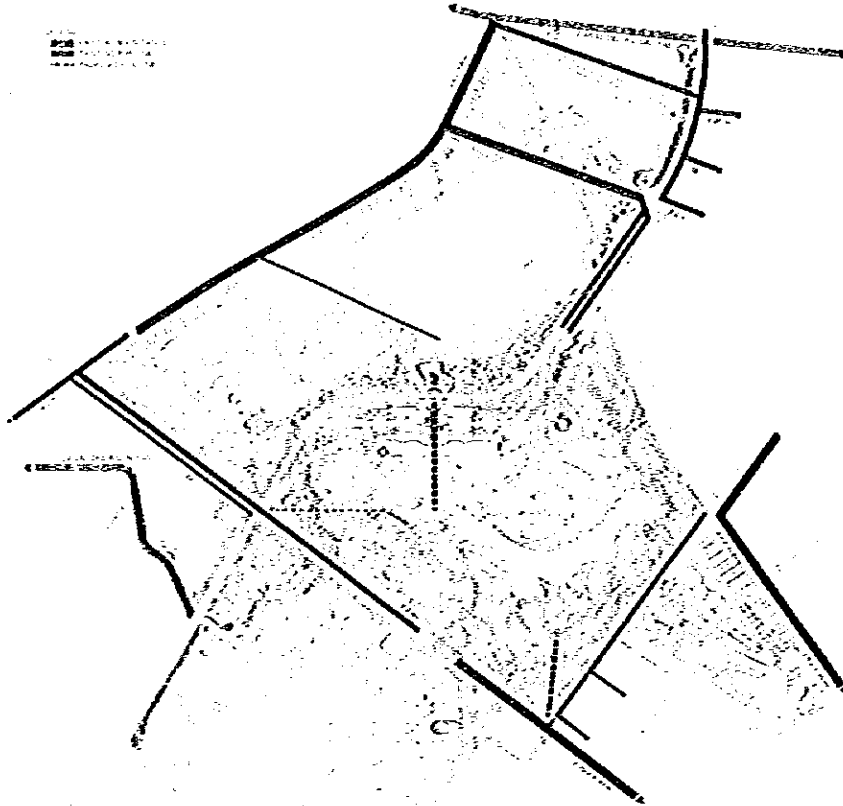


Fig. - 26 Water Supply Network Plan

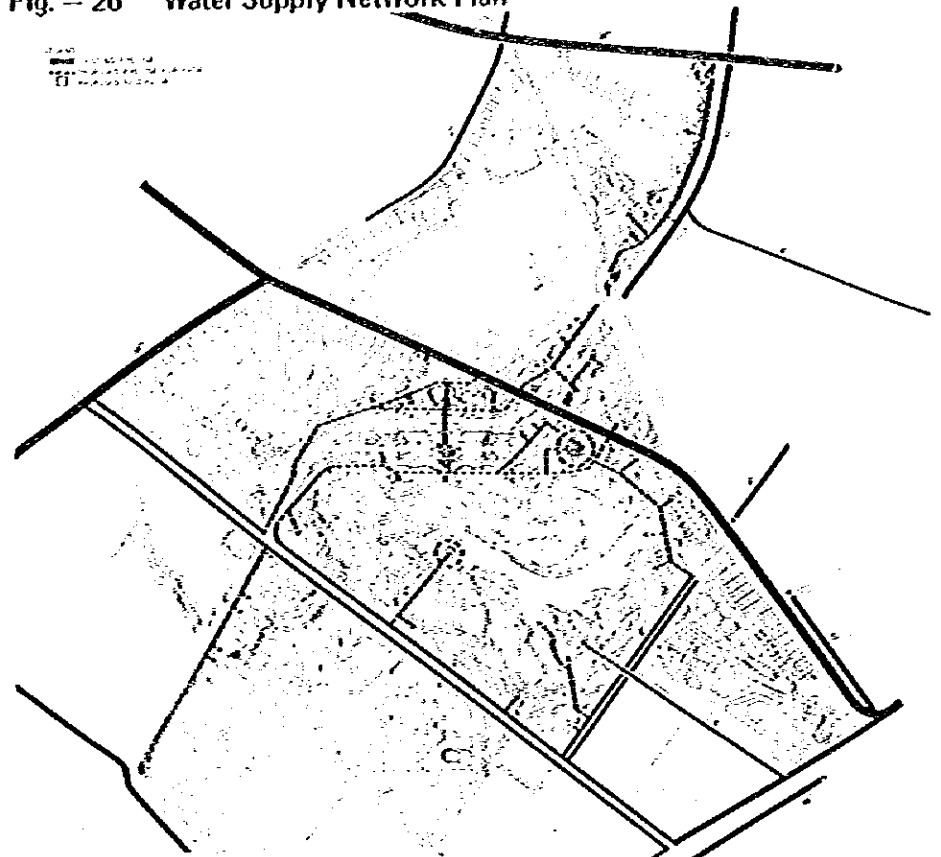


Fig. - 25 Sanitary Sewer Network Plan



Fig. - 27 Electricity Supply and Lighting Plan

