

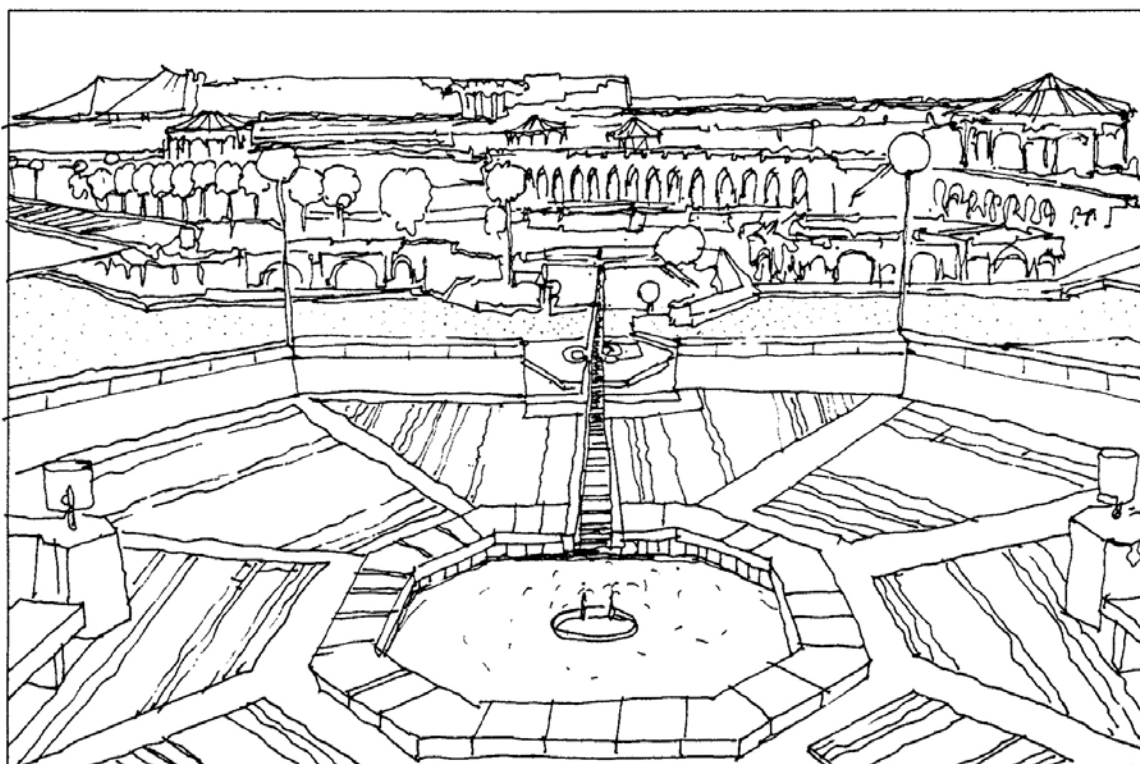


1989 Technical Review Summary
by *Halim Abdelhalim*

0827.SAU

Diplomatic Quarter Landscaping

Riyadh, Saudi Arabia



Architect

Bödeker, Boyer, Wagenfeld & Partner GmbH
Düsseldorf, Fed. Rep. of Germany

Client

Riyadh Development Authority
Riyadh, Saudi Arabia

Completed

February 1986

I. Introduction

The landscaping of the Diplomatic Quarter (D.Q.) is one of the most significant features of this newly planned and developed community in Riyadh, Saudi Arabia. Occupying a total of 150 hectares of land, or about 25% of the total developed area, the landscaping of the Diplomatic Quarter is arranged in two major categories: intensive landscaping, defined as areas requiring irrigation (sprinkles or drip), and divided into private and public parts. The public part of this category occupies some 60 ha. of heavily planted and formally designed gardens, paths and walkways and public playgrounds. 17 public gardens, vary between large neighbourhood gardens to tiny playground and are organised into a green network which ties the entire community, reflects its functional as well as its social structure, and connects its fabric to the natural areas around the site.

The second major category is the Extensive Landscaping, occupying some 90 ha. defined as areas on the periphery of the built zone, receives minimum irrigation or none at all. Earth berms and artificially created valleys (*wadis*) and basins collect surface water run off from roads and drainage from intensively irrigated areas. The extensive landscaped areas are linked to the rest of the open space network through a series of green fingers and tiny gardens which help in creating transition from the more lush and heavily designed intensive gardens to the more rugged and natural landscaping on the periphery.

Considered as the most elaborate landscape project developed in the Middle East, the landscaping of the Diplomatic Quarter in addition its developed formal quality, acts as a very effective device for the transformation of the local culture of the Saudi Community.

II. Context

a. Background

The area designated for the new Riyadh Diplomatic Quarter comprises some 580 ha. of open desert land situated on the north-western outskirts of the City of Riyadh at a distance of about 8 km from the city centre. The site stretches along the Daraiyah road over a length of 3 km and is bounded by Wadi Hanifah to the west.

"The site and its surroundings are desert land; the landform of the area is characterised by the vast expanse of the flat plateau, precipitous escarpment of the Wadi Hanifa and the latter's tributaries which flow into the valley to form one of the most interesting topographical features in this area" (Master Plan Report).

b. Local Character

The unique site of the Diplomatic Quarter offers distinct natural and man-made features affecting the landscaping of the Community as follows:

- Cliff edge from north is a harsh and rugged lime stone formation, overlooking the Wadi, providing a natural boundary to the site. Two deep ravines cut through the rough edges linking the site plateau to the bottom of the valley.
- The valley itself viewed from the northern site boundary contains a rich variety of vegetation, mainly palm groves, few traditional settlements and traditional stone structures.

- Overlooking the southern ravine, the density of the palm groves are intensified and the contrast between the stone edge and the Wadi is sharpened.
- The escarpment looking north, overlooks from a distance the village of Arqah, a traditional mostly brick settlement, beautifully situated in dense palm trees and resembles the wealth and beauty of old Waid Hanifa, now seriously threatened by ecological imbalance.
- The middle ravine, almost two-thirds along the west side of the site edge, opens to a more rugged and less planted area of the valley.
- Approaching the site from north through the main freeway (Daraiyn Road), the experience is quite contrasting. Super freeway with tracks of empty desert land open for development, presents the common and prevailing model of development with its bare on harsh landscape.
- Architectural and developmental features in the context of the Wadi provide a much more interesting character even in the case of modern development as seen in the road descent at Arah, where the dense groves of palm trees surround the road and offers intensive and cool feeling.

c. *Climatic Condition*

"The climate of Riyadh is characterised by scanty rainfall with an annual mean of slightly above 100 mm; an extremely high summer temperature reaching a maximum of 46°C; comparatively low relative humidity (summer mean: 20%).

This constitutes an arid desert environment where the rate of evaporation is higher than the annual rate of precipitation. Hence the paradox posed to any landscaping project in Riyadh is that precipitation is insufficient and intensive planting has to be sustained by irrigation" (Master Plan 1978).

The Master Plan of the Diplomatic Quarter suggests several means to improve the micro-climate of the site, all of which became bases for, and were reflected in the landscape planning and development.

e. *Topography*

Topographically, the site is part of a generally flat plateau whose mean elevation is 640 meters above sea level. The landform is however varied: the plateau, from its highest point in the south-western corner at 665 m, gently slopes in a north-easterly direction and there is an altitudinal difference of some 30 m; the average slope gradient is 2% (Master Plan 1978).

The land drains both westward to Wadi Hanifa where the two main ravines act as natural flow channels eastward.

III. Description

a. *Conditions for Programming*

The Master Plan established the overall orientation to the landscaping of the Diplomatic Quarter, by first: evaluating the commonly accepted and used concepts of landscaping in most cities in the Middle East. Concluding that:

- "Westernised" concepts of urban green space which have become a costly feature in many Middle Eastern cities are as much the wrong objective, as the other extreme of a settlement void of trees and plantings.
- An environmental objective is to economise on the use of water.
- The urban fringe areas should play a particular role as protective barriers against strong winds and dust infiltration.
- Pedestrian network, properly designed and sheltered so as to create shade and protection from sand, noise and glare, can help reduce "unnecessary" traffic.
- Car traffic is a cause of air movement and dust pollution and should therefore be as limited as possible in environmentally sensitive areas.
- Street systems which are environmentally functioning avoid any long or broad streets, but aim at streets with staggered alignments and blocks kept short.
- The surrounding low lying *wadis* have a ventilation effect on the site which the settlement form must take into account.

b. *General Objectives*

Stated in the Master Plan and asserted by the client, the general objectives of the landscaping of this new community can be outlined as follows:

- The landscaping of the Diplomatic Quarter must accommodate the social as well as the ecological and aesthetic requirements.
- All areas inside the built zone should have a natural "soft" landscape. Micro-climatic conditions should be created by careful grouping of buildings.
- Pedestrian network and play area should be provided as a system of intercepting pedestrian routes, forming a network of spaces.
- Walking should be based on hierarchy of services and micro-climatic conditions.
- Tree planting along main streets.
- Areas for extensive afforestation should be provided to give protection against noise pollution and to improve micro-climate, and to keep out grazing animals, especially goats, from the area.

c. *Functional Requirements*

Identified from the Master Plan Study on the Landscaping of the Diplomatic Quarter:

Socio-Ecological Requirements

A network of landscaped areas is suggested to provide for the socio-ecological requirements. The starting poles of this network area: the Diplomatic Club and the public park in the northern part, and the Sports Club in the south-eastern part of the site. Footpaths connecting all elements together and to the Wadi are to be part of that socio-ecological system. Architecture and urban design of these elements are expected to respond to the requirements.

- Total area of these requirements: 300'000 sq m

Green and Open Spaces

20% of the private residential areas are proposed for the green open spaces: a total of 150'000 sq m are proposed for this area.

Pedestrian Network

3-6 m wide paths are proposed for the pedestrian network. 8 ha for playgrounds on basis of 4 sq m/person, arranged in three categories:

- Central Playgrounds:
within 15 minutes walk 4 units with total area of 40'000 sq m
- Neighbourhood Playground:
within 5 minutes walk 20 units with total area of 20'000 sq m
- Small children/mothers:
within 2 minutes walk 100-200 units with total of 20'000 sq m

A grand total of 80'000 sq m

Tree Planting

Tree planting for the Embassy Boulevard, roundabouts, and the main roads to be planted with palm trees in the form of raised platform. The area of this category is about 50'000 sq m.

Extensive Landscaping

The remaining areas of the site, including areas between built areas and the open landscape, should be afforested with native landscape. Earth berms of 10 m width and at least 100 m long should be provide at the edges adjacent to the freeways.

Nursery

A nursery of at least 5 ha containing cool houses and propagation beds. Cultivation, fertilisation and irrigation. Shade and cover beds are to be provided.

d. Project Data

As implemented, the landscape plan provided the previous functional requirements within the framework of the objectives as follows:

- Two thirds or about 40 ha. of the intensive landscaping have been completed and in operation since 1985. A total of 17 gardens varying in size between the neighbourhood park to the tiny playground garden of 200 sq m.
- Formal gardens are developed within three categories:

Neighbourhood gardens: 5 neighbourhood gardens have been executed, the size of each is roughly one ha. Each garden contains three essential components.

A formal garden designed around a water feature(s), and draws its basic design principles from the traditions of Andalousian Gardens.

A shaded tree grove along the character of the oasis, with green lawn and seating.

A play area equipped with a variety of games, equipment, etc...

The neighbourhood gardens are co-ordinated through a well-designed portal and shaded arcades, which define each of the 3 different components as well as the relation between them.

Small gardens: 11 small gardens located along the edge of the residential area, link the bulk of the urban mass to the extensive landscape, whether on the earth berm side or on Wadi Hanifa side.

The public park and the nursery

Within the completed residential areas, most of the pedestrian paths have been completed, with provision for shade and with the tiny "playgrounds" scattered around them.

Even in areas where the residential development has not started or still is in an early stage, the tiny garden; (children and mothers' garden) have been located and developed to act as poles which attract the development.

Over 10'000 palm trees have been planted with the road-scope, shading the main boulevard, main collector and distributor roads.

Three of the four earth berms have been completed defining the north east edge and the south-east edge and the south-east edge of the site. Fully developed with plants and many attractive features, using rock formation and indigenous landscaping. The entire development of the Wadi Hanifa's edge has been completed.

The public park and the nursery is now being completed and in operation.

e. *Evolution of the Design Concept*

Four phases can outline the evolution of the concept with regard to the physical constraints:

The Master Plan

5 basic features account for the Master Plan's formulation of the Landscaping of the Diplomatic Quarter:

- The basic concept selected for the Master Plan was influenced by land forms and contains clear landscaping orientation. The central spine on which the embassies and the core of the district are located follows the contours of the site, staying on flat terrain for the major urban land uses and main circulation routes.

The urban form opens at two points to integrate the two strong natural features of the land, the middle and southern ravines that cut deep into the plateau, providing dramatic vistas and excellent sites for major elements overlooking the Wadi. The urban pole and centre of the bent arrangement is anchored on the middle ravine, a 30 m fall from the plateau that marks these visually most interesting topographical features; this also shaped the urban layout and form.

- **Land Suitability:** The land found unsuitable for urbanisation, viz land susceptible to erosion, poor slope, drainage or soil conditions, has been proposed for extensive landscaping. Only inner-urban green areas will be intensively landscaped chiefly with tree planting.
- **Water:** Scarcity of water resources and the problems of maintenance of public open space have been accounted for in the design. Concentrated green space has been considered as an appropriate answer to match maximum user versatility, to economic feasibility and costs of up-keep.
- **Plants:** Planted berms along the freeways have been proposed as a means to screen the urban areas from traffic noise and air pollution, and the land for building has been set back from the freeways.
- **Townscape:** major townscape features are focused towards key landscape elements, such as the *wadis* and the cliff edge, and maximum use has been made of the north-east slope of the site.

Landscape Study

A specific landscaping study was later developed in response to the general direction of the Master Plan and to articulate the two main categories; the intensive and the extensive landscaping.

At that stage, the client was advised by an external consultant to change or abandon the idea of the landscaping as a network, which was strongly advocated by the landscape consultant on the Master planning team. As a result, large neighbourhood gardens replaced part of the network idea.

In later detailed design stages, the landscape consultant insisted on the validity of the idea of the "network" and demonstrated its success to the client through some workable examples in West Germany. As a result, the southern part of the plan was developed as intended along the idea of the landscape network.

Detailed Study of the Landscaping

A more vigorous development of the detailed landscape planning was based on the assertion of the concept of "network" within the context of the Najd landscape as follows:

- The palm tree was taken as a reference and was understood as part of an overall ecological model which summarises all the attributes of natural balance in Najdi region.
- Building heights were not to exceed the height of palm trees.
- Fenced development to exclude grazing.
- Green network represented an ecological example to bring into the urban community awareness of the rules and life processes of different natural communities: plants, animals, etc...
- Private lots were suggested to be sold with their planted trees.
- Street planting follows the level of movement and the nature of traffic.
- Play gardens respond to the walking distance.

Rethinking the Landscape: Recovery of the Indigenous Character

The landscaping of the Diplomatic Quarters as described so far has been an integral part of the whole planning process. Yet an extremely interesting development took place in a later stage of planning. The client became aware of the significance of the landscaping not only on the site of the project, but on the regional level as a whole.

State subsidies allowed Bedouins to expand their herds, and to resort to mechanical digging of water wells and tanks. The result is over-grazing and hungry consumption which destroyed all living plants in an area of about 100 km around Riyadh. The consultant demonstrated to the client the effect of this recent development on gardens and the ecological balance of the areas around the site.

The client, advised by the consultant, agreed to use the project as a catalyst for the restructuring of the ecological balance of the area.

Seed collection of authentic plants from the deteriorated region was systematically undertaken. Replanting in the project nursery helped to recover more than 350 plant species. Over 250 animal and bird species were also saved or regenerated.

Hence an overall concept of planting as part of the implementation process took place. A decision to reorganise the process around the stage of landscaping was taken.

The response of the people of Riyadh to all stages of this process has been remarkable. Thousands of people from Riyadh have been actively and emotionally attached to the process in all of its phases; as if they are seeing in it a restoration of a sacred code of their life.

Response to Users' Requirements

More than any other aspect of the Diplomatic Quarter, the landscaping responds well to the users' needs and requirements on a variety of levels:

Integration of the Community into the Socio-Cultural Environment of Riyadh

Intensive and extensive elements of the landscape are widely used by the entire community of Riyadh. Individuals, families and large groups of all sorts of backgrounds and status from Riyadh metropolitan area are now using every element of the landscape of the Diplomatic Quarter.

Social and Cultural Preferences

Thoughtful and organised diversity of the open space options met the tremendous social and cultural diversity of the seemingly unanimous Arab Community of Riyadh. The extremely unified code of conduct in Riyadh, whether in appearance or in manners and behaviour, conceals behind it differences in social and cultural origin and hence variety of preferences.

The park, as conceived by the client and developed by the designer, represented an ingenuous framework for the unfolding of this restricted code of conduct. A rich variety of patterns of social and leisurely activities - which were hardly part of the present public landscape of Riyadh, can be seen everywhere in the 17 completed gardens, as well as in other parts of the intensive landscape.

Families of different ethnic background gather in the parks that suit their preference. Khozama park for instance with its open oasis and generous lawns and terraces is always occupied by Egyptians, Syrians and Palestinians, enjoying the interaction in large and fairly unrestricted grouping. While in Al Jajer Garden, with its limestone and desert configuration, the more traditional Saudi families gather in small tight family grouping, very protective and closely guarding their privacy.

Countless examples unfold daily, at the weekends and in the holidays to attest to the remarkable encounter between the people and the landscape of this new community.

- Foreigners are at Home: the international community although not using the public parks intensively, are clearly at home with the extensive landscape. Earth berms are common and very admired places for picnicking, bicycling, jogging or simple hikes. The Wadi edge is also a remarkable place for those who are seeking seclusion, contemplation and sports.
- Children and Mothers: not only in the tiny and designated playgrounds for children, do mothers enjoy the security and freedom for their children, but literally the entire network of paths and gardens is used with intensity and appropriation by mothers and children. It is common to see several mothers sitting on the grass along a footpath with children utilising the shaded path as a setting. Playgrounds are as well extensively used.
- The Spatial Organisation of the parks briefly described in III.d. is, to a great extent responsible for the highly successful encounter between the people and the place. Three main features account for this success:

Clarity of boundaries: since most, if not all, intensive landscaping are bounded by walls, trees, shrubs, or rock formation.

Diversity of spaces, between the formal gardens and the informal oasis and playgrounds.

Use of water as inspiring focal points.

Purely Formal Aspects

Several formal aspects of the landscape designs have been covered in the previous sections of this report, yet, there are some very specific aspects that need to be stressed here:

- Palm trees lined up in rows of pairs along the bent boulevard create a majestic, yet familiar space; a noble urban space which combines the modern technologies and amenities with the sense of authenticity of the Oasis.
- The immense dimension and massive but well articulated configuration of the earth berms do not only serve their environmental function, but have already developed a lasting image and a powerful association with mountain climbing and its challenge.
- The natural treatment of the Wadi edge and the awesome handling of these giant rocks have magical effect. Formation which approximates the natural forms and at times contrasts them in remarkable rock art, evokes a sense of pride and association with the great collectivity that generated this work.
- The contrast between the grandeur and monumentality of the extensive landscape and the elegance and fragility of the gardens is touching and very beautiful. It brings the experience of the Diplomatic Quarter as close as possible to a timely developed and mature environment.
- Portals, seats, fountains, arcades, light fixtures, etc., were done with considerable thought and care. The bench developed for the Diplomatic Quarter is now widely known and marketed world-wide as the "Riyadh Bench".
- Pavement patterns and materials are very sensitive and original. Utilising growing local industries, many innovative patterns relying on this industry have been developed and used for the parks. Some of them are becoming known outside of Riyadh and abroad.

f. Structure, Materials, Technology

This section will be covered in detail in the Technical Review Report by a special landscape consultant.

IV. Construction Schedule and Cost

Same as above.

V. Technical Assessment

a. Functional Assessment

All elements of the landscape have been successfully serving their function. What is more important is the way in which these places have helped to enhance the activities they were planned to serve.

Strictly functional aspects such as irrigation and drainage are working extremely well.

b. *Climatic Performance*

Intensive, as well as the extensive landscape helped to create in reality a micro-climatic condition which is appreciated by the people of the community and of Riyadh.

c. *Choice of Materials*

One of the most significant aspects of this project is its pioneering work in recovering hundreds of the endangered species of plants, animals, birds, and to allow them to grow again in the gardens and the landscaping of the community.

This is not a mere romantic dimension, but an operation of a most significant consequence; the most apparent of which is the possible reversal of the process of desertification of the Najd region. More significant is a possible shift in the awareness and consciousness of the increasingly urbanised people of the city.

The wisdom and the originality of this work goes beyond the use of local plants, to all materials in the creation of the intensive as well as the extensive landscape. An exception may be the use of metal tubes and mesh for the roofing of the arcades in some of the parks.

d. *Ageing and Maintenance*

Extensive landscaping has a timeless character. Earth berms and rock formation at the Wadi Cliff provide the community with ageless and lasting feeling. The more planting on the earth berm the more they are stabilised and gain authentic character.

Continuous maintenance is required and is actually available for the intensive landscaping.

e. *Design Features*

Despite the great deal of variety exhibited in the design of the different parks, a clear and fairly developed system of design has been employed. Described before in Section e.3 of this report, the three main elements of this system: i.e., the formal gardens, the oasis, and the play areas, interact in so many variety of ways, which make the network active and harmonious.

VI. Users

An account of users' response to the elements of landscape is given in Section e.2 of this report. However, to account for the groups of users will be a matter of impressions based on observation. Factual data was not available during the Technical Report.

The Client's Response to the Project

- The client, the "Riyadh Development Authority", began as a one-man office to oversee the process of transferring the foreign community from Jeddah to Riyadh. Now grew to 240 persons.
- The growth of his organisation is part of the growth of the work and is shaped by its context, and activities, hence the client comments on this project are seen in the context of its process of development in as much as in its physical reality.

- Three significant aspects are important to the institutional side of this project as cited by the client:
 - The relation between an able and competent consultant and the Authority.
 - The capacity to work as a team with the consultant.
 - Preparation and dissemination of information.
- The process of landscape design and implementation allowed the client to identify the central role the landscape can and does play in the planning of the community. The experience of identifying the level of competence of the Consultant itself became a learning experience for the client.
- The experience of working with Consultants as a team also was one of the most rewarding experiences, especially in identifying the character of the landscape and in searching for indigenous plants, species, etc... In fact, it was this experience that allowed the client to develop an overall programme for national and regional parks, now into early stage of implementation.
- the project, its organisation and implementation was an opportunity for the client to build up his organisation and to develop a capacity to deal with such complex issues.
- From the landscape point of view, the client insisted from the beginning on having a landscape planner within the Master Plan team. The client also affected the direction of the study by establishing the basic philosophy and character of the landscape: to be a community in the desert: a desert landscape.
- The client defends the large gardens decision (the neighbourhood gardens) stating that he forced these gardens on the planner, who believed that they are oversized. The client argument is partly supported by the actual use of these gardens.
- The use of gardens by different sectors of the community was a basic concern of the client, and his feeling was achieved.
- The local Saudi Community is a conservative one, hence the client was clear in establishing the overall character of gardens as a landscape which is private within the framework of traditional cultures. This is also achieved from the client viewpoint??
- The gradual building of the gardens allowed an important process of social and psychological development to take place. Established patterns of behaviour are gradually shifting to more relevant and open attitudes.
- Overall, the client is very proud of the experience and its results. He considers the "Authority" as a true partner in the conception and the design and not only a client. The great symbols of this active participation are:
 - The creation and maintenance of a remarkable nursery, which is the pride place of the client and the community.
 - The adoption of the palm tree not only as a symbol of the nation, but as a model of development and mutuality of existence between the Najd people and the palm tree.

VII. Persons Involved

Client

Dr. Mohamed Al-Sheikh	The Riyadh Development Authority in charge of the Administration of the landscape programme and the nursery, and all stages of the process	President
Zahir Othman Abdel Rahman Alsunny	Administration of Conceptual phase	Staff Arch. Staff Arch.
Abdel Wihab Al-Khadivi	Administration of Construction phase	Staff Eng.

Landscape Architects

Principal partners in charge of overall co-ordination and design:

- Richard Boedeker, Master Plan and General Co-ordination.
Special design responsibilities: D.Q. Public Park (with R.H.C.)
Extensive Landscaping & Earthberm
Housing Area C + D, Intensive landscaping C + D.
- Horst Wagenfeld, Managing Director of BBW.
Special design responsibilities: Extensive landscaping + Earthberm A B E
Intensive landscaping A B E.

Partners in charge of special tasks:

- Armin Boyer (not involved in the company since 1983).
Special design responsibilities: Cul de Sac.
- Vilmos Kren, Master plan Extension Area C + D.
- Klaus Steinhauer, Construction documents, specification, project evaluation and supervision.

Employed Study Director:

- Jurgen Baer Study Director, master plan and implementation.

Abdelhalim I. Abdelhalim
Cairo, 16 June 1989



1989 Technical Review Summary
by *Jellal Abdelkafi*

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I. Les intentions et les objectifs

Le Gouvernement Saoudien a manifesté l'intention, en 1977, de créer à Riyadh, capitale du Royaume, un quartier des missions diplomatiques.

Ce quartier, conçu comme une entité urbaine indépendante du reste de la ville, a fait l'objet d'une démarche de planification générale et préalable conduite par "la haute autorité pour le développement de la ville de Riyadh". Le plan directeur, finalisé en 1984 par un groupement d'urbanistes et d'architectes-paysagistes, a eu pour objectif primordial l'intégration des espaces construits dans un paysage artificiel créé ex nihilo dans un cadre naturel désertique.

Le paysage créé répond aux finalités suivantes:

- délimiter la nouvelle communauté urbaine dans une zone de protection végétale (extensive landscaping);
- offrir aux utilisateurs 16 jardins individualisés selon des thèmes récréatifs (intensive landscaping);
- organiser des corridors plantés assurant des liaisons végétales pour les piétons entre les masses construites (green fingers);
- souligner la hiérarchisation des voiries par un système de plantation d'arbres en tige et de buissons qui définissent l'espace.
- suggérer l'impression de vivre dans une oasis dans le club pour diplomates (Ksar Touig).

II. La description du site, les données climatiques

Riyadh est situé à 26°40' de latitude, à 580 m au-dessous du niveau de la mer, au cœur d'une région désertique, le Nadj, couvert de dunes de sable et de caillasses.

Le climat de cette zone aride se caractérise par des étés torrides (température comprise entre 41° et 46°C de Mai à Septembre) et secs (humidité de l'air inférieure à 20%); pendant la saison chaude les vents dominants soufflent du Nord, du Nord-Ouest ou du North-Est. Les hivers sont doux (température de l'ordre de 20°C); cette douceur est parfois interrompue par des froids passagers (température comprises entre 8° et 2°C; les printemps, quand il y en a, sont très brefs. La pluviométrie, très faible, est comprise entre 35 et 100 mm par an.

Le quartier des missions diplomatiques est situé sur un plateau dominant l'oued Hanifah. Dans la vallée pousse une végétation naturelle à base d'acacias et de légumineuses. Le tamaris se développe particulièrement bien, de même que le palmier de caractère forestier. Le phoenix dactylifera est cultivé dans les oasis ou bien dans les palmeraies organisées (les arbres sont alignés).

Le terrain du quartier des diplomates forme un triangle de 700 ha; deux branches d'autoroute (Salbouq et Hijaz freeways) l'enserrent au Nord-Est et au Sud-Est; les gorges de l'oued Hanifah le délimitent à l'Ouest.

III. La définition du concept

Les formes extensives et intensives du paysage du quartier des missions diplomatiques constituent un concept d'aménagement que le Cabinet Boedeker-Boyer-Wagenfeld & Partners a proposé, développé et réalisé sans toutefois en fournir le discours justificatif.

Pour évaluer ce projet, il est nécessaire de se demander comment l'architecte-paysagiste a défini son concept: pour ce faire, il faut démonter, à partir du résultat, la problématique de création d'un jardin intégré à une opération d'urbanisme dans la société saoudienne contemporaine. Cette interrogation est implicitement formulée par le jury dans ses recommandations pour l'enquête sur le terrain; elle nécessite, pour être satisfaite, un bref détour théorique.

Landscaping et architecture paysagère sont les expressions anglaises et françaises qui traduisent les aspirations de cette seconde moitié du vingtième siècle en matière de nature. A l'heure de l'urbanisation de masse, que désire-t-on aujourd'hui, un jardin ou un espace vert ? Et au moment de l'affirmation de la civilisation des loisirs préfère-t-on visiter un parc d'attractions - un Disneyland - ou un jardin historique ? Pour répondre à ces questions, il faut prendre la mesure de ce que signifie la nature dans la ville.

La présence de la nature dans les espaces habités est, bien sûr, vieille comme le monde, et la plupart des civilisations ont, chacune dans leur environnement particulier et en fonction de leurs propres valeurs, inventé un art des jardins.

Le terme de jardin - le plus simple et le plus ambitieux puisqu'il connote et l'idée de nature et l'art de la magnifier - a toutefois vieilli; il évoque des valeurs désuètes, celles "du plaisir des plantes, des sources, des doux zéphyr, des fleurs et du chant des oiseaux" (Libanios, 314 V 393 après J.C.); il fait penser aux joies des retrouvailles de l'homme dans un Eden privé, privilège de plus en plus exceptionnel dans la société contemporaine. Et quand on parle de jardin, on se sent désormais obligé de le qualifier par rapport à sa fonction: le jardin est public pour bien préciser que la nature inventée par l'homme est au service de tous les hommes... Quant à l'art des jardins, il a été pénétré, comme toute chose, par la modernité; il en connaît désormais les grandeurs et les servitudes; elles ont pour nom unique: l'éclectisme.

Concevoir un jardin est désormais une entreprise redoutable car l'architecte paysagiste est sous influence: les jardins historiques peuplent et notre mémoire et notre imagination; il est également sous la pression des demandes de sociétés à évolution rapide - un jardin se dessine avec le temps, complice ou allié.

A ces éléments de problématique générale s'ajoutent pour le cabinet Boedeker-Boyer-Wagenfeld deux thèmes majeurs propres à l'Arabie Saoudite: ceux du désert et de l'Islam.

Le thème du désert

Le désert s'impose, tout d'abord au concepteur comme difficulté technique: zone aride, sol dégradé, bioclimatologie peu généreuse. Mais cette nature hostile a, malgré tout, subjugué le bédouin, forcé son admiration et stimulé son imagination. Le concepteur doit tenir compte des rapports d'attraction-répulsion des Arabes avec leur désert. La poésie des siècles passés en témoigne; les comportements actuels des saoudiens également.

Le thème du jardin islamique

Avant d'être arabes ou persans, moghols ou turcs, les jardins sont d'abord islamiques. La source d'inspiration est dans le Coran où "il est dit qu'après la mort les croyants vont dans des jardins riches de tous les délices dont peuvent rêver les habitants des régions désertiques brûlantes". Le paradis - contre-image du désert - est un jardin aux arbres à ramures généreuses offrant des ombres douces, aux ruisseaux de nectar, aux fontaines sans fin, aux fruits abondants:

- "Voici la description du jardin promis
à ceux qui craignent Dieu.
Il y aura des fleuves dont l'eau est incorruptible,
des fleuves de lait au goût inaltérable,
des fleuves de vin,

délices pour ceux qui en boivent,
des fleuves de miel purifié.
Ils y trouveront aussi toutes sortes de fruits
et le pardon de leur Seigneur".
(*Le Coran*, Bibliothèque de la Pléiade, p. 630)

Les nombreux jardins islamiques réalisés de la pointe de l'Arabie au Maghreb extrême en passant par la Sicile et l'Espagne, représentent - symboliquement - le paradis: les terre-pleins sont découpés en quatre parties par des fleuves d'eau, de lait, de vin et de miel). On retrouve cette symbolique dans les tapis persans (voir notamment celui du 18^e siècle conservé au Victoria and Albert Museum).

Comment le concepteur des jardins du quartier des missions diplomatiques a-t-il pris en compte ces deux thèmes ? Comment a-t-il répondu aux besoins du personnel des missions diplomatiques et aux aspirations d'une société saoudienne dont la vie quotidienne est puissamment rythmée par la religion d'une part, et qui d'autre part dévore les symboles, sinon les gadgets de la modernité ?

A ces questions, je réponds, sans plus attendre, que les jardins du quartier des missions diplomatiques sont une incontestable réussite tant du point de vue technique qu'esthétique, social et politique. On peut affirmer que le cabinet Boedeker, Boyer, Wagenfeld & Partners a parfaitement maîtrisé le concept d'aménagement: il a su répondre aussi bien aux besoins des diplomates que des habitants de Riyadh; il a exprimé avec talent le thème du désert sans faire décor; le thème du jardin islamique est présent sans plagiat des grandes créations historiques, ni renoncement à la fonctionnalité.

IV. La description des jardins et la méthode de composition

Pour éviter une description bavarde ou une évocation littéraire, je propose aux membres du jury de consulter le reportage photographique. Je vais par contre, essayer d'expliquer la méthode de composition.

a. *Extensive landscaping*

En bordure des deux branches d'autoroute et le long de la falaise qui domine l'Oued Hanifah, l'architecte-paysagiste a créé un paysage empruntant aux conditions naturelles du désert; mais ce n'est qu'un emprunt car il ne l'a ni copié ni reproduit. Ce paysage comprend:

- les mouvements de sols qui constituent des écrans de protection contre le bruit des autoroutes;
- les talus de rocaille avec cuvette pour plantations de plantes tapissantes;
- les enrochements à mi-pente;
- les oueds artificiels pour recueillir les eaux de surface;
- les cheminements;
- les points de vue panoramique;
- les aires de repos et les coins de pique-nique;
- l'aménagement des falaises de l'oued Hanifah.

Les plantations sont limitées aux seules zones fonctionnelles, le reste du terrain est laissé libre sous forme d'enrochements ou de caillasses. Les rochers sont utilisés, avec pertinence, pour souligner les lignes de pente, marquer les points de vue panoramique. L'architecte-paysagiste a su utiliser rochers, cailloux et graviers pour réaliser de véritables architectures de pierres posées; il a

su également utiliser la falaise de l'oued Hanifah pour y inscrire posées; il a su également utiliser la falaise de l'oued Hanifah pour y inscrire des cheminements qui constituent de véritables sculptures. La roche est souvent travaillée en creux pour dégager des aires de jeux ou des placettes.

b. Intensive landscaping

Les huit jardins à thèmes sont situés en bordure de l'oued Hanifah; ils ont pour noms:

- Tree garden
- Hedge garden
- Diplomatic garden
- Terrace garden
- Sunset garden
- International picnic garden
- Wadi garden
- Midnight garden.

Le long de l'autoroute Salbouq deux jardins:

- Terrace play garden 1
- Terrace play garden 2.

Le long de l'autoroute du Hijaz deux jardins:

- Hadiqat al athal
- Hadiqat al Talah

Les quatres jardins de voisinage situé au coeur des ensembles immobiliers ont pour noms:

- Fontaine plaza
- Sunken plaza
- Palm plaza
- Hadiqat al Maghar

L'architecte-paysagiste a systématisé le vocabulaire architectural nécessaire au traitement de ces seize jardins à thèmes; il ont en commun les éléments suivants:

- | | |
|--------------------|---|
| - les bâtiments | porte et bloc sanitaire
pergola et pavillion; |
| - les plate-formes | mur, muret, escalier; |
| - les sols | pavage de pierre naturelle
pavage de pierre taillée
pavage de pavés auto-bloquants
pierraille gravier
sable stabilisé
pelouse; |
| - l'eau | bassin et fontaine
fontaine à débordement dans des rigoles
fontaine murale
mare
bassin à jets d'eau; |

- le mobilier urbain
 - plots de blocage
 - plots d'éclairage
 - poubelle
 - fontaine à boire
 - grille pour arbres
 - grille de sols
 - grille de clôture
 - bancs et tables;
- les aires de jeux pour enfants;
- les parkings.

c. *Les mailles des plantations intra-urbaines*

Le plan directeur du quartier des missions diplomatiques a prévu deux mailles de plantations intra-urbaines: l'une le long du réseau de voiries automobiles l'autre le long des chemins réservés aux piétons.

Les deux grands boulevards - tariq Abdallah Assami et tariq Amrou Damri - qui assurent la jonction avec les autoroutes (Salbouq et Hijaz), constituent la colonne vertébrale du quartier des missions diplomatiques.

Les profils en travers de ces deux boulevards ont été particulièrement bien étudiés pour permettre la plantation du terre plein central et des trottoirs de palmiers (*phoenix dactylifera*) en alignement.

Les contre-voies - secondaire et tertiaire - acceptent également des plantations d'arbres tiges dans les trottoirs.

La plantation des voiries constitue une maille végétale d'une importance capitale car elle corrige les rigueurs du climat: créer de l'ombre entre Mai et Septembre est une nécessité absolue. Et quand cela n'a pas été possible avec les arbres, l'architecte-paysagiste a eu recours aux pergolas.

Les liaisons piétonnières entre les différentes unités résidentielles ont également été végétalisées: les green fingers constituent une trame verte tout à fait appréciable.

d. *L'oasis du club des diplomates*

Le club des diplomates situé à l'extrémité Nord-Ouest du plateau domine l'oued Hanifah; la judicieuse implantation de ce bâtiment en assure une parfaite intégration au site: il s'inscrit dans le paysage naturel avec une discrétion exceptionnelle. Le mur sinueux de ce bâtiment hors du commun émerge du plateau rocaillieux comme s'il en était le prolongement et, à quelque distance, la silhouette du club se fond dans le paysage désertique. Seules les toiles tendues des tentes attirent l'oeil. L'approche en voiture permet une découverte progressive sans jamais être bousculé par le volume construit du palace: ce sont les palmiers de la cour d'arrivée qui retiennent l'attention, et, à travers les lauriers roses et les bougainvillées, on devine la porte d'entrée. Quelle délicatesse! Le petit bâtiment de la conciergerie qui se prolonge en haie vive, les parkings qui épousent la forme du terrain et qui disparaissent en creux sont remarquablement bien intégrés au site.

Une fois dans la cour d'arrivée, le visiteur a tout autant envie d'entrer dans le bâtiment que de se promener dans les jardins. A vrai dire, espaces construits et espaces plantés forment une telle unité, qu'un sentiment d'harmonie s'impose à vous.

Mais suffise que le visiteur soit sensible à l'odeur de la lavande tapissante ou que son oeil soit attiré par la lumière tamisée par les feuillages des palmiers pour qu'il s'enfonce tout de suite dans les jardins. Tout en se promenant, un autre mot vient sur les lèvres: l'oasis; les jardins sont une oasis dans laquelle on chemine au grès des couleurs, des odeurs et de la lumière; aucun tracé ne s'impose au promeneur. Il ne le découvrira qu'en empruntant cette sorte de chemin de ronde qui grimpe en pente douce sur les murs du palace. Et des terrasses, on peut lire le tracé au sol de l'oasis intérieure et en même temps découvrir les gorges de l'oued Hanifah et les strates rocheuses du plateau.

L'absence apparente de dessin, le sentiment d'être dans une totalité naturelle - une oasis paisible - mais en même temps d'être dans le désert et, de mon point de vue, l'exceptionnelle qualité du club des diplomates. Quelle étonnante performance d'intégrer un volume bâti, somme toute considérable, sans que le visiteur ne s'en aperçoive!

Nous dirons peu de choses des tentes de la piscine, des courts de tennis, sinon qu'ils sont parfaitement conçus.

Nous ne dirons rien non plus du nivellement, des murs, murets, escaliers, éclairage sinon que tout a été très intelligemment dessiné.

L'oasis du club des diplomates est luxe et perfection.

V. Les techniques

a. La création d'un milieu propice

Aussi bien pour les formes intensives qu'extensives du landscaping, l'architecte-paysagiste a choisi de se libérer partiellement ou totalement des contraintes naturelles du sol et du climat: l'amendement du sol (fumures organiques et minérales) et l'arrosage (système de gouttes à gouttes recyclant l'eau usée) permettent la création d'un milieu propice nécessaire à la création d'un jardin. Ce milieu propice est artificiel; sa réalisation relève des techniques agricoles modernes qui sont parfaitement maîtrisées.

b. Le choix des espèces végétales

Le jury s'est inquiété de savoir si les plantes sont d'origine locale ou importée. Elles ont toutes été multipliées et élevées dans une pépinière située sur le site même.

L'inquiétude du jury laisse entendre une autre question: les plantes sont-elles locales ou acclimatées ? Depuis le milieu du siècle dernier, l'endémisme végétal n'existe pratiquement plus en raison de l'introduction dans les zones arides d'espèces en provenance d'Amérique, d'Asie et d'Afrique. Cette naturalisation est réussie au point que l'observateur non averti peut les confondre avec la flore indigène. Le caroubier (*ceratonia siliqua*) par exemple est originaire de la méditerranée mais pousse bien en Arabie. L'architecte-paysagiste a opéré un choix des espèces végétales selon les deux critères suivants:

- utilisation des espèces et variétés de la flore du Najd - résistantes à la sécheresse des sols et de l'air et adaptées à la faible pluviométrie - dans la mesure où elles sont ornementales, comme le palmier (*phoenix dactylifera*);
- utilisation des espèces et variétés acclimatées présentes sur tout le pourtour de la Méditerranée, comme le bougainvillea.

c. *La composition végétale et les techniques de culture*

La composition des végétaux selon qu'ils sont à feuilles caduques ou persistantes, selon leurs ports, selon la couleur du feuillage, des fleurs et des fruits, selon l'époque de floraison est tout à fait remarquable.

L'association des végétaux entre eux en fonction de leur résistance aux vents dominants (formes buissonnantes et tapissantes) est également tout à fait réussie.

Les techniques de culture ont permis de travailler en tige des arbustes buissonnants tels de perkinsonia ou l'acacia.

D'une façon générale, soulignons la qualité de la composition végétale; l'architecte-paysagiste a organisé des spectacles naturels tout à fait agréables et confortables.

VI. Les coûts

Le client n'a pas été particulièrement explicite en matière de coûts; nous n'avons pu obtenir ni le détail de l'investissement ni le montant global. Seule une liste de dix-neuf factures nous a été remise sans plus d'explication (voir annexe). Cette question qui a bien sûr son importance pour le jury ne semble pas avoir préoccupé le client.

VII. L'utilisation des jardins

Les jeudis et vendredis - jours de congé hebdomadaire - les habitants de Riyadh envahissent les jardins. Des familles entières s'installent pour de copieux pique-nique; des groupes d'homme se forment autour du plateau de thé, du narghilé, de l'échiquier et des jeux de cartes; les femmes bavardent entre elles dans une alvéole de rochers ou bien dans les replis d'un massif de buissons; les enfants jouent dans les aires de jeux mais surtout dans les bassins et les rigoles. Les jardins sont utilisés avec intensité, dans une atmosphère détendue.

Le succès de ces jardins tient au fait que l'architecte-paysagiste a su créer les coins et les recoins nécessaires pour accueillir hommes et femmes sans que le regard des uns ou des autres ne dérange. Les différents salons de verdure ou de pierre, les pergolas ou les pavillons préservent la pudeur familiale et satisfont au besoin d'intimité. En un mot, ces seize jardins publics ont les dimensions qui conviennent à la vie privée d'une société profondément religieuse pratiquant une rigoureuse séparation des sexes. En ce sens l'architecte-paysagiste a atteint un des caractères du jardin islamique - l'intimité - en reconstituant des espaces privés, des *horms*, au sein d'une composition architecturale ouverte.

"Le jardin est, toutefois, une fiction construire avec les matériaux vivants, et par là, il ressemble à une pièce de théâtre mais dans laquelle comédiens et décors joueraient chacun son rôle leur vie entière. En cela le jardin ressemble à la société où il faut bien jouer toute sa vie". Si l'on accorde quelque crédit à cette métaphore, les jardins du quartier des missions diplomatiques de Riyadh sont, en partie, le miroir de la société saoudienne. Un sociologue exercé y percevra, en effet, les conduites a-typiques, les écarts à la norme et les tendances d'évolution des comportements: si les familles recherchent l'intimité, elles savent aussi pique-niquer ensemble sur la pelouse autour de la mare; si certaines femmes se protègent des regards, d'autres les affrontent en se promenant dans les vastes espaces des jardins. En un mot si l'encadrement idéologique est puissant, les con-

duites et comportements ne sont pas rigides dans cet espace de loisirs propice à un certain relâchement de la norme: des relations plus détendues, plus libres semblent s'établir dans les jardins alors qu'en ville ces formes de familiarité n'ont, apparemment, pas cours.

Jellal Abdelkafi

Tunis, le 29 mai 1989

Annexe

Les coûts

Riyals Saoudiens

Neighbourhood "A"

Bill No. 02	Fountain Plaza	11'954'847
Bill No. 03	Terraced Play Garden	1'831'184
Bill No. 04	Tree Garden	2'427'736
Bill No. 05	Green Finger "A"	1'056'411
Bill No. 06	Hedge Garden	3'650'051
Bill No. 07	Diplomatic Garden	14'804'835
Bill No. 08	Cul-de-Sacs	1'991'442
	Total	37'716'486

Neighbourhood "B"

Bill No. 09	Sunken Plaza	12'490'168
Bill No. 10	Green Finger "B"	195'327
Bill No. 11	Play Garden	1'228'823
Bill No. 12	Nature Park	4'576'413
Bill No. 13	Cul-de-Sacs "B"	2'630'232
Bill No. 14	Cul-de-Sacs "C"	586'494
	Total	22'307'457

Neighbourhood "E"

Bill No. 15	Palm Plaza	17'928'054
Bill No. 16	Terraced Garden	4'509'504
Bill No. 17	Sunset Garden	3'787'070
Bill No. 18	International Picnic Garden	4'508'678
Bill No. 19	Wadi Garden	3'972'724
Bill No. 20	Midnight Garden	3'784'870
Bill No. 21	Cul-de-Sacs "E"	5'894'907
	Total	44'385'807