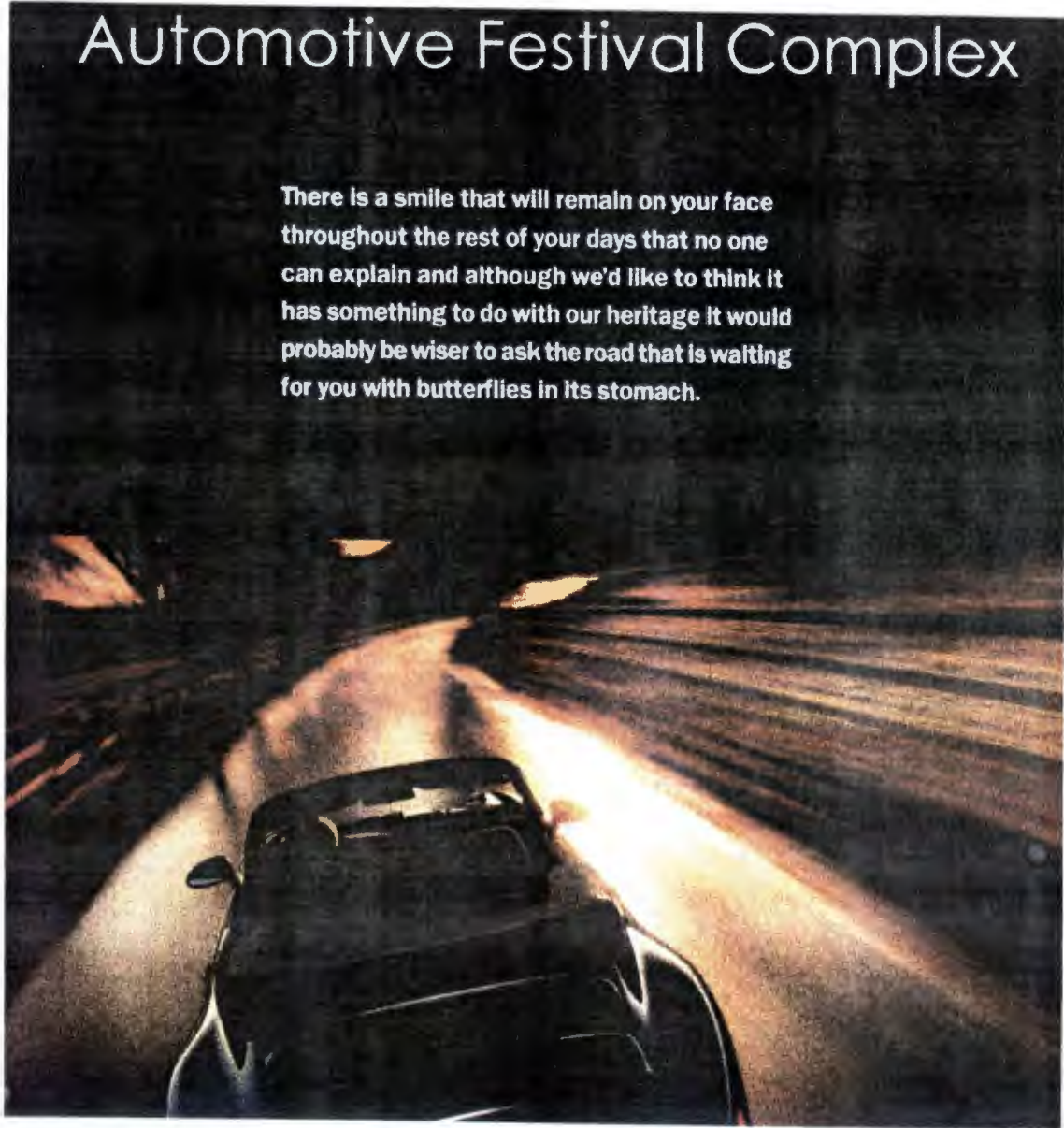


EPsn: 345

Automotive Festival Complex

There is a smile that will remain on your face throughout the rest of your days that no one can explain and although we'd like to think it has something to do with our heritage it would probably be wiser to ask the road that is waiting for you with butterflies in its stomach.



American University of Beirut
Faculty of Eng'g & Arch'
Department of Arch' & Design
Course: Final Project Research

Automotive Festival Complex

(A.F.C).

Name: Dany Abla
Class: Arch' 97
Advisor: T. Kazzaz

I- Introduction:

- Introduction to the project.
- Why AFC is beneficial for Lebanon ?
- Why Lebanon is adequate for the AFC.
- Local relationship of man/car.
- F1 talk.

II- Program:

- F1 requirements based on the FIA's regulations (appendix H&O)
- The car show/museum proper.
- The urban track as FIA's requirements and their implications on the urban level.
- ATCL headquarters.
- Back up Activities.
- Parking facilities.
- Illustrations; (F1 circuits, life in the pits, official practice, transport)

III- Schematics:

- General layout scheme.
- Sectionial Relationships.
- Paddock club, official headquarters, media press office.
- Layout of pits.
- 3d relationships (image of a pc; refer to machine/arch)
- Exhibition layout

IV- Photo album:

- Urban circuits.
- Life on the fast track.
- About museums.

V- Machine/Architecture:

- *Towards a new Architecture (Standardization).*
- *Metaphere of the PC.*
- *Hi-tech the emergence of a new phenomenon in building construction.*
- *From the Fiat factory in Turin, to the Renault center in Swidon.*

IV- Previous Examples:

- *Renault center, Norman Foster, UK.*
- *Inland Revenue offices, Michael Hopkins, UK.*
- *Waterloo station, Nicolas Grimshaw, UK.*
- *Yuzen Vintage car museum, Morphosis, USA.*
- *Mercedes Benz showroom, Emilio Ambaz,USA.*

VI- Site:

- *Zone/Location/Area.*
- *Choice of site.*
- *Site analysis/elements.*

FRUGITION

Introduction to the project:

The project I decided to adopt as a Final Design Project is an Automotive Festival Complex. AFC, which is a combination of a Formula one racing complex and an international car show/museum, taking the street network of Beirut, specifically the seacoast of Raoucheh to Ramlet-al-Bayda area (will be discussed later), as its urban track. The decision to choose this project is based on two main criteria's:

- Subjective: inherent from my obsession with cars and racing, that is mind you a common case among the Lebanese youth.

Formula one being the queen of the discipline, it has become for me the ultimate competition, adding to it the nostalgia that comes with this scene taking place in our homeland, Lebanon.

- Objective: that is in the national benefit that such a project would offer to the country in all fields, be it economical, political, touristic, & socio-cultural.

Why AFC is beneficial for Lebanon?

Lebanon needs to recuperate its prewar position as the 'server par excellence' for the middle east, a position we based our economy on, but is currently being challenged by the new 'servers' that popped out and established their infrastructure during our absence from the regional scene, as in Dubai and Israel. In order to stand out for the competition,

we must provide new attractions that would work on the international and regional level, thus bringing in new investments.

The media coverage, the attention drawn by F1 races and car shows, and the money invested in such events will participate in the image Lebanon is trying hard to re-acquire.

Grand Prix motor racing is the most powerful annual sports in the World. It is only ever eclipsed by the Olympics and the Football world cup both of which only take place once every four years and then only in one country at a time.

There are 17 Grand Prix races each year, and on an average each one is seen on TV by almost half the population of the globe, (refer to the attached press release from the FIA regarding the 1995 TV viewers.)

Although the race itself is televised globally for approximately 2 hours on Sunday, it is becoming increasingly popular for the TV stations to show at least an hour of practice on the Saturdays. An urban circuit such as the one to be designed for Beirut, will show the city off very well, and there will be many opportunities to exploit this world wide coverage of Lebanon.

It is clear that having an urban track is a powerful act in propagating a city, whereby the spectacle becomes associated to it, the city is the performance stage and buildings, balconies and roofs would be the audience quarters.

The world press flock to each Grand Prix, sending back to their editors, not only motor racing stories but also news of life in the country that is hosting the race.

Although a Grand Prix costs a great deal of money to stage, the host country will recoup the costs many times over and go on building year after year as the Grand Prix becomes established.

The image of the country will receive a terrific boost, encouraging commerce and tourism from all over the world to invest in the country. In addition to that, from the moment the Grand Prix is announced, extra visitors will be arriving to set a multitude of 'off track' activities that would surround the main festival.

The association of the name of the country with the event, which introduces it to the international scene as a world class standard place, well known in the 'paparazzi's milieu', thus launching the country in the tourism field, which needs a serious campaign to overcome the inherent war image.

To accommodate for hundreds of thousands of visitors coming from around the globe to watch those events, means money spending for leisure, night life, sleep ins, catering, shopping etc... thus increasing cash flow, enhancing the economic cycle of the country, and establishing Lebanon as the main pivot in the post regional peace period, forcing its neighbours to acknowledge that new acquired role and to deal with it as such.

A new reading of the space is initiated by the spectacle; a reading that has new dimensions; high feelings, noise, time, dynamics, precision, adrenaline, labels & tags, sponsors, prestige, competition, competitors, urban labs & engines, implementing a sign value to the space, the space now is more desired than ever. It has gone through a stage of metamorphosis that would last for three days, in these three days the

urban space re-becomes the infernal arena where gladiators used to struggle against lions, under the dazzled but amused eyes of the Romans. Formula one is the postmodern version of, lions (alias car) and gladiators (alias drivers), fight for survival.



Urbanely speaking, the arrival of that ^{or} big number of people on one occasion would create a need for sleeping accommodations, which broadly means more hotels, restaurants, more pubs, and many other leisure accommodations that such an event requires.

It is interesting to notice how the space go through a metamorphosis that lasts for three days; houses that were designed to be introverted become instantly extroverted and balconies are now the focal space.



Why Lebanon is Adequate for the AFC:

The festivities that come as byproducts of this afternoon's lion fight are accepted by our socio-cultural combination, putting us ahead of many Arab countries that have the infrastructure that would qualify them for such a task but lack the mental and cultural framework to accept it. The Lebanese tendency to enjoy life and to celebrate any occasion, becomes

an asset by itself and an attraction that people around the world would be aware of due to the propaganda that accompany such events.

Before the Israeli invasion of 1982, Ariel Sharon, the Israeli Minister of Defense in Begin's government, commented upon his first encounter of the cities of Jounieh and Beirut at night, "My God, I thought that these guys were spending their time filling sand bags for their defense." This is only to reflect the ability and the tendency of the Lebanese people to celebrate life in any situation.

Lebanese are well known for their entrepreneurial skills and their inherent know how, and they have proved it on many occasions; that is mind you, a reflection of their cultural superiority in the region.

Adding to this main advantage, we can state many others such as:

- The climate is good for a most of the year.
- Its geographical position will draw spectators and VIP's from Europe as well as the Middle and Far East.
- Communications are under renovation, with a new airport terminal scheduled to open prior to the Grand Prix.
- The media are active and aware.
- Sponsors and commercial investors are interested in the region, especially after the emergence of the middle east market.
- The political will is there.

The Car/Man relationship:

On the socio-cultural level too, the car-man relation in Lebanon is worthy to focus upon. The car became a part of life in our society, we have simply

no other means of transportation. This developed in a delicate relation between man and car on the micro and macro level.

The car is addressing the urban strata of the space and influencing it along its lines (macro level) and this is seen clearly when looking on the strip of the coastal highway, where you could realize that everything is designed according to a car user, in terms of buildings, shops and advertisement panels, and the envelope of the car (micro level), at the same time became the shield from the outer world when on the street, I mean the car is seen as a space, where cultural interaction takes place; from forbidden social activities to everyday life practices.

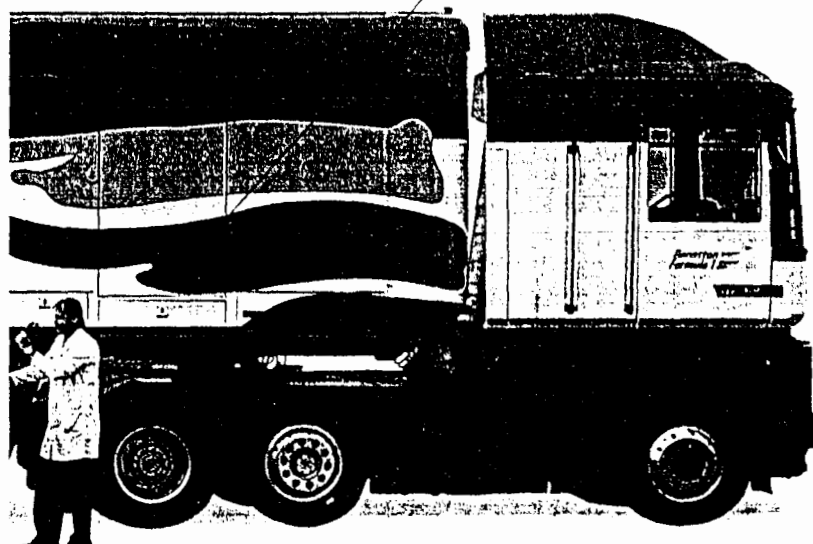
This attachment to the concept of the car, led to many race enthusiasts among the Lebanese generation, and opens the door to great public support.

E1 talk: Due to possibility of having a reader that is not acquainted with F1 as an event, I will be describing a normal race functioning, before stating the program.

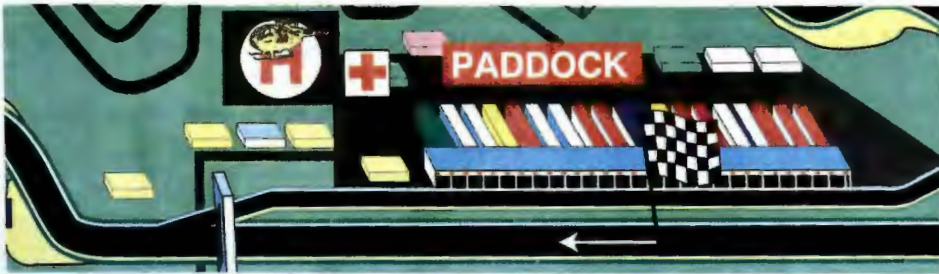
The event starts on Thursday of every other week, each time in a different country, so you automatically have a small town on the move.

Each team travels with two, sometimes three transporters, plus one or two motor-homes that bear the names of sponsors and serve as a base team for personnel and guests. These trucks park on

Trucks and trailers are painted in the colours of the team



their arrivals in a zone in the backyard of the main building linked to the garages or stands, from here on this area becomes restricted to staff only.



Friday, is called free practice, where every driver is allowed for as many laps as he can during one hour to check out the track and the proper car settings.

Saturday is the qualifications day; every pilot is allowed for 12 laps during which he has to score the best time. All drivers that fail to qualify in the 107% of the best time are not allowed to compete in the race. The pits now are very important,

because the driver has to come in fix the car set ups or change tyres and try once more or wait for the proper moment to go back in, meanwhile he is settled in the car with a monitor



on top of the car that shows him the times scored by other competitors, or he switches to another channel where his lap is displayed with computer suggestions to where and how to gain precious fraction of the second, this device is considered the best technological recording system in the world.

Sunday is race day, drivers have a warm up session early in the morning for last minute fine tunings, they are classified on the starting grid

according to the times scored on Saturday, the first lap is a warm up lap, then the race starts. The strategies are put prior to the race, whether it is a one, two or three stops strategy, all depends on the race conditions. A pit stop is when a driver needs to get back to the stands during the race to change tyres or refill his fuel tank,



The race lasts for maximum of 2 hours, the first six cars are tested for homologation in the scruteneering area, while the winner and his two successors go up to the podium where they are applauded by the crowd, champagne and trophies... a press conference is held, where every driver explains his racing conditions.

The race is over no trace of the struggle is left after two hours, this same space comes down from the rush waiting for the next round to get hi again.



SEE YOU

PERFORMANCE COMPARISONS



Price in France in 1995: FRF 59,500
Length: 343 cm, width: 163 cm



Price in France in 1995: FRF 200,000
Length: 380 cm, width: 183 cm



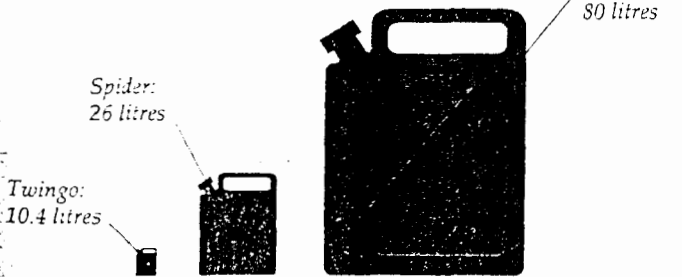
Price in 1995: approx. FRF 4,000,000
Length: 420 cm, width: 200 cm

WHAT DO A RENAULT TWINGO, a Renault Spider and a Williams F1 racing car have in common? Answer: four wheels, a steering wheel and a Renault engine. And that's about all. A Formula 1 car is designed to go as fast as possible over a very short distance. The distance of a Grand Prix is 300 km. Should a Formula 1 car break during the 301st kilometre, having passed the chequered flag, then it has done its job. On the other hand, a Twingo or a Renault Spider must be capable of exceeding 100,000 kilometres without difficulty.

FUEL CONSUMPTION

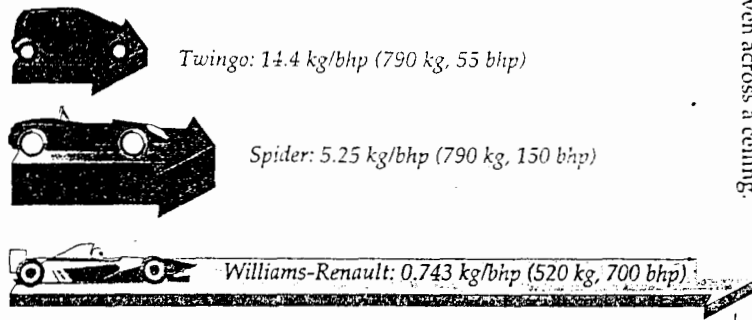
A Formula 1 engine is a real guzzler. At top-speed, 80 litres of fuel are needed to cover 100 km, eight times the requirement of a Twingo. During a Grand Prix, a Formula 1 car consumes around 180 litres in a distance of 300 km.

FUEL CONSUMPTION FOR 100 KILOMETRES AT TOP SPEED



POWER-TO-WEIGHT RATIO

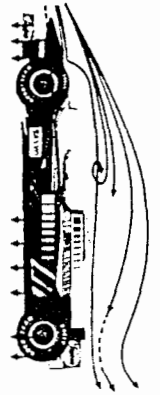
A Formula 1 car boasts 1 bhp for every 750 g of weight. For the Spider, 1 bhp has to pull 5 kg while the same figure for the Twingo is 14 kg. The power-to-weight ratio goes a long way towards explaining the staggering performance of a Formula 1 car. A Williams-Renault tips the scales at just 520 kg, including 5 kg mandatory ballast if not carrying an on-board TV camera.



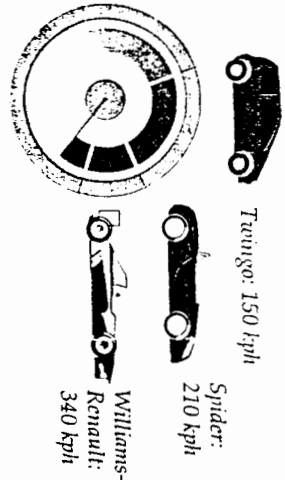
STREAMLINED AND ECONOMICAL
Performance of a saloon car such as the Sofrafrance depends on the fluidity of its lines. Effective streamlining helps reduce fuel consumption.



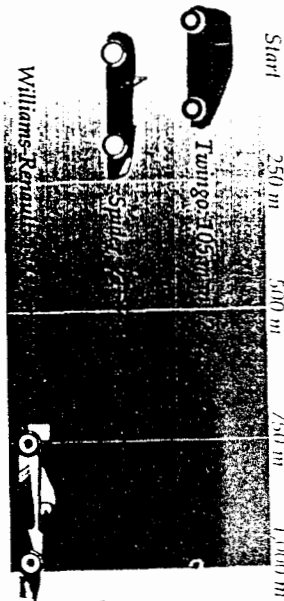
HIGH DRAG COEFFICIENT
The "open-wheel" design and downforce wings of a Formula 1 car mean that its drag coefficient is inferior to that of the Sofrafrance.



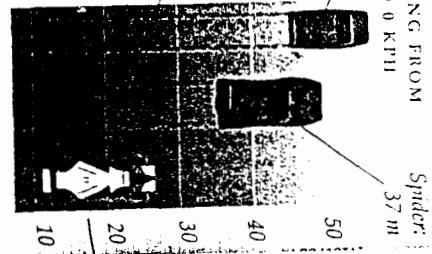
TOP SPEED



Start



BRAKING FROM 100 TO 0 KPH



SUCKED TO THE GROUND
The aerodynamic qualities of a Formula 1 car enable it to take corners at high speed as the front and rear wings help keep it "glued" to the ground. Wings can be adjusted by changing their angle or by adding counter flaps at each end. The suction effect, generated by a combination of downforce and a zone of low pressure created underneath the car as it travels at speeds of up to 300 kph, means it could theoretically be driven across a ceiling.

A GRAND PRIX FOR THE LEBANON cont'd

The FIA made it clear that it would welcome the introduction of its Formula One Grand Prix World Championship to the Middle East, but before the Lebanon could be inscribed on the Formula One schedule, a comprehensive dossier covering the Circuit, the Organisation, the Funding and the Facilities would have to be prepared for formal presentation to the Formula One authorities.

The FIA then recommended that Dr Altaki approach International Circuit Consultants (ICC) a British consultancy specialising in this type of work to see if they would prepare the dossier for the Lebanese Grand Prix and assist him with the presentation to the FIA.

Christopher Parsons and John Nicol of ICC welcomed the opportunity of working with Dr Altaki on this prestigious project and plans were soon made for them to visit Beirut to see the circuit first hand. They independently went to see the circuit, and both of them walked its full 6.7 Kilometres, Christopher Parsons in 30F pushing a measuring wheel before him. It was unanimously agreed that the 'Al Hariri Grand Prix Circuit' was indeed worthy of a Grand Prix and contracts were drawn up for the preparation and presentation to the FIA of the dossier for the Grand Prix of the Lebanon.

Contracts were signed in October 1996, and while ICC worked on the dossier for presentation to the FIA in early 1997, Dr Altaki returned to Beirut to begin the mountain of organisation that is necessary before a Grand Prix can be successfully staged.

Dr Altaki said of his campaign ' I am proud to be able to make this contribution towards the future of the Lebanon. We have estimated that the huge worldwide television audience of the Grand Prix will bring not only increased commercial investment to our country, but also boost tourism in addition to the crowds of enthusiasts who will come to watch the race. It will show the new Lebanon to the world and allow us to take up our position with the other major countries who stage Grand Prix.'

البيروتية اللبنانية
مطبوع في بيروت
مطبوع في بيروت

The Daily Star

تصدر كل يوم اثنين
الآن في الاسواق

FRIDAY JUNE 7 1996 No 3001

A TRULY INDEPENDENT VOICE IN THE MIDDLE EAST

Grand Prix bid by Beirut

\$50m plan to lure Formula 1 race

Matthew Prodger

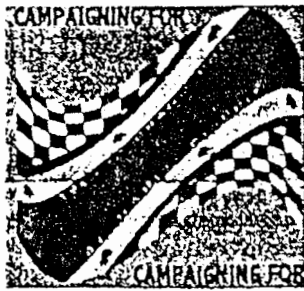
An application is being lodged with motor racing's governing body to host a Formula One Grand Prix in Beirut in 1998.

The organiser of the bid for Lebanon to join Monaco, Silverstone and Monza as a regular fixture on the Formula One calendar has won the backing of Prime Minister Rafik Hariri in an application to the Federation Internationale De L'Automobile (FIA) in Paris.

If the project gets the go-ahead, Beirut's Corniche and surrounding streets will be transformed into the "Al Hariri Circuit", a 5km long race track snaking through the city.

The bid has been devised by Lebanese businessman and motor racing fan Dr Khaled Altaki, who has recruited a British company - International Circuit Consultants - to oversee the track design and FIA application.

Among those keen to get involved is the British Lord Hesketh, owner of the Formula One Hesketh Racing team for whom British driver James Hunt raced in the 1970's. Hesketh is now Chairman of British Mediterranean Airways. He said "We are delighted to support any operation, such as



this, which would benefit Lebanon. It would be a great boost for the country if this could be made a reality."

Former FIA Championship co-ordinator Chris Parsons will travel to Beirut later this week to examine the proposed circuit and advise on any alterations needed to win approval. His initial inspection has found no serious problems with the projected route.

Dr Altaki said: "Like many Lebanese, I've been passionate about cars and motor racing since I was a child. Seeing Beirut on the same platform as Monaco would be a clear message to the world that Lebanon is ready to take its place on the international stage once again."

If the venture receives approval, Beirut would be the first Grand Prix venue in the Middle East.

The operation is being co-

ordinated from the offices of his London-based company, Lebanese Consultants to Business and Industry [LCBI(UK)].

The proposed route would begin at Boulevard Rafik Al Hariri, travel west along the Corniche, taking in Rue Fuad Trad, Boulevard Saeb Salam and Avenue Charles de Gaulle.

To qualify as a host for a Formula One Grand Prix, Beirut would need to stage a "warm up" event in advance. Altaki plans a saloon car or Formula 3000 race next year, with a much smaller go-kart event before that.

The cost of staging the Grand Prix is estimated at \$50m. Shares are to be issued in a management company to help raise the capital.

Among the factors Dr Altaki lists in Lebanon's favour are its climate, good geographical location, the interest of investors in the region and political backing for the event.

A spokesman for the prime minister's office said: "The Grand Prix would constitute a most positive step as it shows Lebanon remains a country where venues of international significance still take place. It will also help bring back tourism and have broad benefits on the various other sectors in the economy."



FEDERATION INTERNATIONALE DE L'AUTOMOBILE

PRESS RELEASE

FROM THE

FEDERATION INTERNATIONALE DE L'AUTOMOBILE (FIA)

WORLD-WIDE WINNING FORMULA

FIA Formula One World Championship draws record breaking television audiences.

More than eight times the world's population watched Formula One motor racing on television last year. The FIA Formula One World Championship broadcast figures reached world-wide, record-breaking proportions in 1995.

Forty-five billion viewers tuned into coverage of the 17 Grands Prix over the season. This compares to the record 32 billion viewers who watched the 1994 football World Cup on television. No other event comes anywhere close to achieving these record-breaking figures. Even Live Aid's massive audience of 1.5 billion (a third of the world population) only represents a mere fraction of the Formula One total.

Last year 201 countries broadcast the Championship; a 26% increase on the 1994 figures. To put this into context:

- there are just 185 countries who are members of the United Nations
- the world's most prestigious tennis championships at Wimbledon are broadcast to approximately 145 countries
- the so-called "World Game" of football in the guise of USA '94 hit 188 countries.

Formula One races were broadcast for a record-breaking 26.5 thousand hours compared to 18.5 thousand hours' coverage of USA '94 (the football World Cup).

This broadcast success was due to the commitment of Bernie Ecclestone and his company, FOCA Communications, working in close co-operation with the FIA.

Max Mosley, President of the FIA, commented, "The number of countries who now cover Formula One has increased by more than a quarter in the last season. Tickets at many circuits sell out before the season even begins, so television is a vital medium to reach the billions of motor racing fans world-wide. The FIA Formula One World Championship is the ultimate televised sport world-wide."

NOTES TO EDITORS:

FIA Formula One World Championship television broadcasting statistics

	1994	1995	DIFFERENCE
TOTAL BROADCASTING COUNTRIES	160	201	+ 26%
TOTAL MINUTES BROADCAST*	1.140 million	1.580 million	+ 38%
TOTAL BROADCASTS*	36,095	50,912	+ 41%

(* Including race, additional programmes & news coverage)

GENERAL

World population 5.544 billion
Europe population 728 million
UN members 185 countries

Paris, 18 February 1996

2.64 b per race

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PROGRAM:

The program is divided into 4 main parts that may overlap in some cases:

- 1- The strictly F1 requirements based on the FIA's book of demands, (appendix H & O).
- 2- The car show and car museum proper.
- 3- The urban track as FIA's requirements and their implications.
- 4- Back-up activities.

1- Race configuration:

- *Garages:* 13 units, with different capacities, varying from 4 cars to 1, from 18*6 to 10*6 meters, depending on the size of the team (refer to diagrams). These spaces are the most controlled, and can be accessed only by teams members, officials, VIP's, and other reporters' access is limited to a time table.

In those spaces, strategies are woven, implementing a high degree of enclosure and security.



- The paddocks which are the mechanics' space and the teams' area to work and rest. It is usually an open space on the other side of the pit lane, where two huge trucks park on the sides of the paddock, forming an enclosure which is stressed by the metamorphosis of the catering truck to a tent, the other truck is the mechanics truck. Big teams have a third truck for transportation. This area is the least private and controlled. Although you have to have an authorization to go there. Near the paddocks are located the helicopter landings and a medical center.



- The pit lane formed by 13 pit stop space.

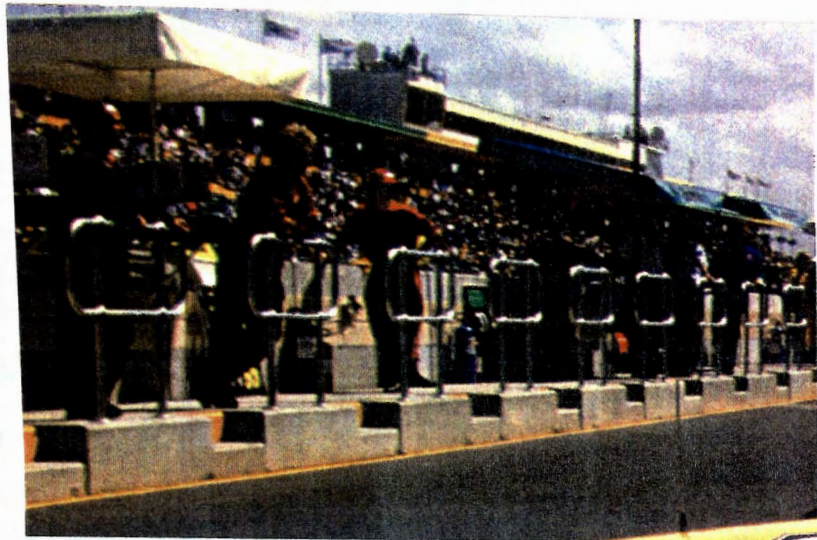


[For avoidance of doubt and for description purposes, the pit lane shall be divided into two "lanes". The lane closest to the pit wall is designated the "fast lane" and the lane closest to the garages is designated the

"inner lane", and is the only area where any work can be carried out on a car in racing time.] Refueling is only allowed in this area.

- The grid, which is the start line positions, the rows are separated by 8 meters. (refer to the track requirements).

-The stands which is the lane between the pits and the race, used for human backup, information supply, on track strategies, signals zone, in brief, it is the space that links the teams to the drivers. It is higher by a minimum of 140 cm than the track, and a 2m wide.



- The race podium. Located in a high place above the complex, usually in the race control tower, a space for the public shall be provided in front of it.

- Parc ferme', which is the area where the cars are parked after the race to be rechecked. The Parc ferme' shall be sufficiently large and secure that no unauthorized persons can gain access to it. It is strictly for officials and two mechanics per team, which must be accompanied by officials when checking the car. [At the pits entrance, the organizer will provide a flat horizontal surface measuring 6m * 3m, the weighing equipment will be installed in this area and will be used for weighing procedures]. Area around 150 msq.

Race backups:

- Main press office: Its is a huge freeplan room, with posts for the reporters. Every desk is provided by all the communicative technology existing.



t has large screens, showing every detail of the race. It is located on the second or third floor and overlooking all sides for maximum coverage. Located in the main complex. max. area 2000 msq.

- Team private press office: Used to provide team information. Area around 20 msq.

- Medical center: This is a must. It is usually located in the nearest possible area to the track. It has to be accessible from every point of the track. (Discussed further in track requirements).

- Conference room: with a capacity of 100 to 150 persons.

- Race control tower: It has a race



observatory and the headquarters of the ATCL and officials of the FIA.

- Computer room: linked to the press office, it is the buffer zone between reporters and officials. Area around 200 msq.

- Helicopter landing space: linked to the medical center and the tower of control.

- Private cafeteria, with a catering space for official and small teams.

- Public seating: capacity of as many as possible. Under these spaces are usually located the retail business of the race event.

-Paddock club area: Seating above the paddocks for the privileged and invited persons. Linked to the private cafeteria.

-W.C. (private).

II- Car show and car museum:



- Main exhibition space. Area 10,000 to 15,000 msq.

This space is first a bi-functional one, whereby it is divided into two main parts:

The fixed space; as in a permanent museum which is held all year round and is divided into two main bodies the antiquity section and the sport section that uses the pits for its main headquarters except on racing days.

The multi-functional space; while F1 is the ultimate celebration of the car, over here we celebrate the everyday car; from international car shows

and prototypes to local car fair, transportation specific, motorcycles, electrical cars, car equipment's and accessories, car graphics, reaching the used car sale. During the F1 race, the teams would expropriate this space to use it as paddocks.

- Administration (3 offices, 3 secretaries, 1 conference room.)

- W.C.

III- Track requirements: (according to FIA regulations)

-Width

Planning new permanent circuits, the track width foreseen must be at least 11m.

The maximum permissible width for a new circuit, is 15m which at certain points of the circuit is possible.

When the track widens or narrows, the transition must be made as gradually as possible, and in any case at a rate not greater to 1 in 20.

-Length

maximum allowable length is 7.0 km.

-Longitudinal profile

The gradient of the start/finish line should not exceed 2%

Any change in gradient must be affected using a minimum vertical radius calculated by the formula:

$$R = V^2/K.$$

R is the radius in meters;

V is the speed in kph;

K is a constant equal to 20 in the case of a concave profile, and 15 for convex.

The value of R must be adequately increased along approach, release, braking and curved sections.

- Transversal sections:

Straights: Along straights, the transversal incline, for drainage purposes (this is a concern), between the two edges of the track or between the center-line and the edge (camber), shall not exceed 3% or be less than 1.5%.

Curves: In curves, the banking (downwards from the inside of the track) shall not exceed 10% (with possible exceptions in special cases, such as high speed autodrome tracks.)

An adverse incline is not generally acceptable unless dictated by special circumstances, in which case the speed should not exceed 125 kph.

Any variation in the transversal incline, particularly along the entry and exit sections of a planimetric curve, must have adequate altimetric transitions, based on the trajectory and on considerations of the longitudinal profile.

- Visibility:

Ideally, from any point of the course, the driver should have unobstructed forward vision of a distance along the track equal to the car's braking distance from the maximum speed attainable at that point.

- Curves:

A curve, a series of curves uninterrupted by a straight, taken at speed over 125 kph, should preferably have an increasing, or at least a constant radius.

Curves taken at lower speeds may have a decreasing radius on condition that it is foreseen to provide an adequate safety area, extending beyond exit of the curve (s).

Track edges, verges and run-off areas:

The track must be bordered all along its length on both sides by compact verges at least 3m wide, having an even surface, but more irregular than the track itself.

These verges must be free of loose stones or debris and will normally be grass covered; they should be a continuation of the transversal profile of the track, with no step between track and verge; any transition should be very gradual (minimum vertical radius 50 meters).

A run-off area is that section of ground between the verge and the first line of protection, and unless otherwise specified, shall have the same basic characteristics as the verge, although it may be less stabilized.

The run-off area must be graded to the verge; if it is a slope, this shall not exceed 25% upwards or 3% downwards), in relation to the lateral projection of the track surface. (This paragraph does not apply to gravel beds).

Starting grid:

For a massed starting standing start, there must be at least 12 meters length of lane available per car; there must be at least, 2,50 meters width of track available per lane of cars.

The width of the track at the start, must be maintained for at least 250 meters beyond the start line.

There should preferably be at least 250 meters between the starting line and the first corner.

By corner, in these cases only, is understood change of direction of at least 45 degrees, with a radius of less than 300 meters.

For events counting Formula 1 World Championship, there will be only two lanes of cars, disposed in staggered formations.

There will be at least 16 meters length of lane per car, thus at least 8 meters length of grid per car.

Circuit Safety Measures :

The safety measures on a course are intended for the protection of the spectators, drivers, race officials and service personnel, during competition.

When determining the safety measures for the circuit, the characteristics of the course must be taken into consideration. (Layout, adjacent areas, buildings and constructions), as well as the speed attained at any point of the track.

The type of track protection recommended is dependent on the available space and likely impact angle. As a general principle, where the probable impact angle is low (less than 30 degrees), a continuous, smooth, vertical barrier is preferable, and where the probable impact angle is a high system of deceleration, (e.g. gravel bed) and stopping (e.g. tyre barrier) devices should be used, it being indispensable to provide for sufficient space at such points in the planning stage. The FIA can provide advice on the above, after examination of the proposed layout in each case.

The public must be placed at the same level or higher than the track edge. Where a public enclosure is situated on a gradient, this shall not be steeper than 1 in 4, unless the ground is terraced, or there is a proper grandstand.

The public will be retained by metallic fence or other equivalent structure, at least 1.20 meters high and will be behind one or two lanes of track protection approved by the FIA. All public areas at circuits must be efficiently enclosed by continuous barriers as well as all areas forbidden to the public.

Each installation must be approved individually by the FIA. Guidelines also exist for temporary Circuits, Rally Cross and Autocross Circuits, Races Run at Night and Hill-Climb Courses.

Service Roads and Access Points:

- a) To reach any point of the track as quickly as possible.
- b) To operate as far as possible without having to use track, in case of accident.
- c) To reach the medical centre and the exits from the circuit as quickly as possible.

The service network should include a road which follows the track along one side and at a limited distance from it (approx. 5 meters), behind the first line of protection.

The service road should be reserved exclusively for emergency vehicles and be connected to other roads leading to the medical center and the exits, at points chosen to reduce to the minimum the distance to be covered.

Advertising:

Advertising structures must be stable and secure. Location and characteristics of advertising should be such as not to interfere with drivers' and officials' visibility and not to produce an adverse or misleading optical effect. (e.g. bewildering repetition of brightly contrasting posters; badly placed hoarding, inducing misjudgment of the road layout).

All advertisement between the track and the first protection barrier must be either painted on, or in the case of guardrails, may be in the form of adhesive posters, which follow exactly the contours of the rail. There must be no publicity structures in this area.

Structures behind the first protection should be at least 1 meter behind and not obstructing circulation or emergency service in any way. The FIA inspectors may require a greater distance in particular cases however. Should a structure be positioned so that it could, if it fell, cross a safety barrier, it must have additional stays behind it to prevent this.

Any advertising in front of the second line protection must have been specifically approved by the FIA circuit inspector and must have access points (1m wide) every 6-10 meters.

Back up activities:

A.T.C.L. Headquarters:

- Administration (4 offices, 1 main office, 1 conference room, reception space.) Located in the tower control as mentioned above.
- Scrutineering space (that will be combined with the garages).

Paddock club: (AMPHITHEATRE; PIANO BAR; DRIVER'S CLUB)

- Cafeteria
- Multipurpose hall: dedicated for the automobile fans in the world (this space should be linked directly to the exhibition space.
- Shops; souvenirlike type.
- Parking:

This issue is discussed thoroughly later on, but what I will focus upon the structures use after the race.

Parkings will be used for:

- i- The car museum and the car exhibition; which are activities used around the year.
- ii- The car parks located on the end of the circuit, direction south (gates of Beirut) can be used as a location to park the car for those living in the south, penetrating Beirut by bus.

Parking:

Car parking has become a significant land use. Especially with an event such as that where it attracts hundreds of thousands of people in rush hours of the race or the exhibition. Consequently, car park structures in the form of the multi-storey car park, the underground or the basement car park, and the car park in the multi-function building are now common. Although they are found principally in the city and town centers, conference centers, hotels, housing, offices, factories, places of entertainment, railway stations and sports facilities.

Multi-storey car park are open structures to permit natural ventilation. Usually their height does not exceed 15m. Their main structural lines are horizontal, except for the ramped-floor layout for which the structural lines are gently inclined at a slope not normally exceeding 20 %. To meet circulation requirements it may be necessary to have external ramps.

A free standing multi-storey car park is essentially a functional building generally composed of a series of floors supported on columns to provide relatively large areas of uninterrupted floor space. Very little weather protection is required, and there is generally no need for roof over top floor. There is much emphasis on achieving low cost per car space, which leads to a demand for a cheap building. If requirements demand the use of exterior ramps, these impose considerable restrictions on the design and appearance.

It is recommended if the car park be designed as a separate structure. For large developments, and when all costs are taken into consideration, there is no evidence that incorporating car parks in buildings with other functions increases the cost of accommodating cars. Aesthetically, in some situation it may be remembered that siting above ground usually reduces the cost of the structure and permits the use of natural ventilation.

The treatment of the site surrounding a multi-storey car park can have a considerable impact on the building itself, and even in urban situations there is opportunity for hard landscaping.

Underground car parks pose less problems. The exception is the ramps, which can sterilize relatively large areas of the ground surface. The sides of the ramps offer obvious opportunities for careful thought and interesting treatment. Straight ramps are usually more difficult to treat than curved ones. Attention should be made to minimizing noise generated by ventilation fans in underground parks.

Car parking provision is constrained not only by requirements usually affecting the design, construction and equipment of structures of this nature but may also be affected by national and local policies aimed at traffic regulations through limited provision of parking spaces.

We can consider broadly three systems of car parks :

- a public car park operated as a public service for profit or through a subsidy.
- a facility for a specific development where the pattern of use may be expected to remain reasonably constant throughout the day.
- a facility for a given activity that will generate high peak demands at given times or lead to the assumption that there may other wise be special design considerations.

It is recommended that the performance specification be prepared on the three stages:

- Traffic feasibility requirements.
- Site feasibility requirements.
- Accommodation and operational requirements.

Large parking developments may generate high traffic flows, especially peak hours parings, and the need to meet traffic requirements is of primary importance. In such cases it is recommended that a traffic study be done initially followed by a site feasibility study.

In the case of a separate traffic study is required it should include the external road system. The traffic study provides the flows required for the site study. It also identifies key issues; such as

in urban areas with high car parks flows the location of the entrance and exits can be critical. The traffic feasibility study also establishes the capacity.

Parking schedule:

a- Capacity

- i- This is the number of car spaces required and is usually stated as a minimum capacity.
- ii- If part of the car park is to be used for a special category of user, or part of it to be partitioned as individual lock-ups, a breakdown into types of accommodation is required.
- iii- The capacity is usually derived from the development that the car park serves; alternatively, the requirement may be to make appropriate use of a particular site.

b- Layout

- i- Floor and ramp arrangement.
- ii- Arrangements of entrance\exit lanes and provision of reversible lanes.
- iii- Arrangement of control gates including the preferred method of checking entry and exit.
- iv- Reservoir space at entry.
- v- Reservoir space at exit.
- vi- The arrangement required for pedestrian entrance, egress and circulation, including provision for the disabled.
- vii- Escalators and lifts. Requirements should be specified; any special requirement, for instance for shopping trolleys, should be stated.

c- Dimensions

- i- Stall size (width & length). Where there are special requirements the appropriate stall sizes should be stated for each requirement.
- ii- Aisle width.
- iii- Clearway widths.
- iv- Helical ramps; layout & minimum outer kerb radius.

d- Internal accommodation

- i- Cash-kiosk requirements, including fittings.
- ii- Managers' office floor area and fittings.
- iii- Staff toilet provision required.
- iv- Toilet accommodation for car park users.
- v- Electricity substation requirements.
- vi- Storage.

e- Headroom: The headroom is normally standard. In mixed use buildings the headroom should be stated for floors not used wholly for parking.

f- Entrance & exit control: The entrance & exit control system, should be specified and also any payment system. Where payment is to be made the audit requirements should be specified.

g- Finishes: Any preference for finishes, including the use of walls for advertising purposes, should be stated.

h- Signs and floor markings: Illumination of direction signs and provision of floor markings to facilitate circulation may be required as also may be references to enable users easily to retrieve their vehicles.

i- Ventilation

- i- Expected rate of air change.
- ii- Maximum CO content permissible at any point in the structure.

Life in the pits

TEAMS WILL BEGIN TO ARRIVE at a circuit on the Wednesday preceding the race and leave again on the Sunday evening. Each team works out of pits allocated to teams on the basis of their position in the previous year's World Championship, and this order does not change once the season is under way.

For four days the pits are a buzz of activity. Entry is strictly controlled and even the media and photographers do not escape surveillance. Telemetry monitors are hidden away at the back of the pits behind tarpaulin enclosures. Mechanics continue to work on cars during the evening and into the night, well after the last spectator has left the circuit.

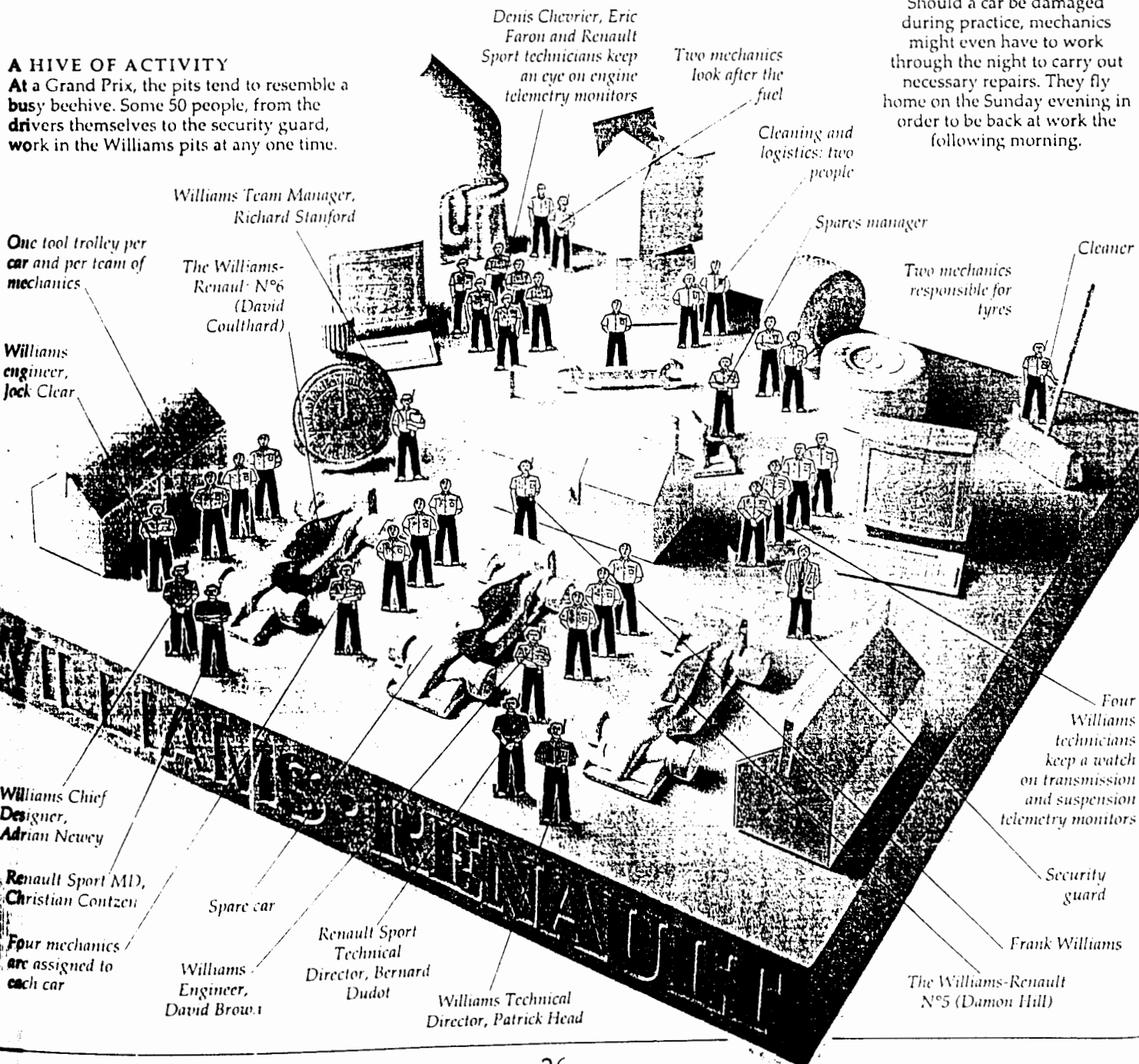
A HIVE OF ACTIVITY

At a Grand Prix, the pits tend to resemble a busy beehive. Some 50 people, from the drivers themselves to the security guard, work in the Williams pits at any one time.

0600	Wake-up
0700	Set off for the racetrack
0730	Arrive at the racetrack
0735	Preparing the car
0920	Fitting wheels and nose cone
0930	Free practice, adjustments
1100	End of session, checking
1120	Snack
1130	Preparing car for timed laps
1300	Official timed practice
1400	Draining petrol and oil
1500	Lunch
1530	Preparing the car for the race changing engine, suspension, gearbox, wheel bearings, radiators
2230	Dinner
2400	Return to the hotel

A DAY IN THE LIFE

In the course of a Grand Prix, team mechanics will spend a minimum of 16 hours per day at the circuit. Both lunch and dinner are taken at the circuit. Should a car be damaged during practice, mechanics might even have to work through the night to carry out necessary repairs. They fly home on the Sunday evening in order to be back at work the following morning.



Official practice

DRIVERS SPEND practically the entire two days of official practice in conversation with their Team Director, engineers, mechanics, sponsors or journalists. Curiously, they spend precious little time in their cars, especially since new regulations introduced in 1993 set an upper limit on the number of laps each driver is able to complete (30 laps in free practice on Friday and Saturday, 12 in qualifying practice on Saturday). On average, a driver will spend just one hour actually driving his car on each of the two days of practice. However, he will spend more than six hours a day in technical discussions either in his car during practice or in his pits or motorhome, in an endeavour to find the ideal settings.

A DAY IN THE LIFE

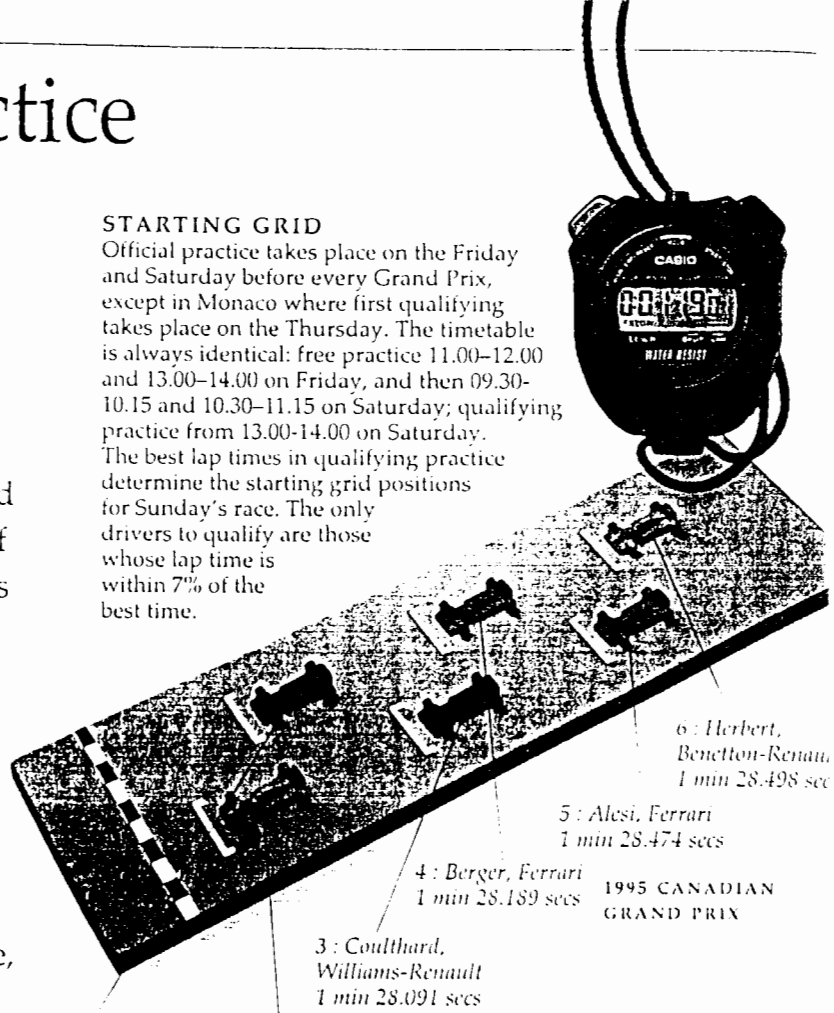
The schedule for practice follows the same routine at every race. Whatever the circuit, drivers always observe the same ritual, arriving at the track, taking lunch and holding technical briefings at the same time each day. Every second is committed to improving the car's performance.

ARRIVAL AT THE CIRCUIT

Drivers get to the circuit at around 8 am. If the team has the means, and if traffic is congested, they might arrive by helicopter. More usually however, they arrive by car. A special car park is provided for them close to the paddock

STARTING GRID

Official practice takes place on the Friday and Saturday before every Grand Prix, except in Monaco where first qualifying takes place on the Thursday. The timetable is always identical: free practice 11.00-12.00 and 13.00-14.00 on Friday, and then 09.30-10.15 and 10.30-11.15 on Saturday; qualifying practice from 13.00-14.00 on Saturday. The best lap times in qualifying practice determine the starting grid positions for Sunday's race. The only drivers to qualify are those whose lap time is within 7% of the best time.



6: Herbert, Benetton-Renault
1 min 28.498 sec

5: Alesi, Ferrari
1 min 28.474 sec

4: Berger, Ferrari
1 min 28.189 sec

3: Coulthard, Williams-Renault
1 min 28.091 sec

2: Hill, Williams-Renault
1 min 28.039 sec

1: Schumacher, Benetton-Renault
1 min 27.661 sec

1995 CANADIAN GRAND PRIX

CHANGING ROOM

Drivers change into racing overalls inside the team's transporter. Gloves and helmet will be put on just before climbing into the car. As a general rule, drivers leave the transport of gear such as overalls, shoes and gloves to the team

BASIC SETTINGS

Once kitted up, the first priority is to talk with engineers about the car's basic settings, selected according to the type of circuit. A programme of work is established for the free practice session

AUTOGRAPH HUNTERS

Entry to the paddock is strictly controlled. However, determined spectators occasionally succeed in slipping through the net. They are willing to wait for hours by the gate in the hope of getting an autograph

FIA administrative obligations: 15 mins

Public Relations: 2 hours

Transport: 1 hour

Sleep: 8 hours

Driving: 1 hour

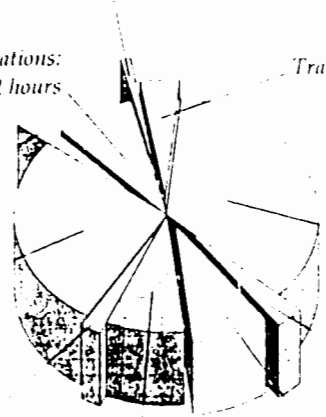
Attention: 15 mins

Technical meetings: 1 hour

Massage: 30 mins

Interviews: 2 hours

Meals: 2 hours



INTERVIEWS
Something like 600 media representatives attend each Grand Prix, and drivers will spend an average of two hours every day with journalists. This can take the form of individual interviews or press conferences. The drivers most in demand are those who set the best qualifying times.

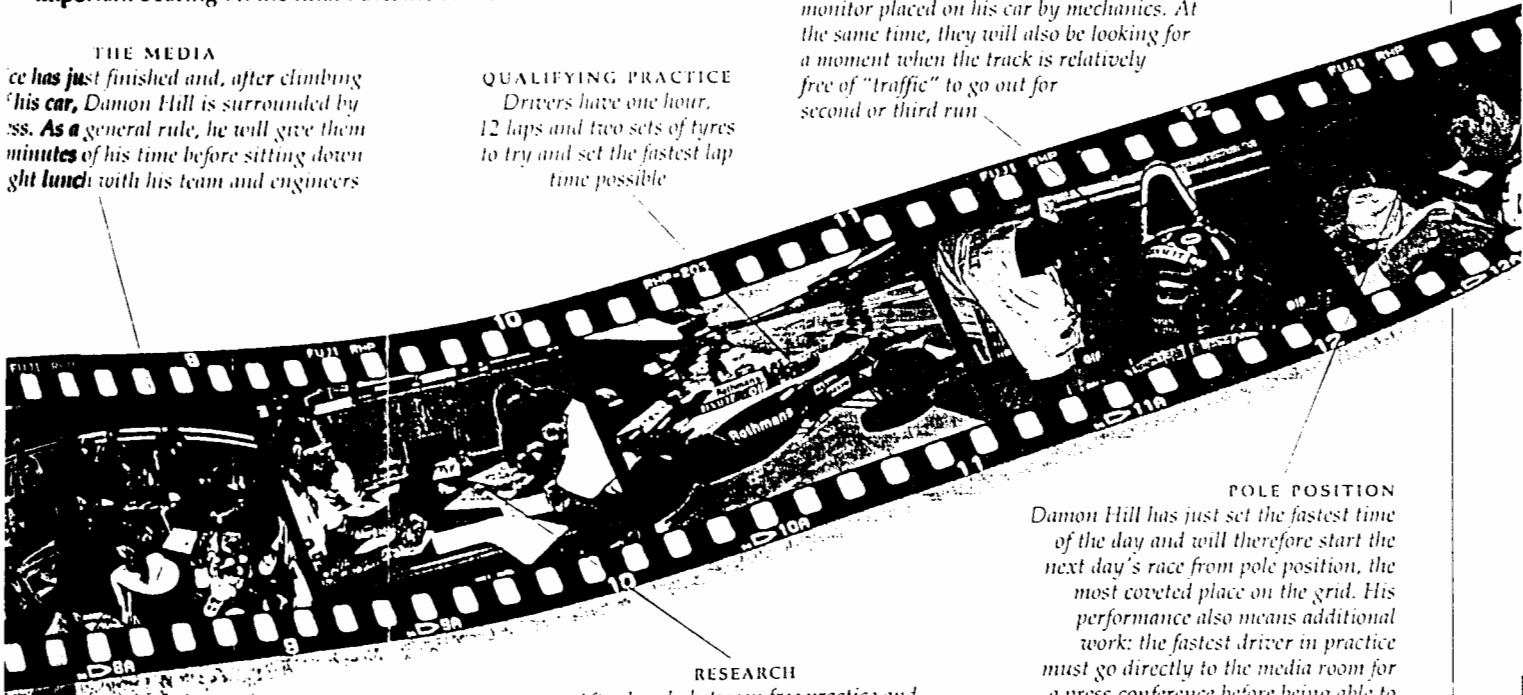


HOURS IN THE LIFE OF A FORMULA 1 DRIVER
Around 6 hours are spent discussing the setting up of the car. Around 1 hour is spent actually driving the car on the track. This may seem disproportionate, but such meetings can have an important bearing on the final outcome of the race.

THREE RUNS
Damon Hill returns to his pits after his first run (out lap, two flying laps and in lap) to fine-tune settings and catch up on how his rivals are faring, by means of a timing monitor placed on his car by mechanics. At the same time, they will also be looking for a moment when the track is relatively free of "traffic" to go out for second or third run.

THE MEDIA
Once he has just finished and, after climbing out of his car, Damon Hill is surrounded by the press. As a general rule, he will give them a few minutes of his time before sitting down for lunch with his team and engineers.

QUALIFYING PRACTICE
Drivers have one hour, 12 laps and two sets of tyres to try and set the fastest lap time possible.



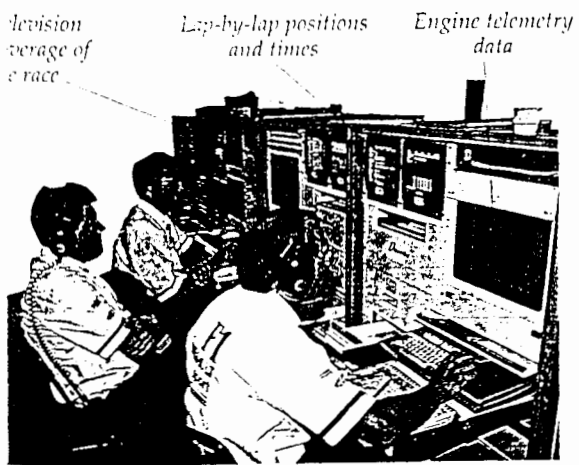
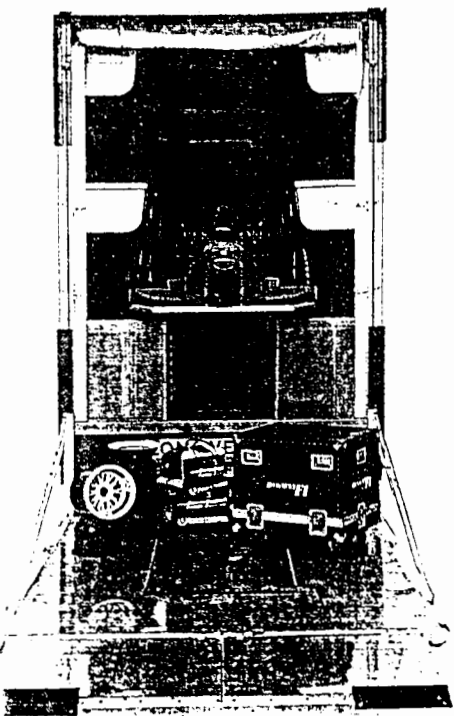
POLE POSITION
Damon Hill has just set the fastest time of the day and will therefore start the next day's race from pole position, the most coveted place on the grid. His performance also means additional work: the fastest driver in practice must go directly to the media room for a press conference before being able to return to his motorhome for a de-briefing session with his engineers.

RESEARCH
After lunch, between free practice and qualifying practice, drivers have less than two hours at their disposal to reflect on the best settings for their cars.

PRACTICE
Drivers have a maximum of 23 laps on Friday and Saturday's free practice (1.5 hours) to set up their cars with full fuel tanks. They will start with almost empty tanks in order to have the best chance of setting a blistering lap time during the afternoon's qualifying session.

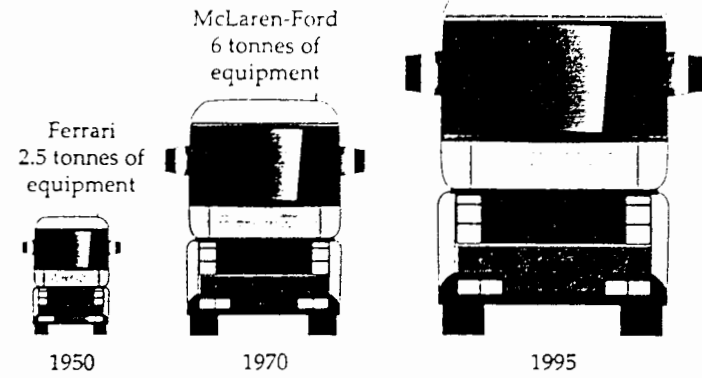
MOTORHOMES
Each team has its own luxury motorhome in the paddock. This is where drivers retire to eat or be massaged, whilst Team Directors profit from its privacy to entertain VIP guests or negotiate future contracts. It is also here that mechanics will take their evening meal at the end of the day when all at the circuit is calm.





V MONITORS
 To keep a permanent eye on the performance of his car, an engine technician has three screens at his disposal. The first displays a variety of technical data concerning the engine's performance, a television monitor allows him to follow the race itself, whilst a third screen provides lap times and positions.

FORMULA 1 HAS PUT ON WEIGHT
 Since 1950, the amount of equipment shipped to races for two cars has increased ten-fold. This increase is due to the number of spares carried.

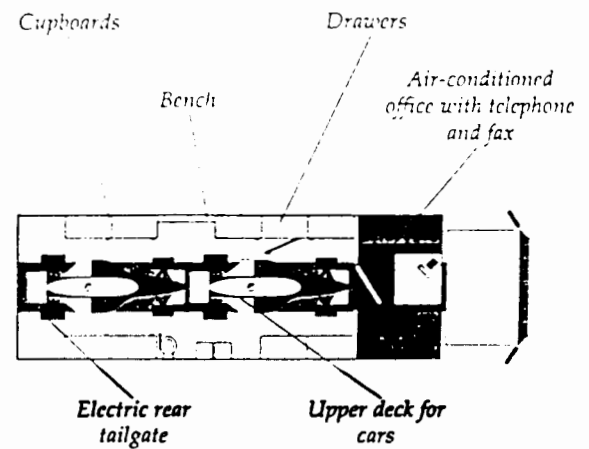


CUSTOMS CLEARANCE
 Formula 1 hates wasting time. Equipment shipped from one circuit to another must be able to pass from one country to another with the least fuss possible. It is the team's logistics manager who is responsible for carrying with him the piles of administrative documents required by customs officials, and he never lets them out of his sight.

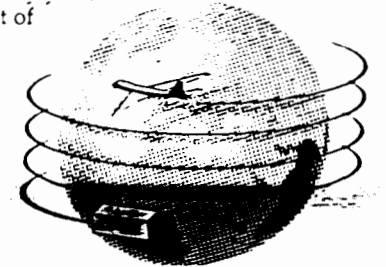
TAKING STOCK
 As well as cars and engines, leading teams such as Benetton-Renault ship practically their entire workshop to the venue of each Grand Prix. Semi-trailers are filled to the brim with sufficient parts to build a complete car many times over. Equipment includes:

- body-parts: front and rear wings, undertrays, nose-cones, repair-kits (resin)
- telemetry: aerials, computers, calculators, colour screens, printers
- electrical equipment: generators, voltage regulators
- compressors and oxygen bottles for air tools
- a few hundred kilos of miscellaneous tools
- and even spares to repair...the crates that contain all this!

OPERATING THEATRE
 Team transporters are as spotless and tidy as operating theatres. The tools and hardware – screws and fasteners, for example – necessary for the assembly and maintenance of the cars are stored beneath benches along the sides of the trailer. Once the cars themselves have been unloaded, mechanics and engineers have a

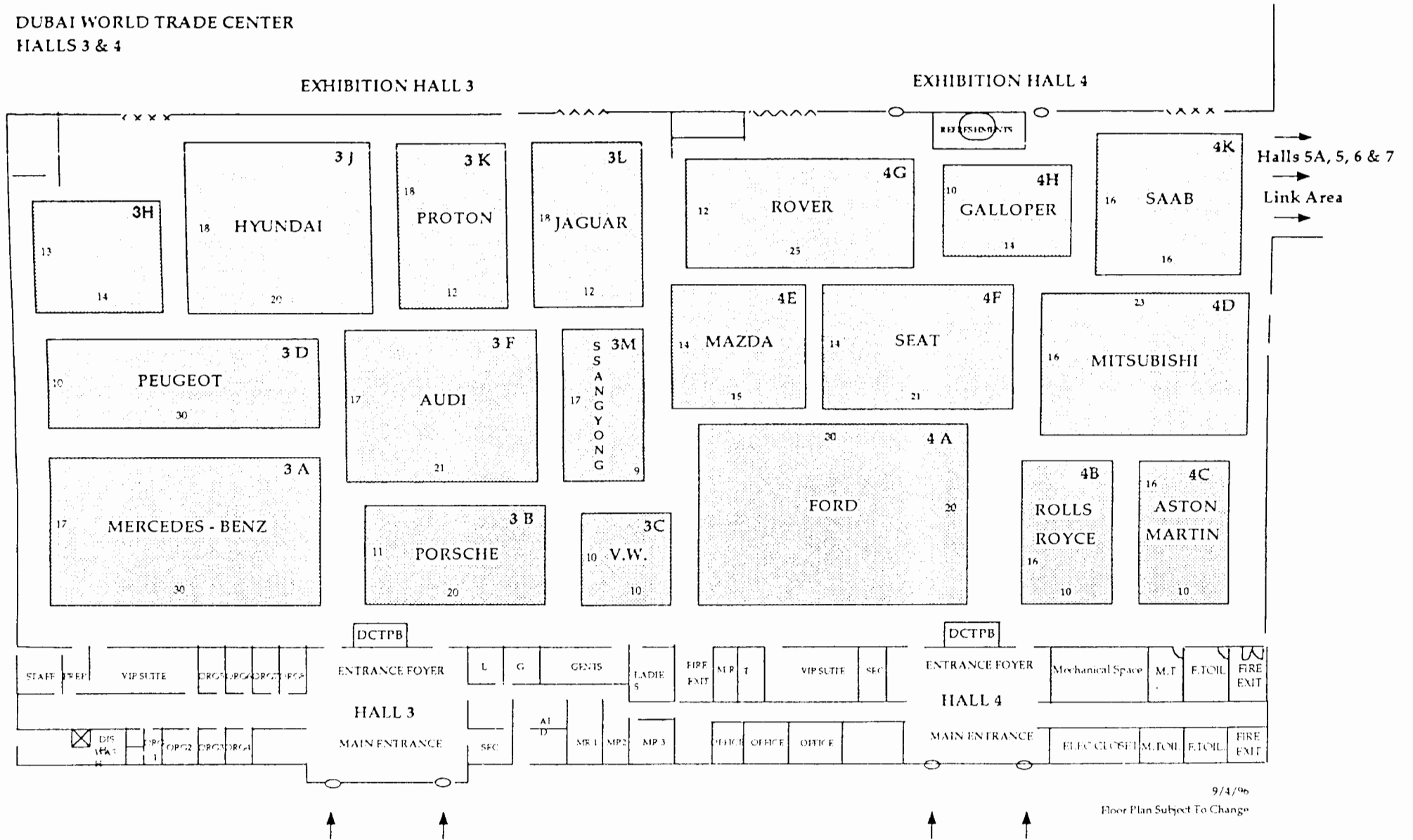


FOUR TIMES AROUND THE WORLD
 A Formula 1 team clocks up some 160,000 km every year, the equivalent of four times around the planet. The 50 or so people who make up the race team spend an average of



**The 4th Middle East
International Motor Show
November 11th - 15th, 1997**

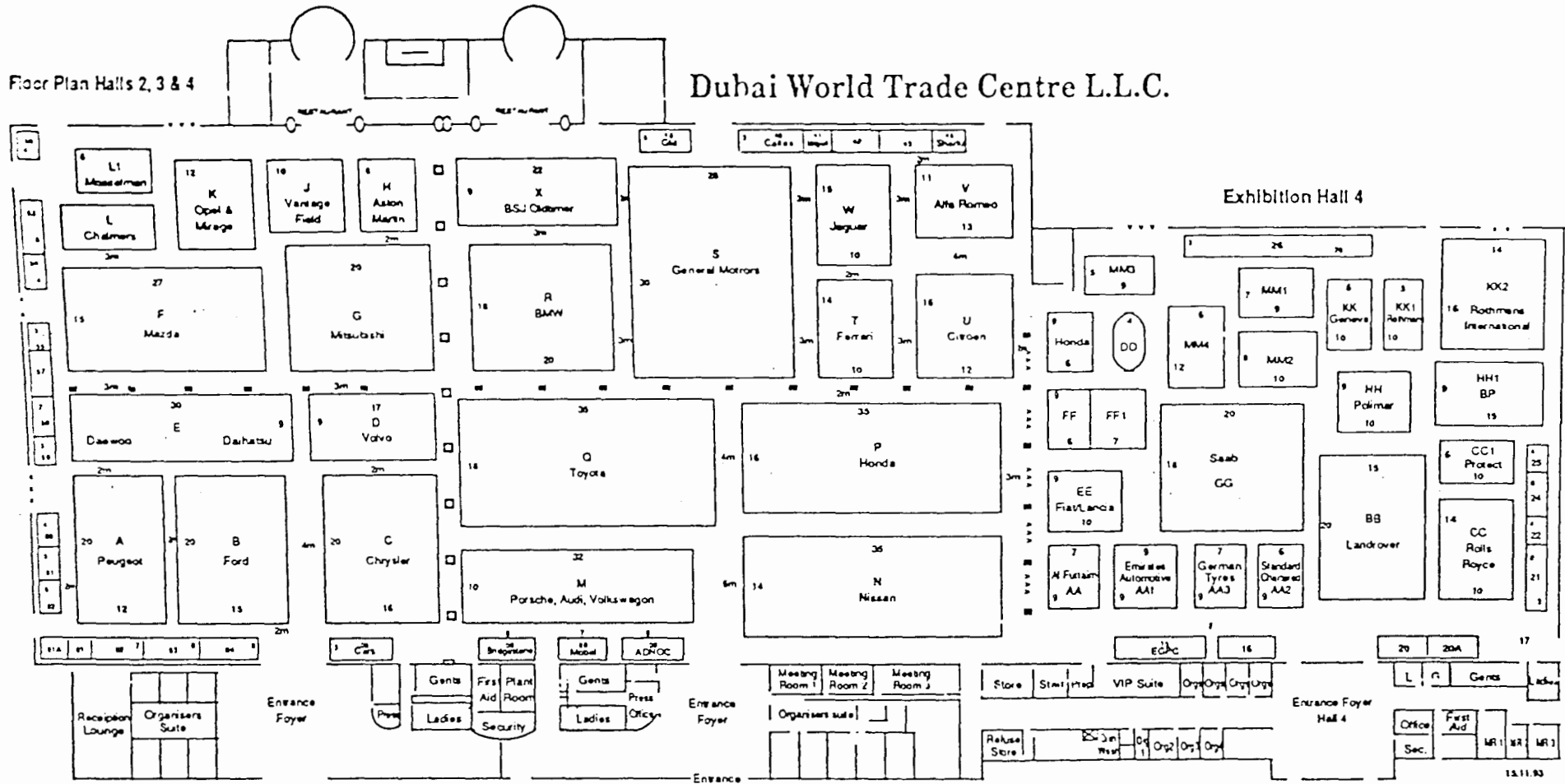
DUBAI WORLD TRADE CENTER
HALLS 3 & 4



معرض الشرق الاوسط الدولي للسيارات The 2ND Middle East International Motor Show

نظمت بواقع المارفين

Exhibition Plan



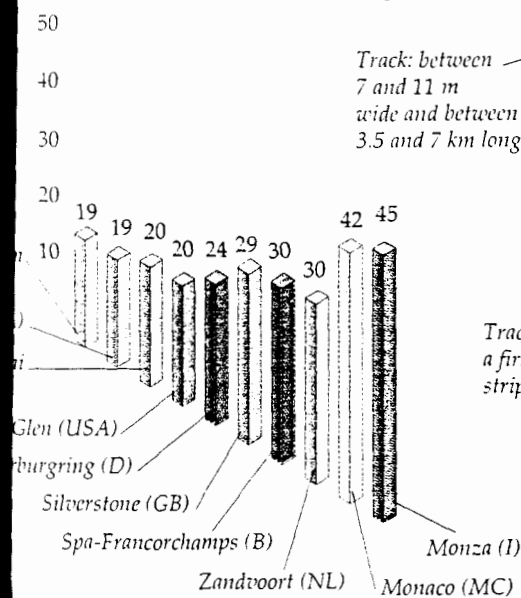
N.B.: Although this exhibition floor plan is drawn to scale on computer, measurements on printed copies may vary slightly. If specific measurements are important to you, please ask the organisers. Stand measurements are marked in metres.

15.11.93

Formula 1 circuits

IN 45 YEARS, F1 has visited 57 circuits in 23 countries. Since 1984, the number of Grands Prix organised in a single season has been limited to 16, although the FIA accepted 17 rounds in 1995. Theoretically, individual countries are able to host just one race, although there are exceptions to the rule. The patronage of San Marino, for example, allows Imola a second race in Italy, while a second Grand Prix is held in Japan under the label "Pacific Grand Prix". The introduction by the FIA of strict safety standards coincided with the disappearance of many legendary circuits as Brands Hatch and Zandvoort.

NUMBER OF GRANDS PRIX PER CIRCUIT SINCE 1950



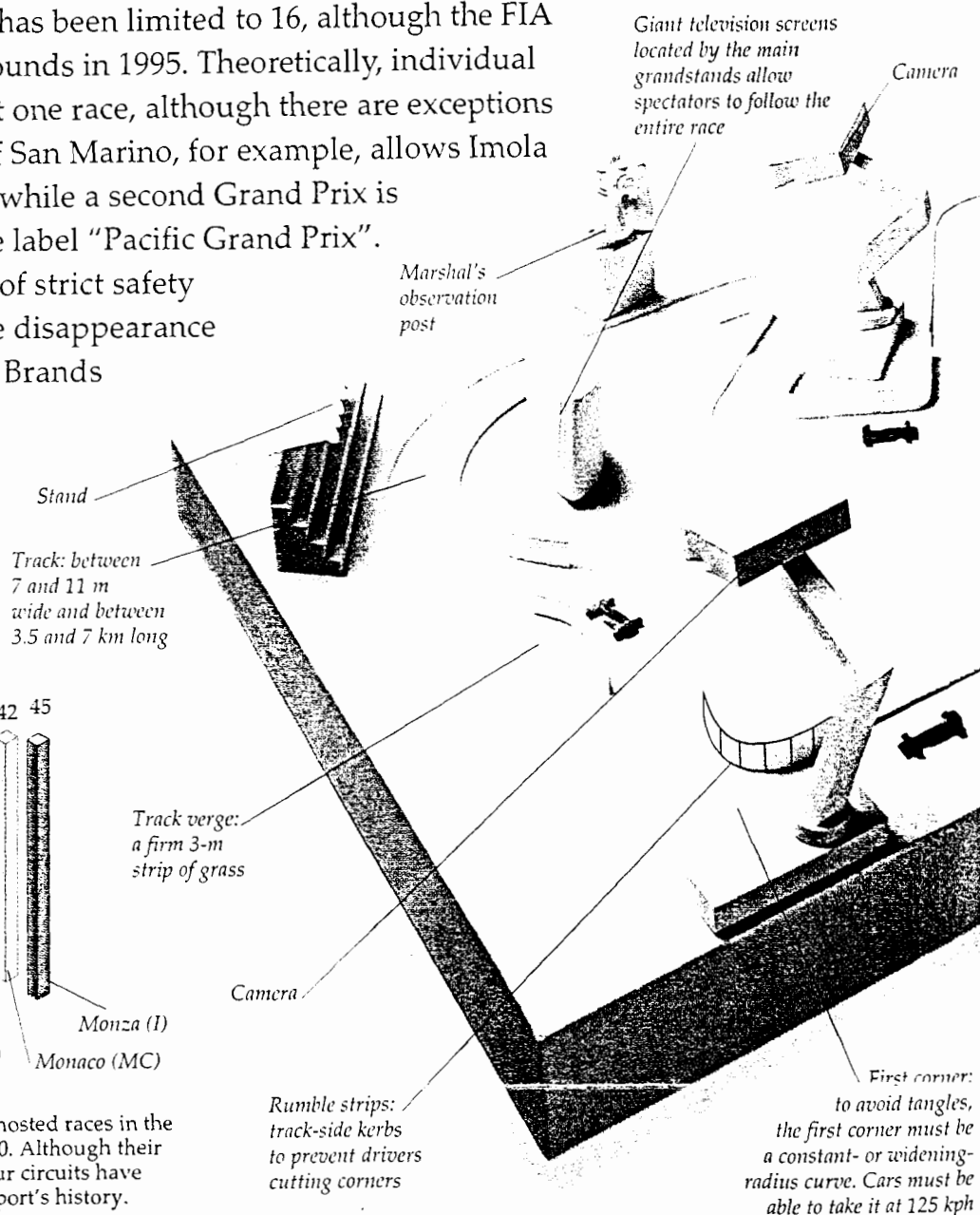
Spa, Silverstone and Monza all hosted races in the first F1 World Championship in 1950. Although their circuits have since been revised, these four circuits have had the highest number of races in the sport's history.

CALENDAR

Argentina Buenos Aires April 9 4.259 km	San Marino Imola April 30 5.040 km	Spain Barcelona May 14 4.747 km	Monaco Monte-Carlo May 28 3.328 km	Canada Montréal June 11 4.430 km	France Magny-Cours July 2 4.271 km	Great Britain Silverstone July 16 5.226 km	Germany Hockenheim July 30 6.802 km	Hungary Budapest August 13 3.968 km	Belgium Spa August 27 6.940 km	Italy Monza September 10 5.800 km	Portugal Estoril September 24 4.350 km	Europe Nürburgring October 1 4.542 km	Pacific Aida October 22 3.703 km	Japan Suzuka October 29 5.864 km	Australia Adelaide November 12 3.780 km

CIRCUIT FACILITIES

A Formula 1 circuit is visited annually by inspectors to ensure that mandatory FIA requirements are met.



Stands: must be separated from the track by wire fences and a 1.2 m high rail

Emergency evacuation helicopter: neither the race nor practice can start without it

TV aerial

Permanent medical centre: must be located in a protected site close to the pits with operating theatre and resuscitation room

Camera

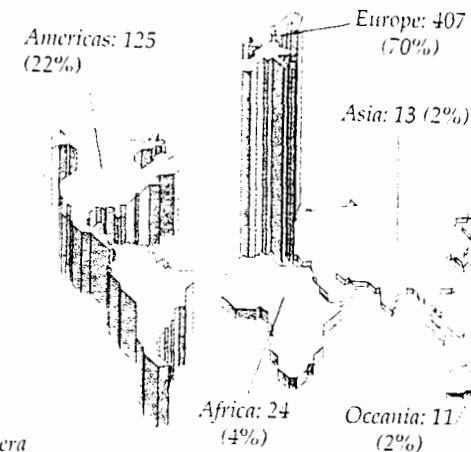
Race control, located on the first floor of a control tower overlooking the entrance to the pits, is linked by radio to the marshals' posts

Pits, one per team, must be permanent

Sponsors' hospitality balconies overlooking pits

F1 Paddock, located just behind the pits and not accessible to the public, is where teams' transporters and motorhomes are parked

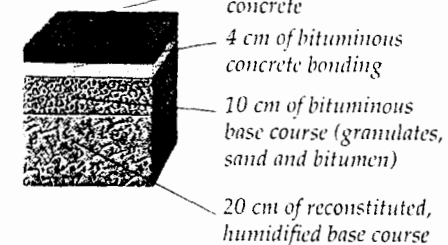
Start-finish straight: 12 m wide, it must also measure 250 m in length to avoid the formation of bottlenecks



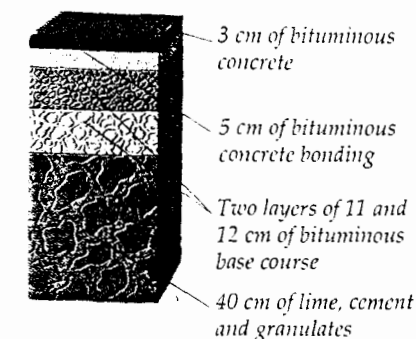
GRAND PRIX RACES PER CONTINENT

ACROSS FIVE CONTINENTS
Although initially European, F1 has become a truly global sport. However, it would be difficult for it to deny its origins, since 11 of the 1995 calendar's 17 rounds took place on European soil.

A FORMULA 1 TRACK: 38CM



MOTORWAY: 71CM

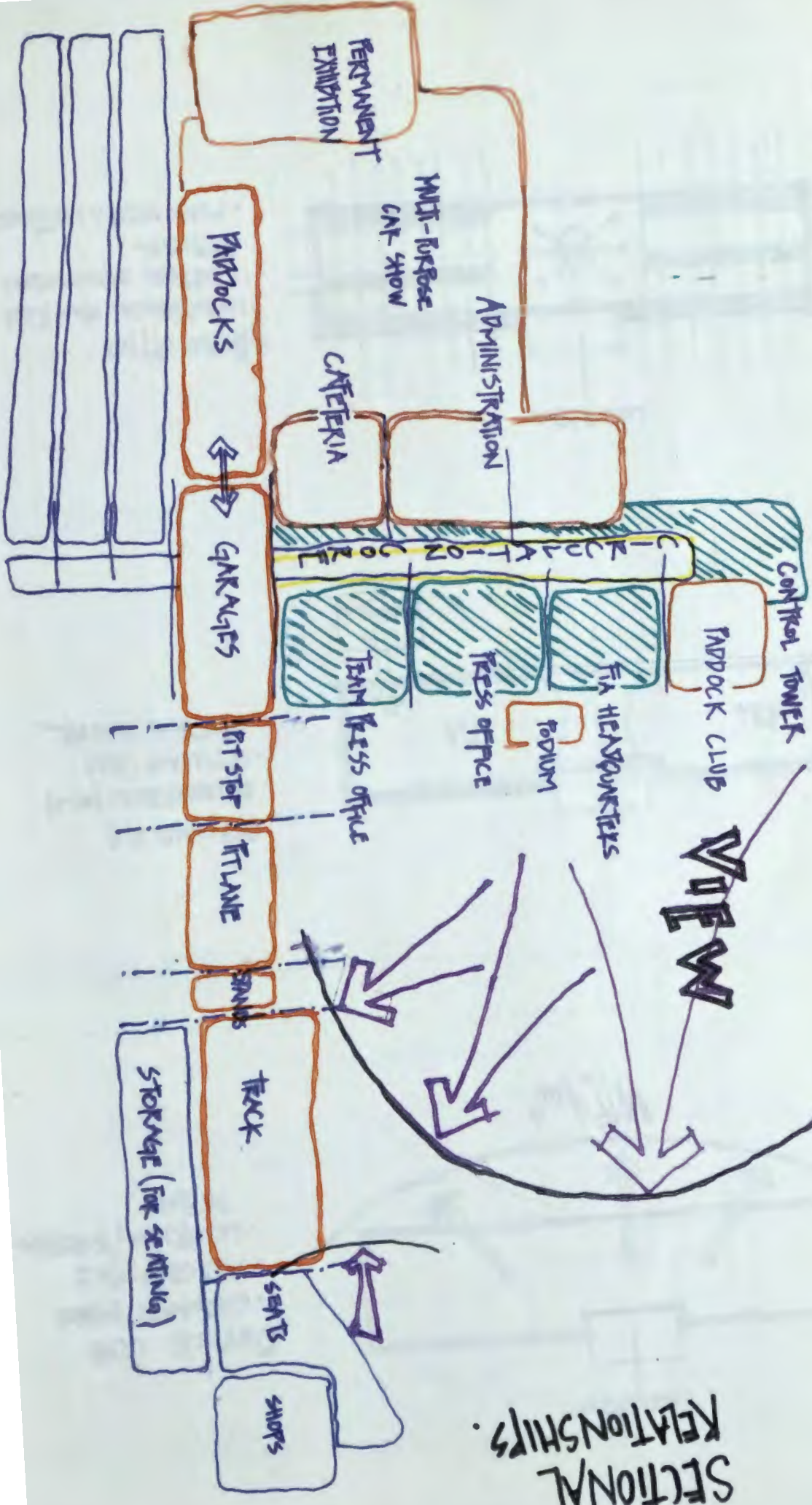


LONG-WEARING OR GOOD GRIP

A motorway and a Formula 1 track do not serve the same purpose. The former must be able to withstand continuous heavy traffic and this explains its deep foundations. A Formula 1 track must be as smooth as possible, yet still feature a high coefficient of grip. This is achieved through the use of rough-edged granulates that give tyres something to hold on to through corners

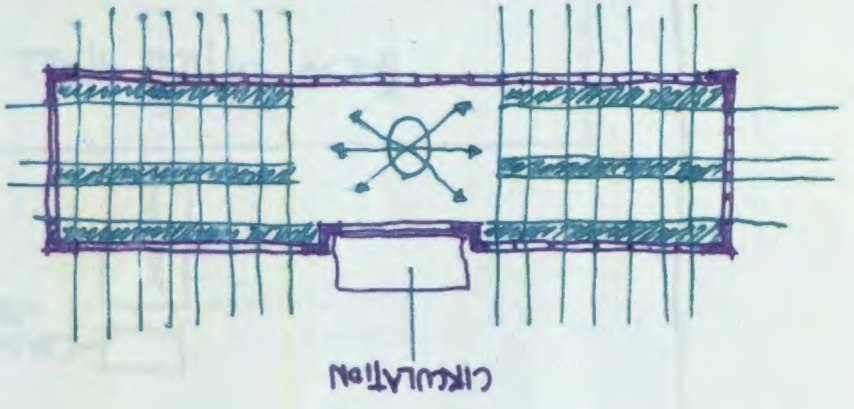
STATISTICS.

SECTI

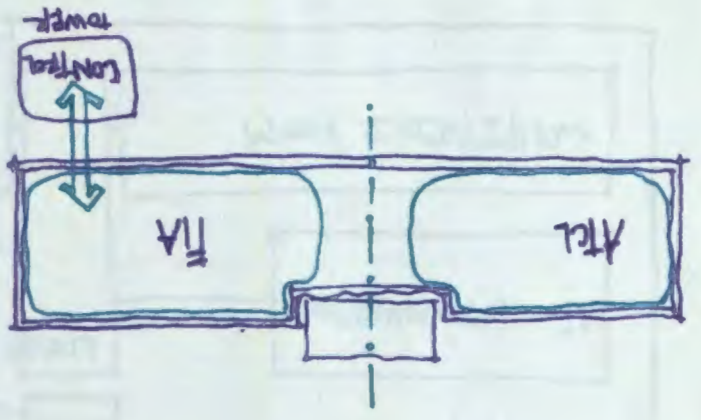


SECTIONAL RELATIONSHIPS.

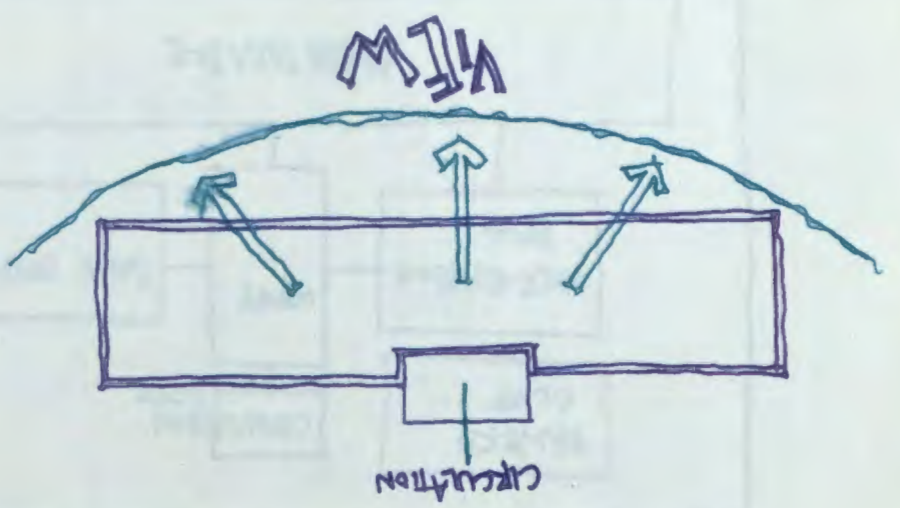
- PRESS OFFICE
- LONGITUDINAL OPEN PLAN
- CENTRAL INFORMATION DIFFUSER
- MAIN MEDIA NETWORK

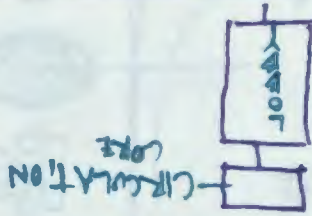
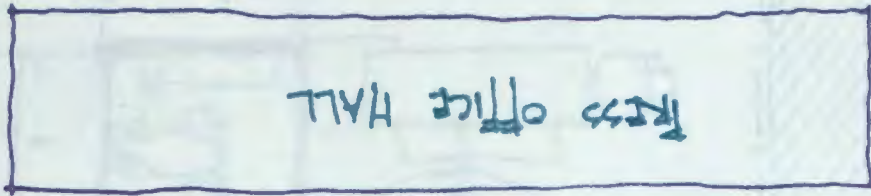


- OFFICIALS H.Q.
- ORGANIZATION (MCL)
- OFFICIALS (FIA)
- CONTROL TOWER

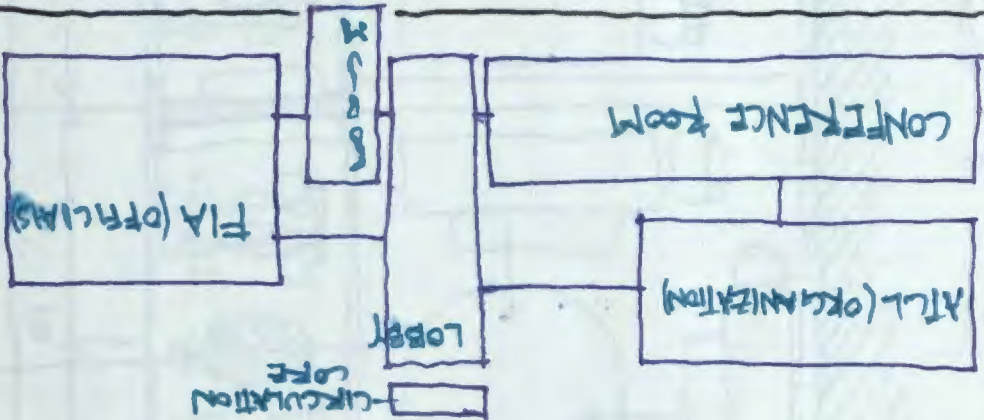


- RABDOCK CLUB
- CORPORATE IMAGE
- BRACKETED SPACE
- LUXURIOUS/POWERFUL SETTING

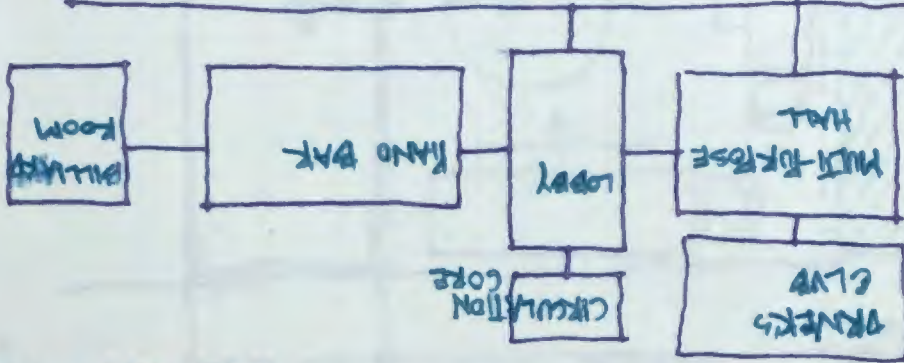
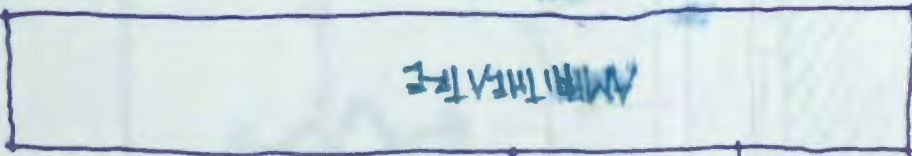




Media Press Office



Head Quarters



Raprock Club

REFER TO MACHINE/PAPER

3D REFLECTIONSHIP (IMAGE OF THE PC)

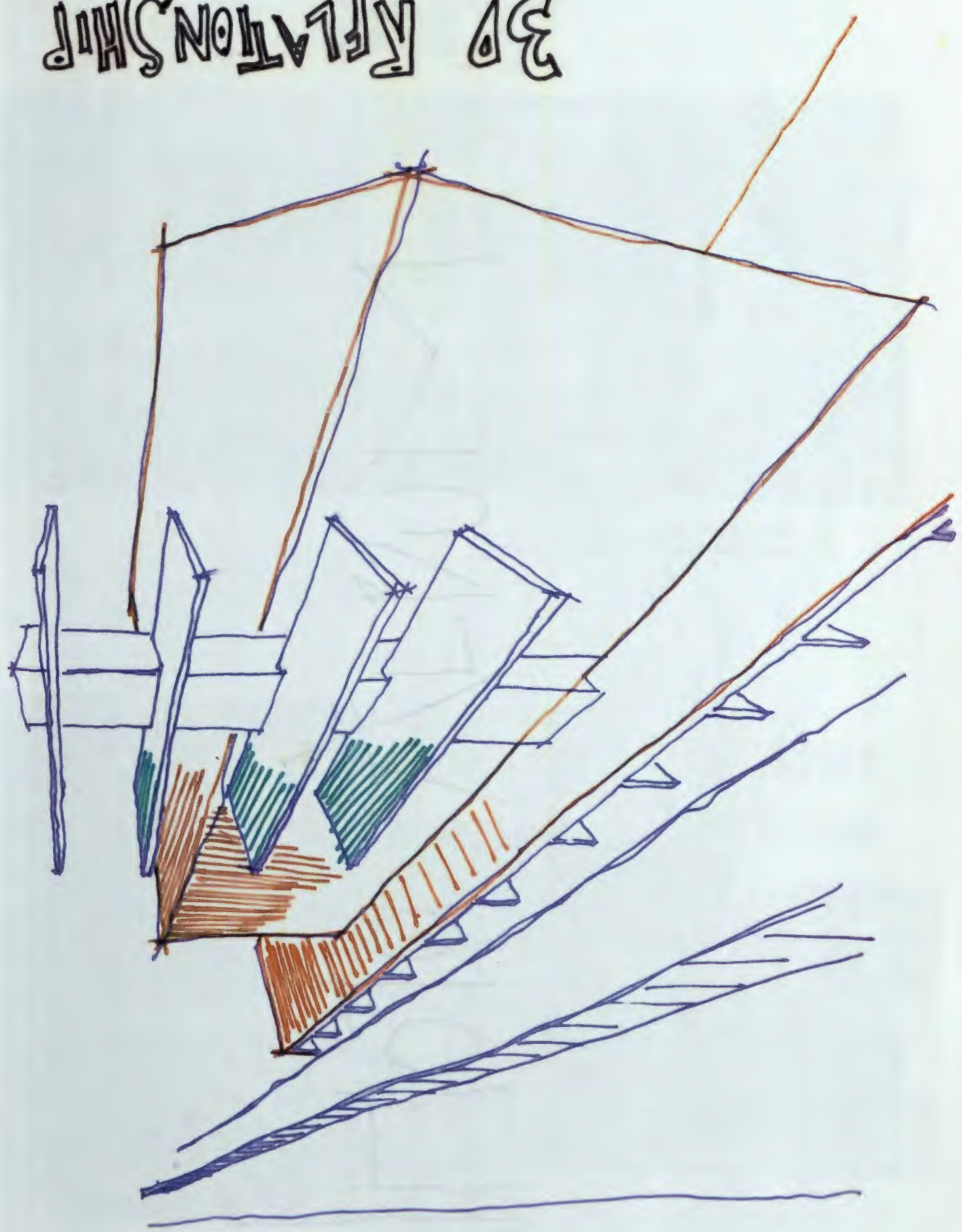
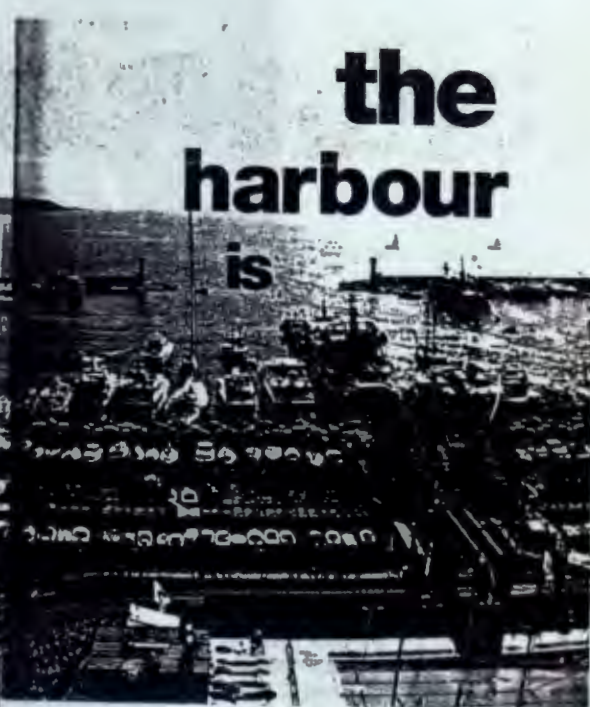


Photo Album.

Striptease



The yellow line marks the proposed route of the track; the buildings are mostly casinos

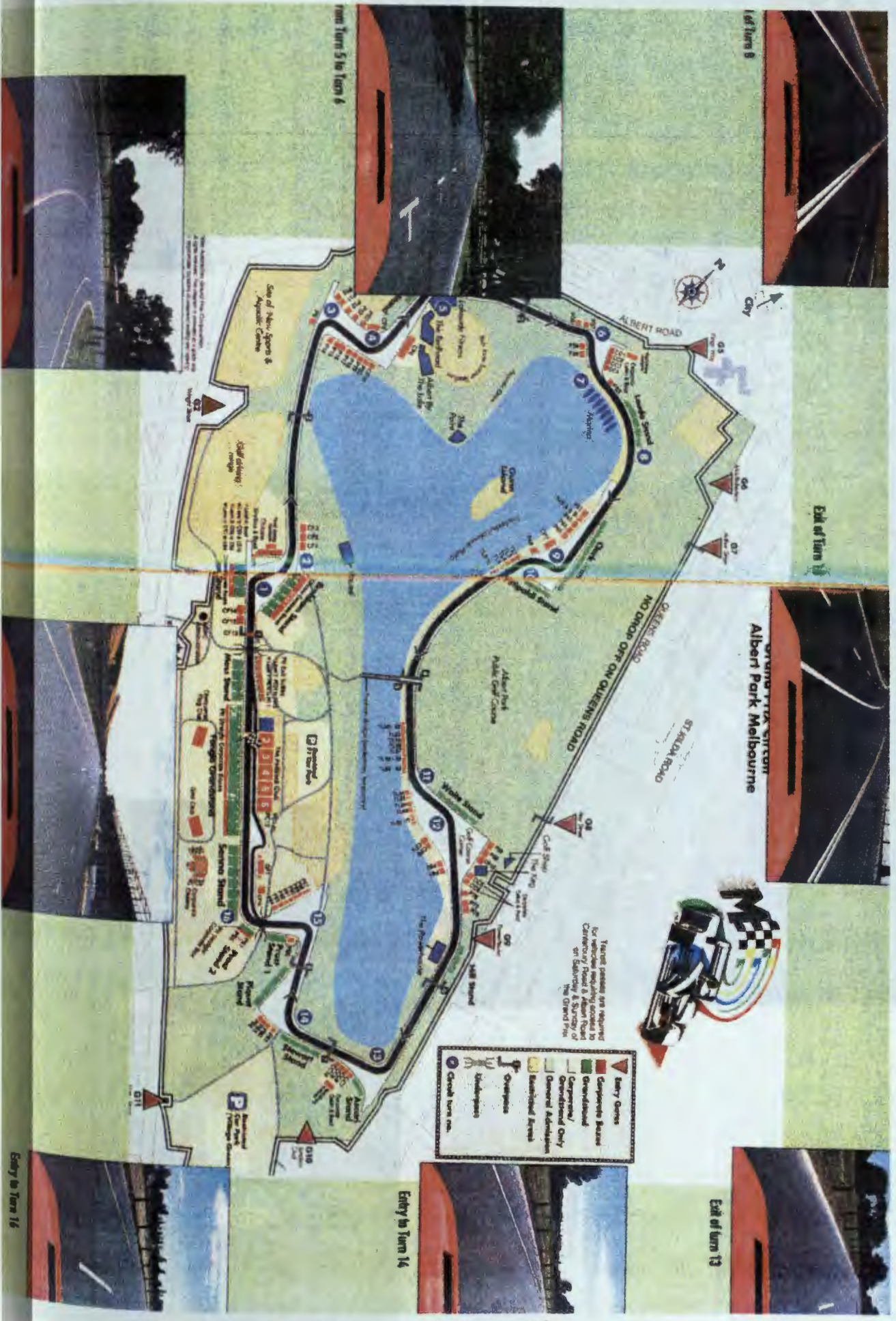




DETROIT 'MOTOWN' TRACK .



The champ keeps his
Ferrari clear of the
barriers (in qualifying)



F1 TRACK, SHOWING
Paddock, Pitlane, Stands.

Entry to Turn 16

Entry to Turn 14

Exit of Turn 13

Albert Park Melbourne

Tickets passed are required for vehicles requiring access to Circuitry Road & Albert Road on Saturday & Sunday of The Grand Prix.

- Safety Barriers
- Corporate Boxes
- Grandstands
- Corporate/Operational Only
- General Admission
- Restricted Areas
- Overpass
- Underpass
- Circuit Turn No.









BARRICHELLO 

JORDAN

 **BRUNDLE**



parade



EXPECTANCY: 100,000 VISITORS
ARRIVAL: 300,000 VISITORS





~~MAXIMINE ARCHITECTURE~~

Machine/Architecture:

“ The establishment of a standard involves exhausting every practical and reasonable possibility, and extracting from them a recognized type conformable to its functions, with a maximum output and a minimum use of means, workmanship & material, words, forms colors, sounds.

The motor-car is an object with a simple function (to travel) and complicated aims (comfort, resistance, appearance), which has forced on big industry the absolute necessity of standardization. All motor-cars have the same essential arrangements. But, by reason of the unceasing competition between the innumerable firms who make them, every maker has found himself obliged to get to the top of this competition and, over and above the standard of practical realization, to prosecute the search for a perfection and harmony beyond the mere practical side, a manifestation not only of perfection and harmony, but of *beauty*.”

Here we have the birth of style, that is to say the attainment, universally recognized, of a state of perfection universally felt.

“The establishment of a standard is developed by organizing rational elements, following a line of direction equally rational. The form and the appearance are in no way preconceived, they are a result, they make a strange look at first sight. Ader made a bat but it did not fly; Wright and Farman set themselves the problem of sustaining solid bodies in air, the result was jarring and disconcerting, but it flew. The standard had been fixed, practical results followed.

The first motor-cars were constructed, and their bodies built, on old lines. This was contrary to the necessities of the displacement and rapid penetration of a solid body. The study has evolved in accordance with two different aims: speed, the greater mass in front (sporting bodies);

comfort, the main bulk at the back (saloon). In either case there is no longer anything in common with the ancient carriage with its slow displacement.” These words were written by Le Corbusier on his visions “Towards a new architecture”. The interesting thing about it is that it was written in 1927, i.e. before F1 races were initiated.

But in his book Le Corbusier states exactly what is to become in the years to come, for evolution of the motor-car on the basis of ‘form follows function’, standardization, ergonomics, efficiency, economics, & competitiveness, is direct resultant from the AFC.

The building that houses F1 needs to reflect the efficient organism that is working within it. With efficient organism I mean what industry has brought us to the mass-produced articles; *machinery is at work in close collaboration with man; the right man for the right job is selected coldly; workmen, engineers, drivers, logistics, managers, mechanics, technicians, & and paperwork employees.* “Specialization ties man to his machine, an absolute precision is demanded of every worker, for the task passed on to the next man cannot be corrected and fitted”. The whole procedure is based on a delicate balance of minute detailing, synchronizing and cooperation, the hundred of a second becomes the reference.

And this basically is what F1 and car industry per say, are all about; efficiency, team spirit & cooperation.

I see this reflection of the image on two levels:

- 1- On the conceptual level: *(the metaphor of the PC)*, the concept which has to work on a parallel line with the nature of the task its built for, i.e. on a logic of its own, simulating the logic of a PC, having a main mother board [building], hooked to it the data feeders [pits,

paddocks, stands] which are supplying it on independent basis, and are linked directly to the input [the track], this is all functioning with a processor [team head quarter, officials headquarters], data will be stored in C: [officials & teams press office], to be retransmitted to screen [media coverage] the press, re-transmitting them to the user [spectators].

On the material level; (*hi-tech the emergence of a new phenomenon in building*):

On first impression, a spectator depicts two main features of a building; massing and colors (visual interaction), the former is guided by the conceptual outline (discussed above), while the latter is depending on the use of material, thus the need for hi-tech materials, lightweight, truss system, transparency, audio visual display as main criteria's, to reflect the car industry as an image, and the inner logic of the building as a space as well.

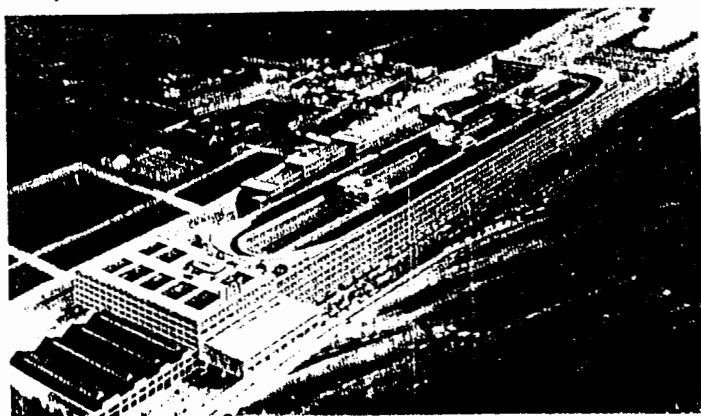
From the Fiat factory in Turin (1915) to the Renault Center in Swindon (1982):

Construction materials have also witness a dramatic revolution along the industrial lines. From the proud bulk of the reinforced concrete in the early stages of the century to the revolutionary discovery of steel and tensile material for construction purposes, (that led to what we call now 'hi-tech' construction), passing by structural expressionism.

To illustrate more, I will take two prominent examples to analyze.

1- Fiat factory, Turin, Architect Matte' Trucco, 1915-21:

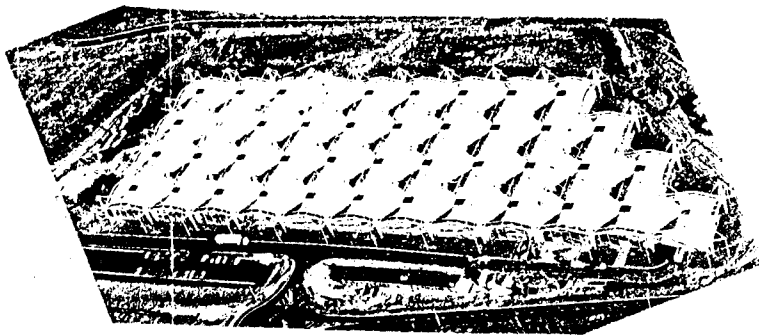
This building was one of the first megastructural all concrete co-



nstruction of the time, "its appropriation as the primary expressive element of an architectural language, came as the result from demonstrating that flat roofs could sustain the vibration of dynamic moving loads - it had a testing track on its roof"

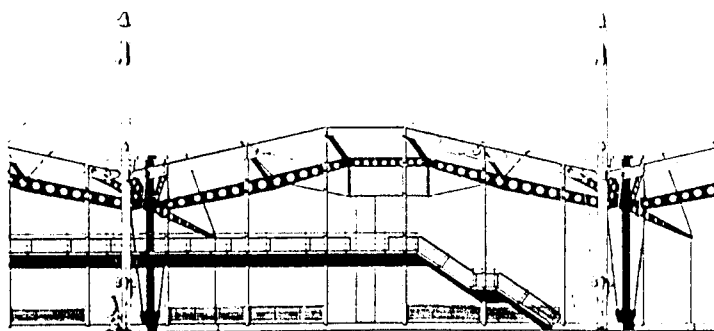
The complex is the revelation of modernism in his acute understanding, in the sense that the factory is shaped by a simple massing with an efficient longitudinal layout, grided elevations, and mat colors, modernism in its heydays..

2- The Renault centre in Swidon, UK, (1982):



From the outset, the development of an integrated planning and structural module dominated the design, so much, that it has been described as 'a structure that eventually became a building.

The building is about a huge ware house with exposed structures. The

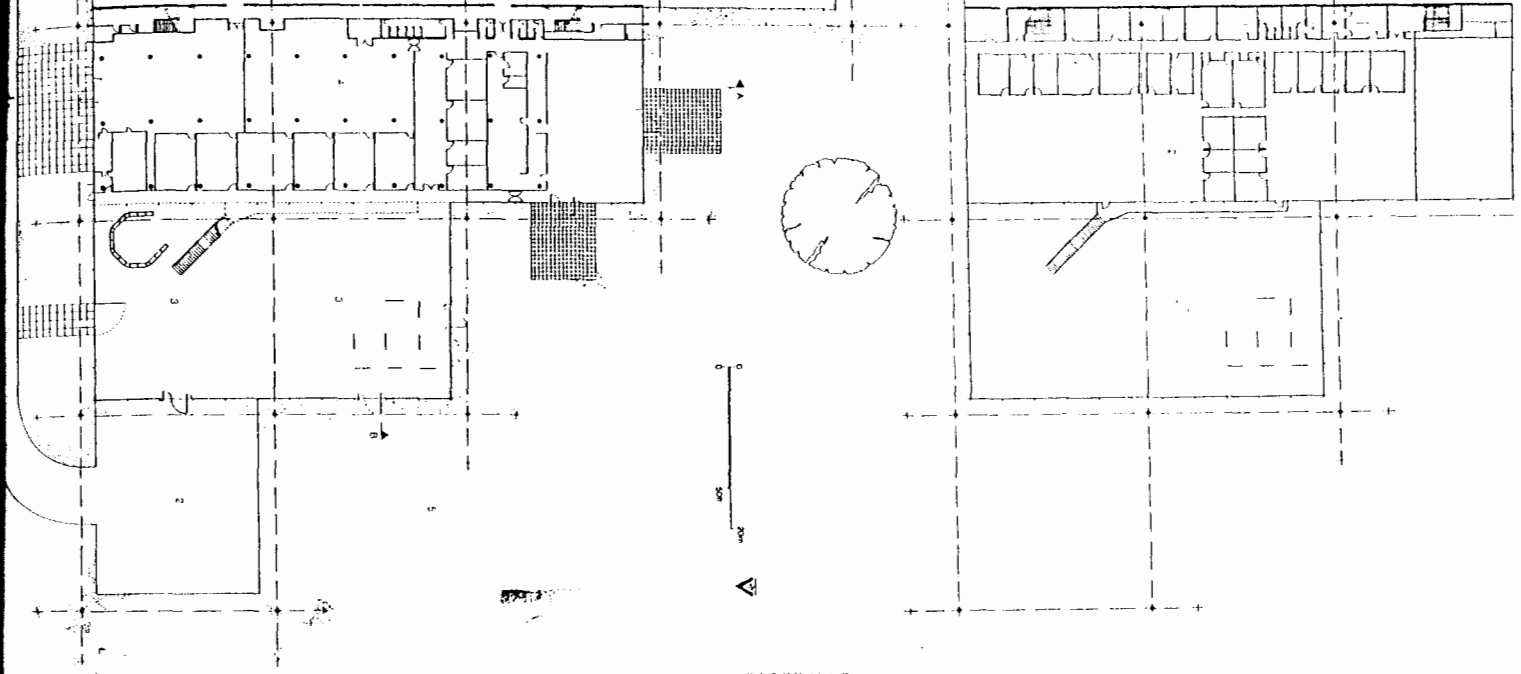


technics of production used are intimately tied up with the flexible, modular planning concept; if that sounds like the familiar modernist jargon, there is a vitally important difference. Whereas orthodox modernism (Fiat factory) preaches standardization and mass-production on a global scale, the standardization at Renault is confined

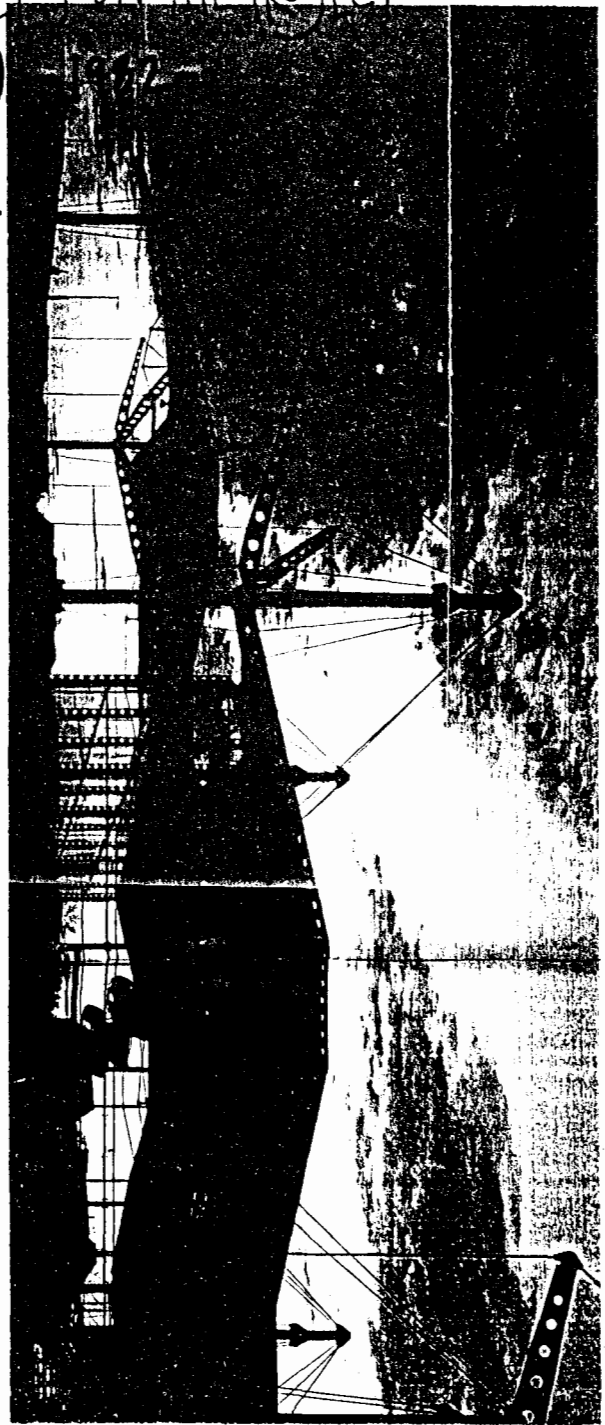
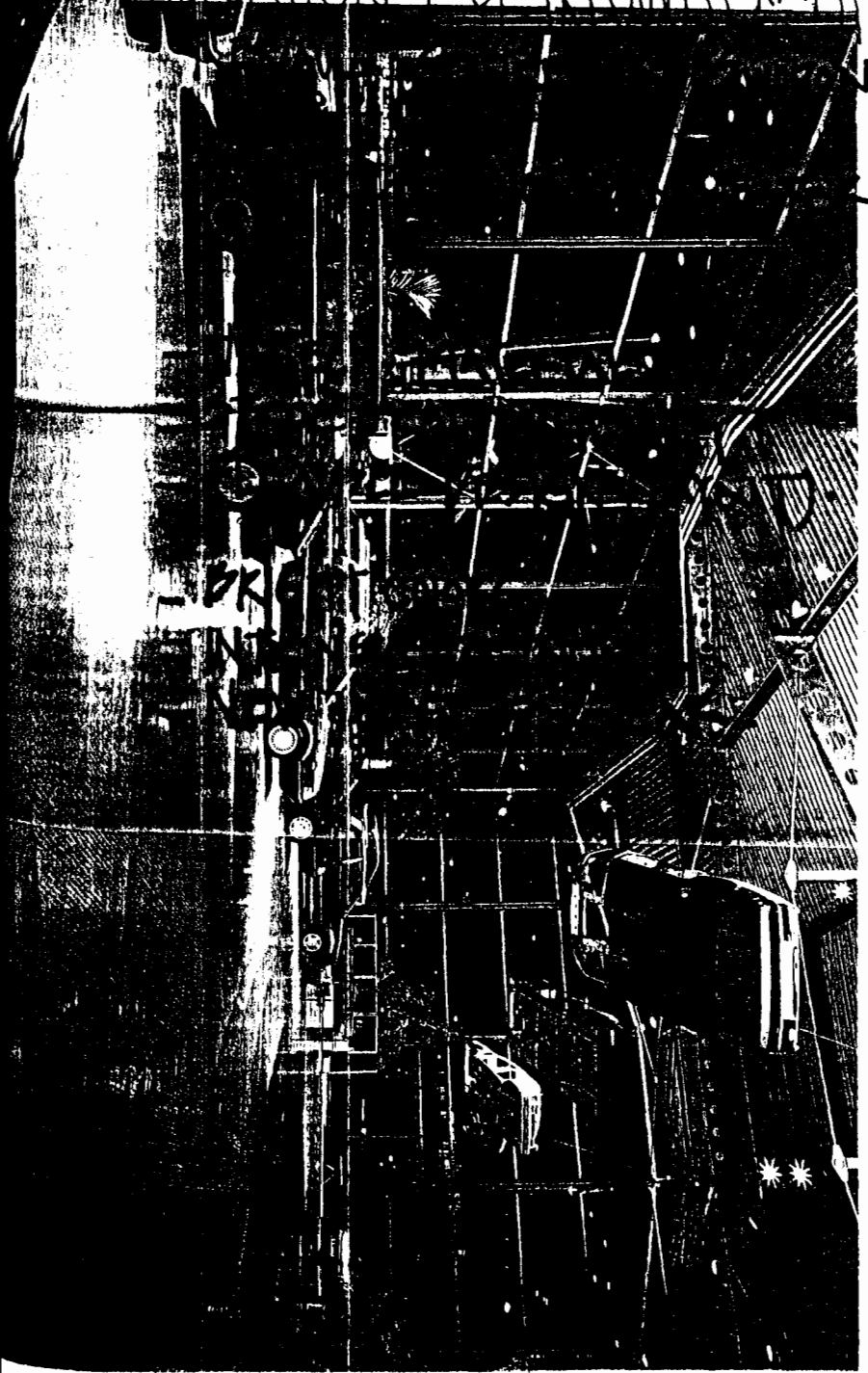
to small batch production of the building's own systems, The only real mass-production to be seen is in the spare parts stored in the warehouse. The building itself is anything but standard, it is enriched by the structural lines themselves.

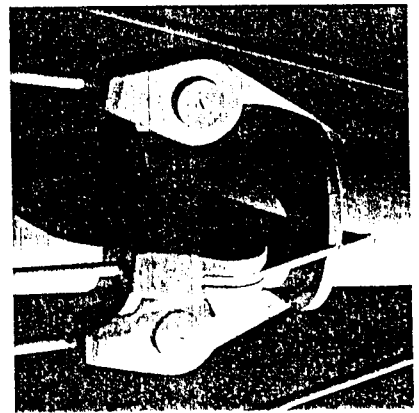
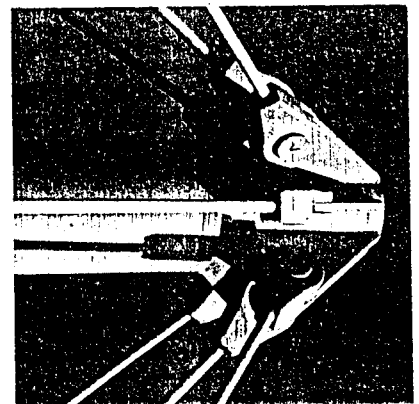
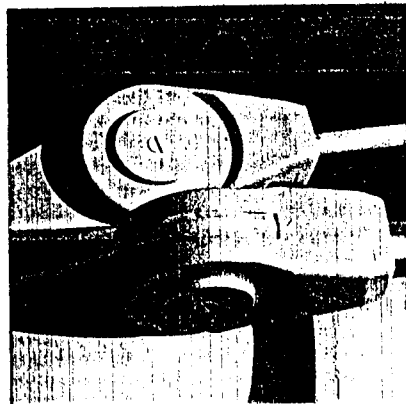
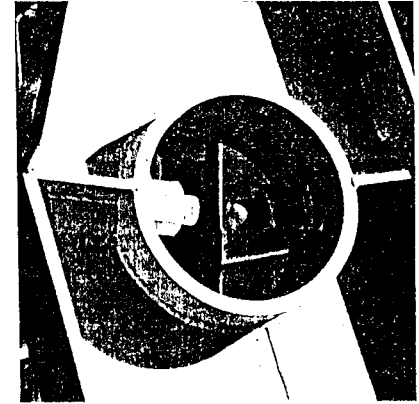
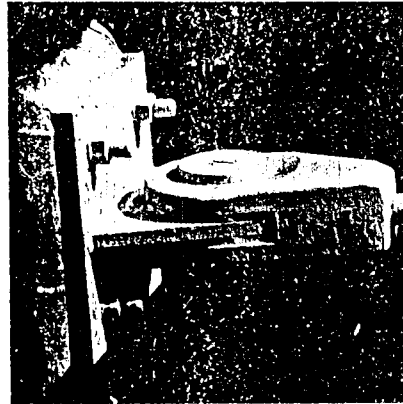
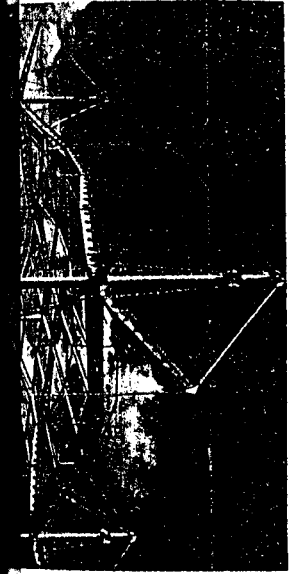
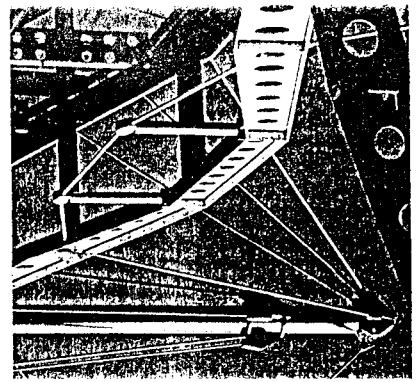
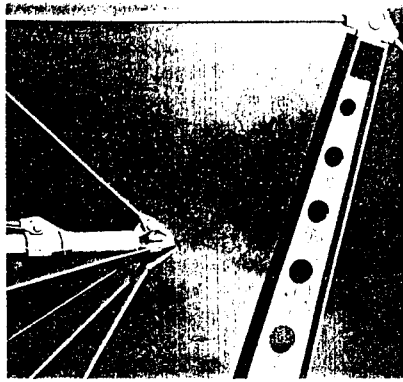
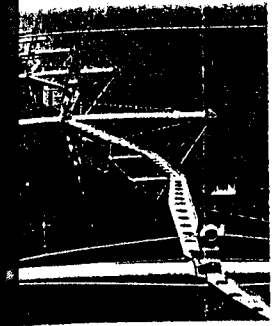
This type of building proves that the modernist dream to reconcile machine production with the arts and crafts of architecture is finally within reach. Paradoxically, the dream can be realized only by rejecting some of Corbu's tenets and re-elaborate on the Fiat factory by embracing a new and more flexible concept of machine production.

REVIEWS
EXAMPLES



IMPLICATIONS OF PREVIOUS EXAMPLES ON THE PROJECT





Inland Revenue offices,
Nottingham, England
Architects
Michael Hopkins &
Partners



Nottingham is one of those English industrial cities that was badly bombed during the war, brutally redeveloped in the moderate prosperity of the 1960s, after which it lost a good deal of its manufacturing capacity. During the celebrated Thatcher economic miracle of the 1980s. None of these events has had a benign effect on the social and physical fabric of the city, and in the early 1990s, the Government was prevailed on to build a new complex for the Inland Revenue (the body that gathers British income tax) which would bring nearly 2000 new jobs to the town. A contract was set in hand for a private firm to build them immediately below the Castle Road.

Unfortunately, the Government (in a too public realm always undersold with money) had commissioned a design for the project, which as its ghastly nature was revealed when it began to emerge out of the ground, caused a huge local and national public outcry. The Government was (amazingly) rebuffed that Treasury Minister Francis Maude called the whole operation to a halt (it had to be wrenched from the clay), and it hastily convened a limited architectural competition in 1992; entrants included Richard Rogers, Evans & Shalev, Arup Associates, and Hare and Demetri Porphyrios.

The Hopkins proposal won for at least two reasons besides its undoubted architectural and spatial qualities. First, it would be built fast, using technology that had broadly been tested though it is sufficiently unusual to deserve a separate article to the story of the construction - see pp43-45). Not only was to be lost, for by the time the decision was made to cancel the first project, many Inland Revenue employees had already moved to Nottingham, and were housed in a miscellany of local buildings which had been taken on short leases: if these fell in before the new building was ready to accommodate the people, the Government would face a very large increase in the cost of the whole operation.

The second reason for preferring the Hopkins scheme was that it divided the accommodation up into discreet buildings; this allows individual parts of the complex to be let or sold off as technology and government management systems change, and it facilitates phased take-over as individual groups of people become available to move in.

IMPLICATIONS OF PREVIOUS EXAMPLES ON THE PROJECT.

INLAND REVENUE OFFICE, UK

ARCHITECT: MICHAEL HOPKINS

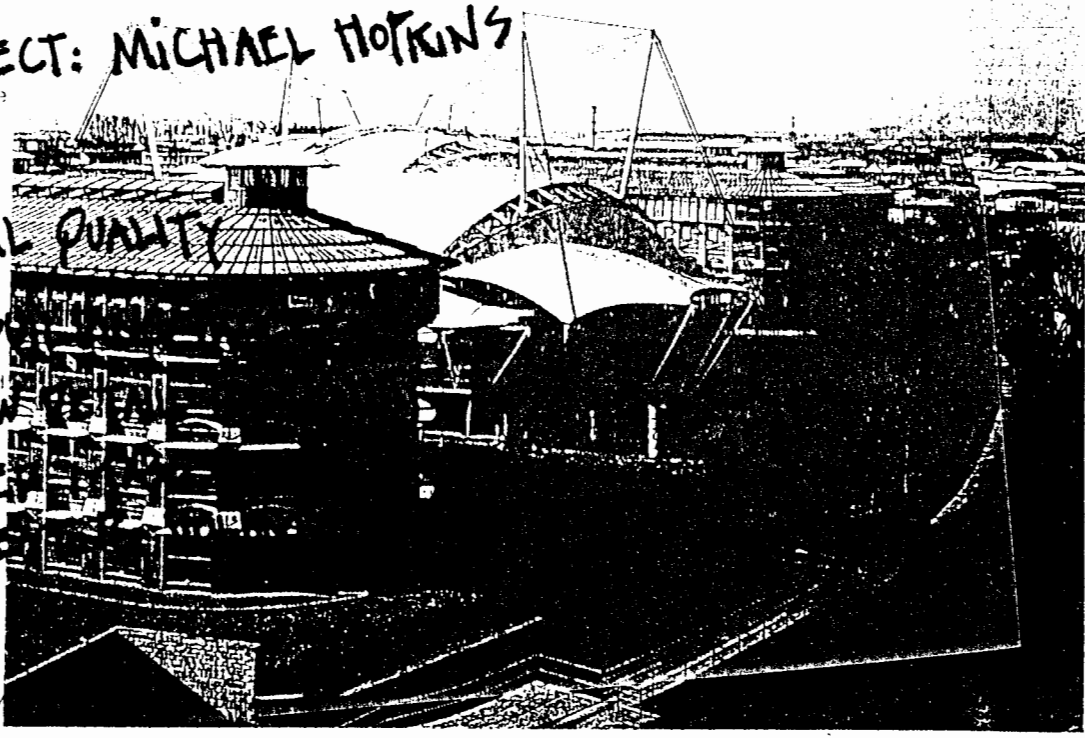
SPATIAL QUALITY

FAST BUILDING

WINDOW DESIGN

IMPOSED

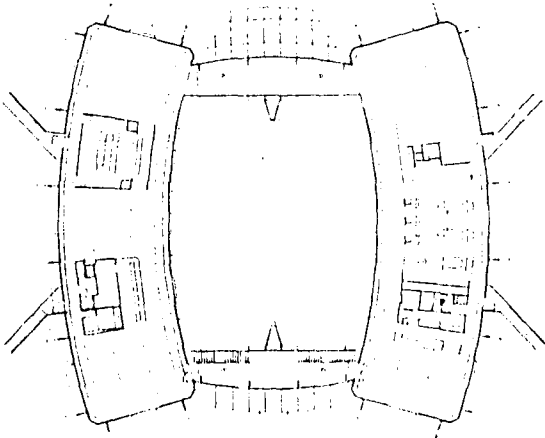
INTEREST



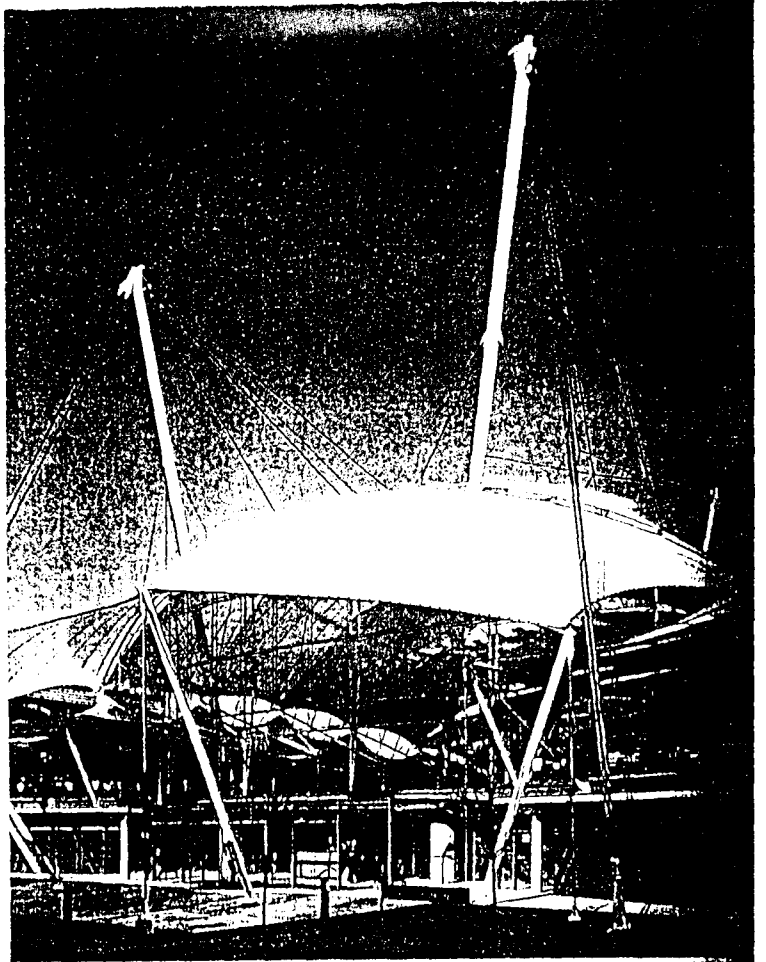
Inland Revenue offices,
Nottingham, England
Architects
**Michael Hopkins &
Partners**

16
Reception for whole site is in the
amenity building.

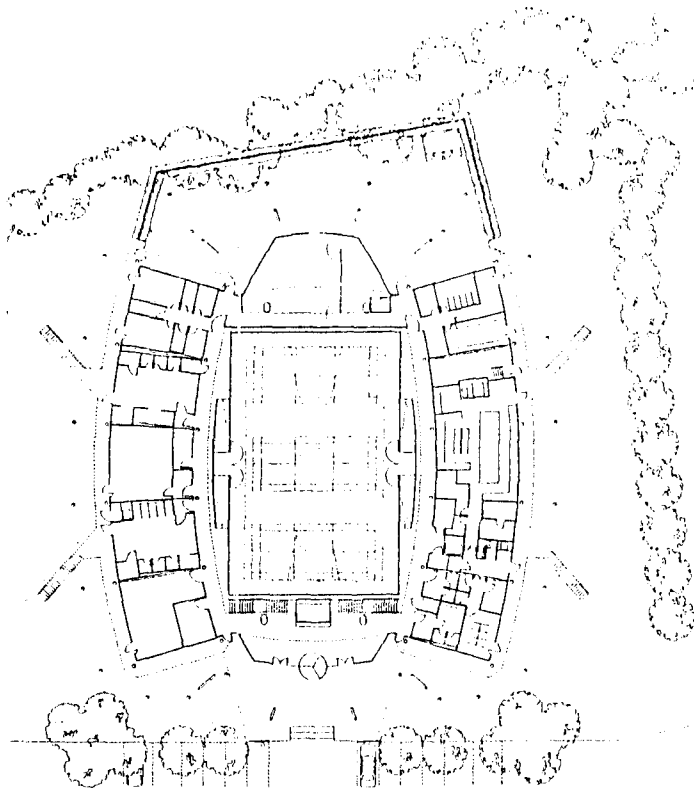
17
Full-height south-facing glass wall on
first floor of amenity building.



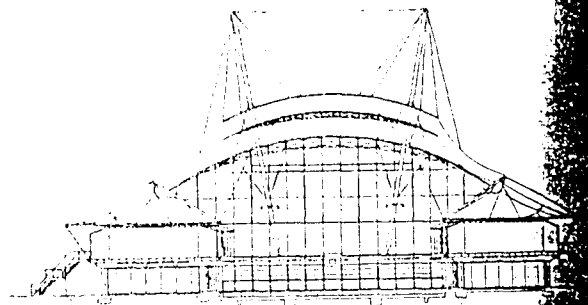
amenity building: first floor



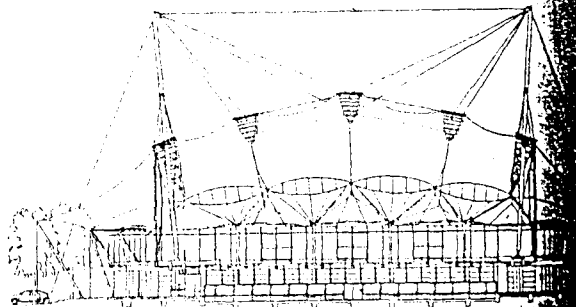
16



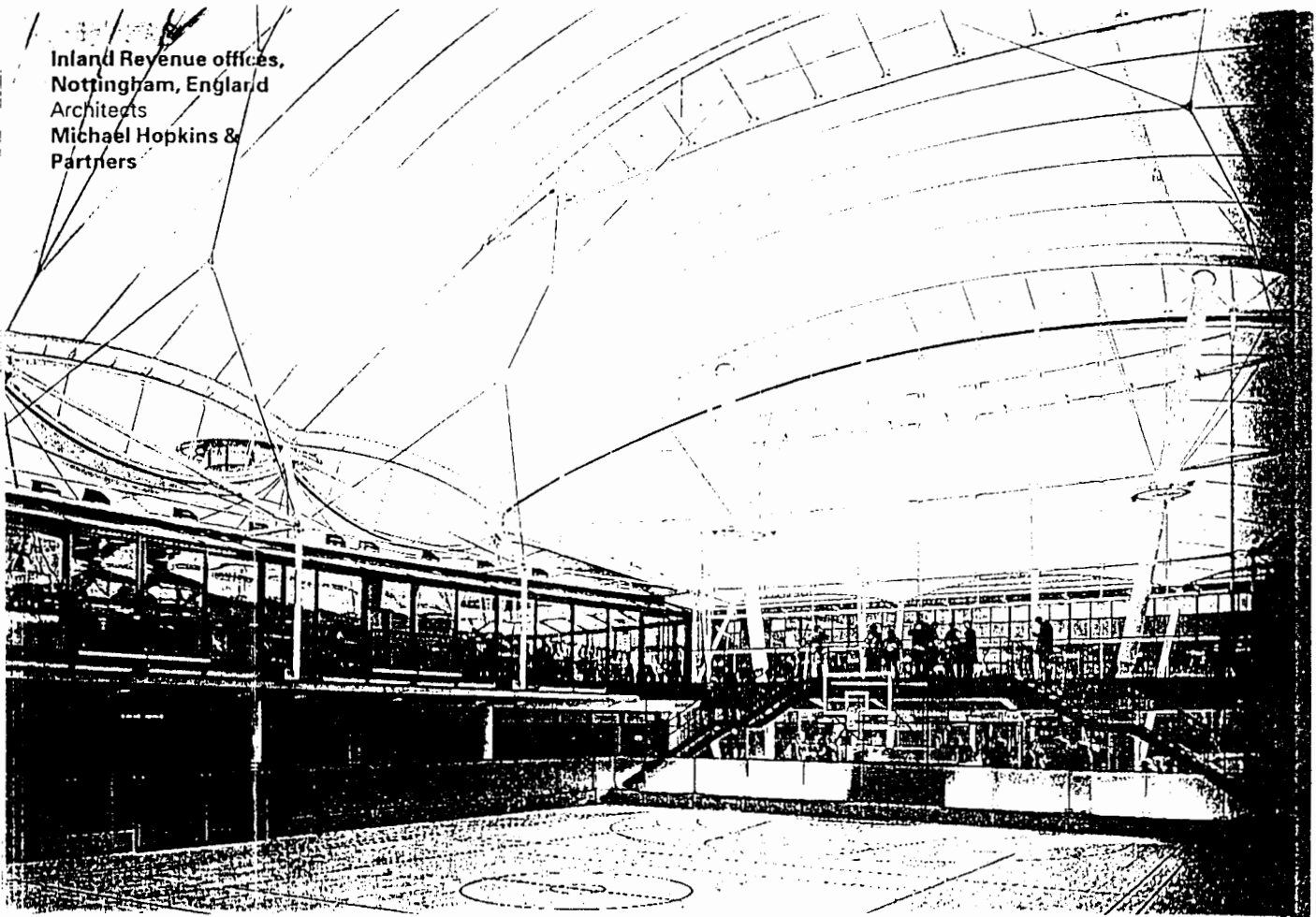
amenity building: ground floor scale approx 1:600



amenity building: transverse section



amenity building: longitudinal section



18

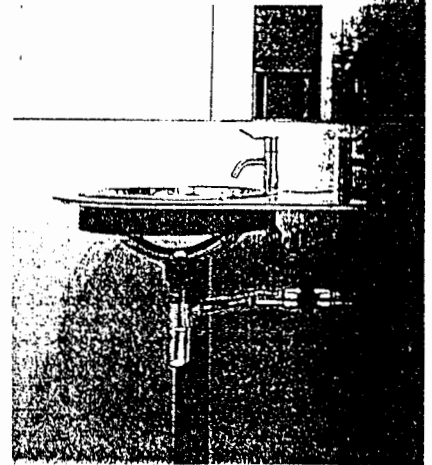
ceiling windows are opened.

The windows themselves have three layers of glass, with an argon-filled sealed unit on the inside and a simple cavity containing an elegant Venetian blind between this and the outer pane. The blinds, like the fans which supply air through the perimeter grilles, can be controlled by individual users. At present, they are designed to adopt automatically a 45 degree position against the sky at the beginning of each day and, unless they are adjusted, they tend to make the interiors seem rather gloomy after a sunny day outside. The architects hope to modify the blind control system so that their default position will be horizontal, while allowing people to modify their immediate environment when necessary to avoid glare. The increased transparency and light will make a great deal of difference to the normal feel of the space.

Leaving the office buildings by the revolving doors next to the glass-block towers, you are struck once more by the solidity of the whole place, and the strange way in which elements largely made in a shed off the site sometimes seem to have an almost Roman tectonic quality – perhaps the Ancients actually would have built in something like this way if they had had more efficient and mobile lifting gear. The urban result is rather solemn, and made more so by the lack of different small-scale uses at ground level: the scheme relates, as intended, to the brick-walled, grey-roofed

dignity of those Victorian buildings that remain round about. These never catered for small-scale uses, but there would seem to be no reason why the new building and planning strategy could not accept local transactions at ground floor when the programme allows for them.

In fact, all the non-office uses have been gathered together in a tented structure which dominates the northern side of the site. Just as the brick buildings are a development of a line of Hopkins thinking about masonry (and to some extent lead) that began at Lord's and was developed in the David Mellor factory and Glyndebourne, the recreation building comes out of the practice's continuing fascination with tensile structures, but here, instead of being combined with brickwork as they were at Lord's and Glyndebourne, virtually the whole structure is lightweight as it was at the Schlumberger laboratory building in Cambridge. The tent is hung from four great masts. Its edges, and those of the undercanopies are propped on more slender struts. Inside, a wooden floored multi-games court is surrounded by two stories of accommodation (only these are heated), with the reception area for the whole site at the front (no visitor can be in any doubt as to where to ask for directions). A crèche at the back has glimpses over lawns to the canal. The upper floor is devoted to staff eating and drinking, with a bar, cafeteria and restaurant



19

look over the Boulevards and the water, on up to the Castle. It is a decent place for lunch or for spending time after work. They talk that its facilities may be opened to the general public – a gesture which would connect the new complex to the town so as effectively as its architecture and plan make the link physically. P.D.

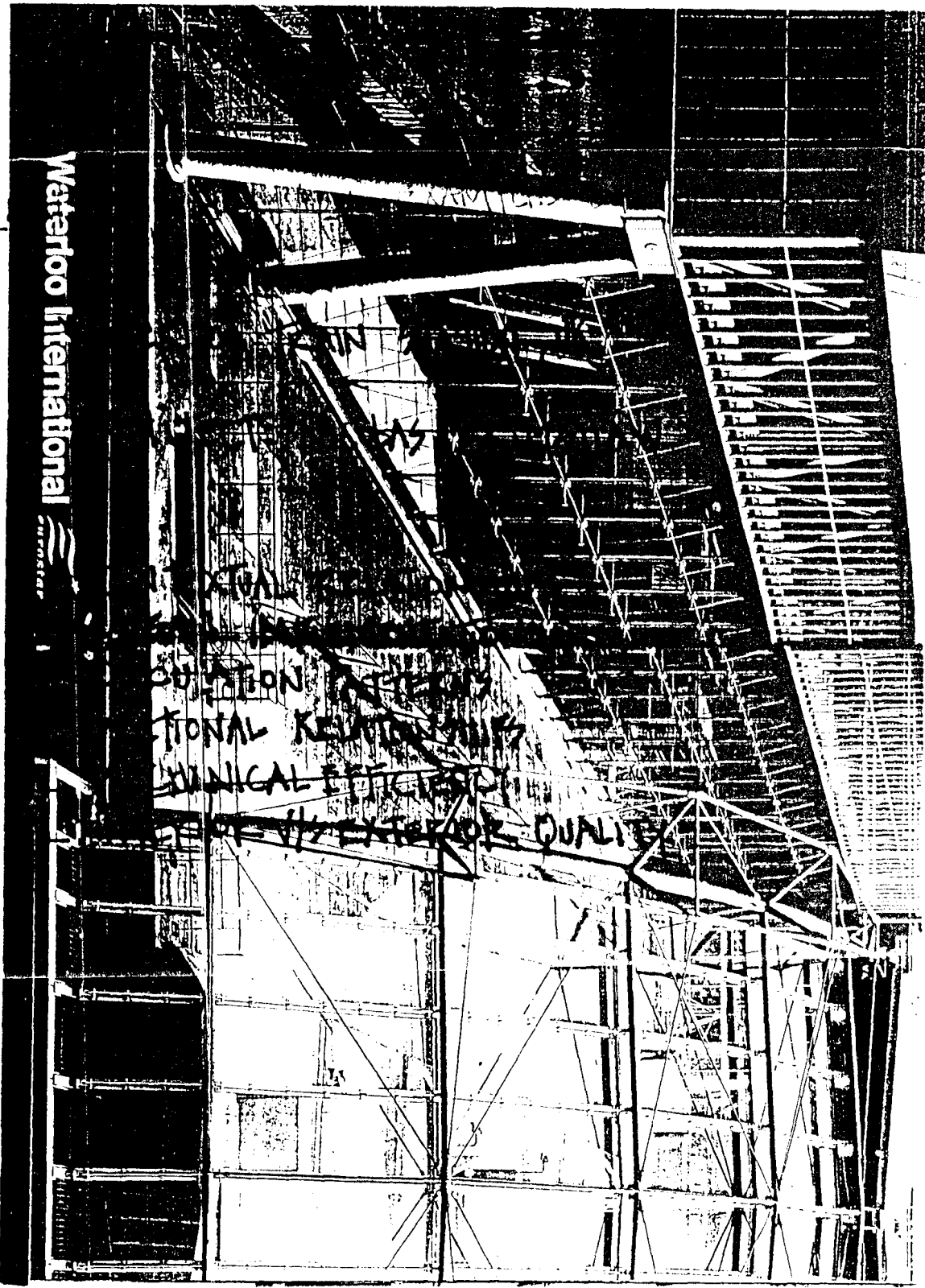
18
Amenity building: tented multi-purpose games pitch surrounded on first floor by restaurants and bar.
19
Standard staff wash-basins: as in everything else, meticulous attention to prefabricated detail.

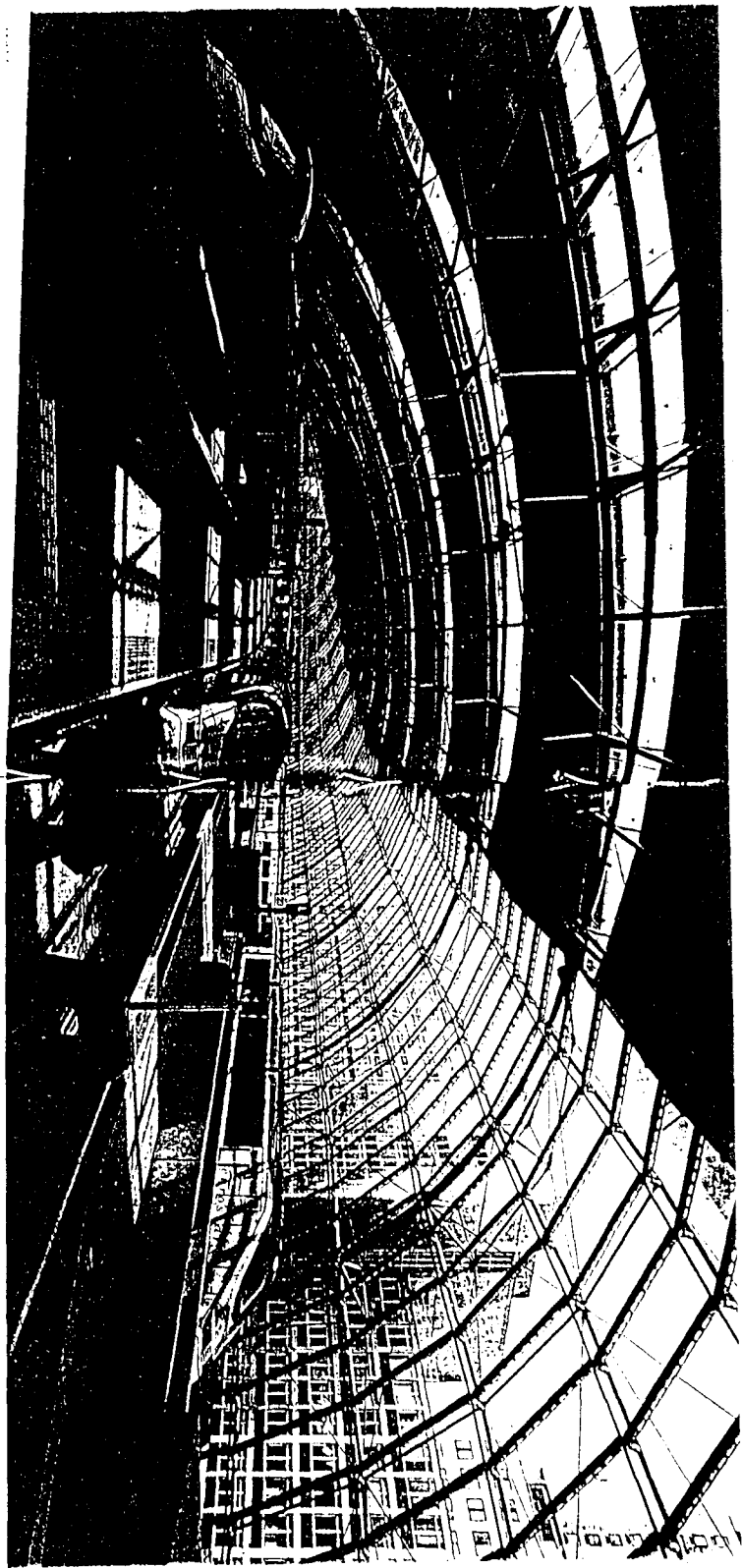
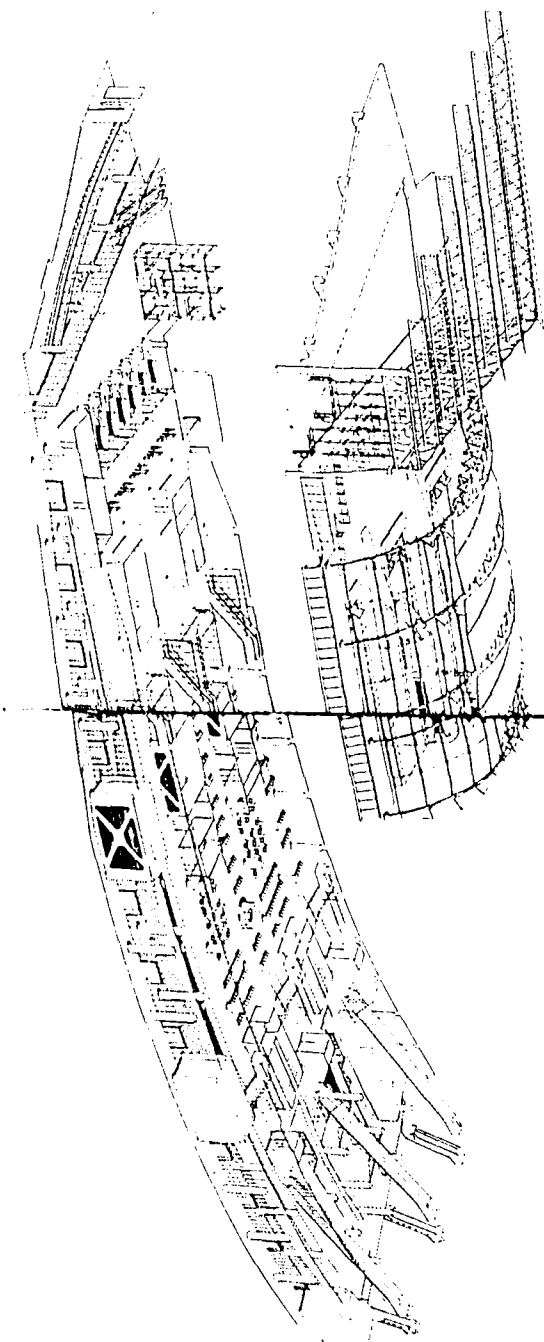
IMK

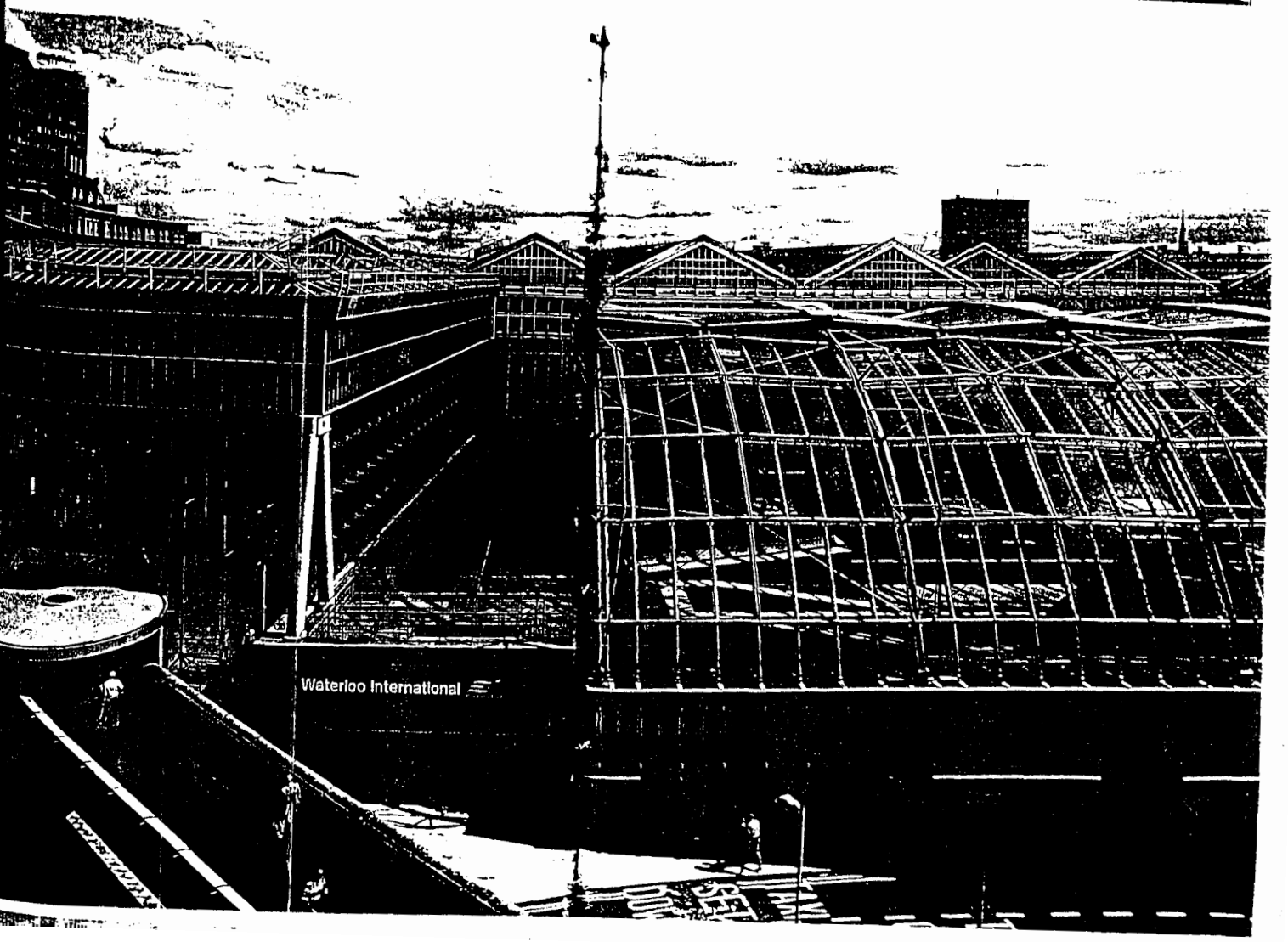
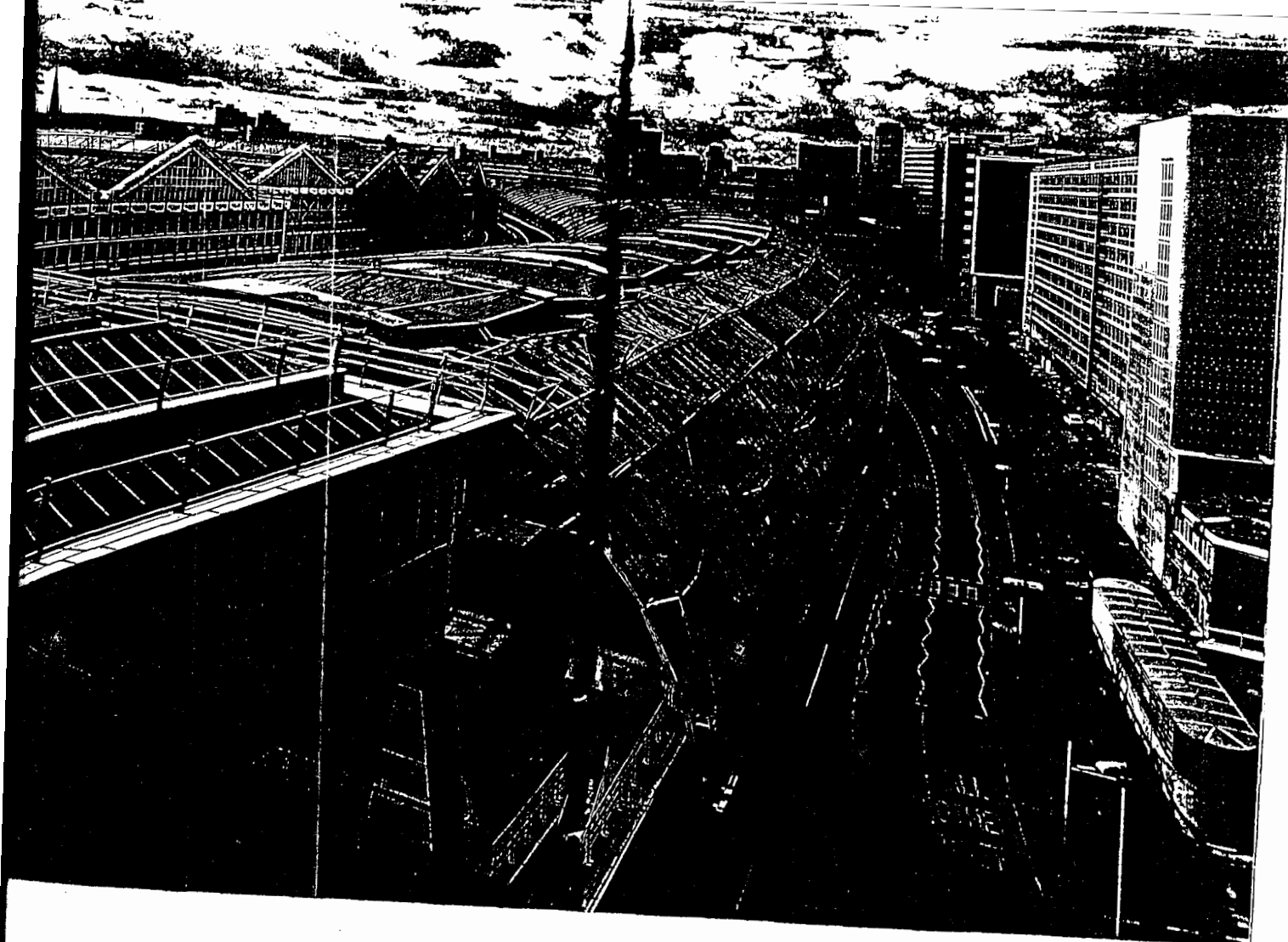
Waterloo International

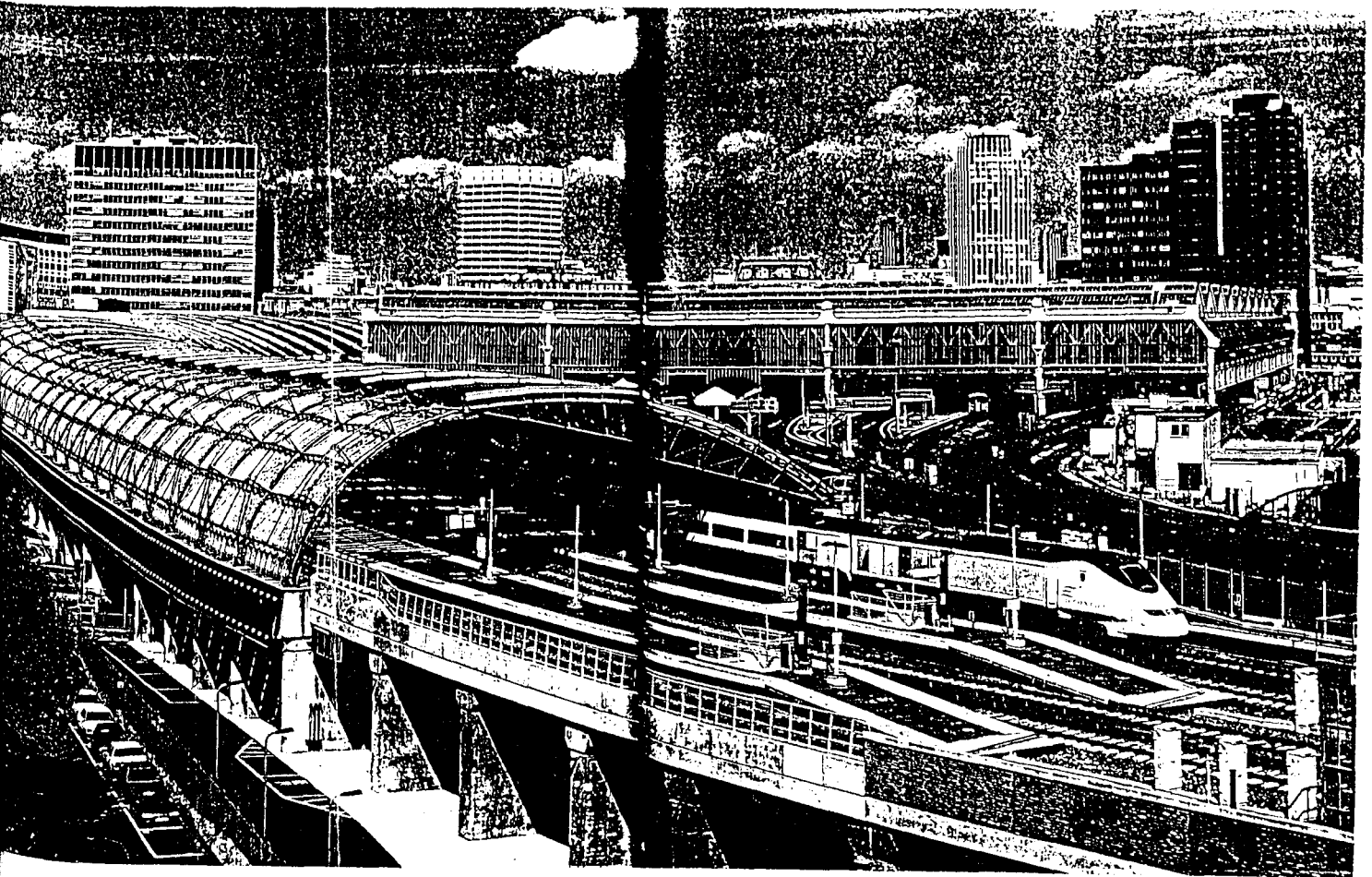
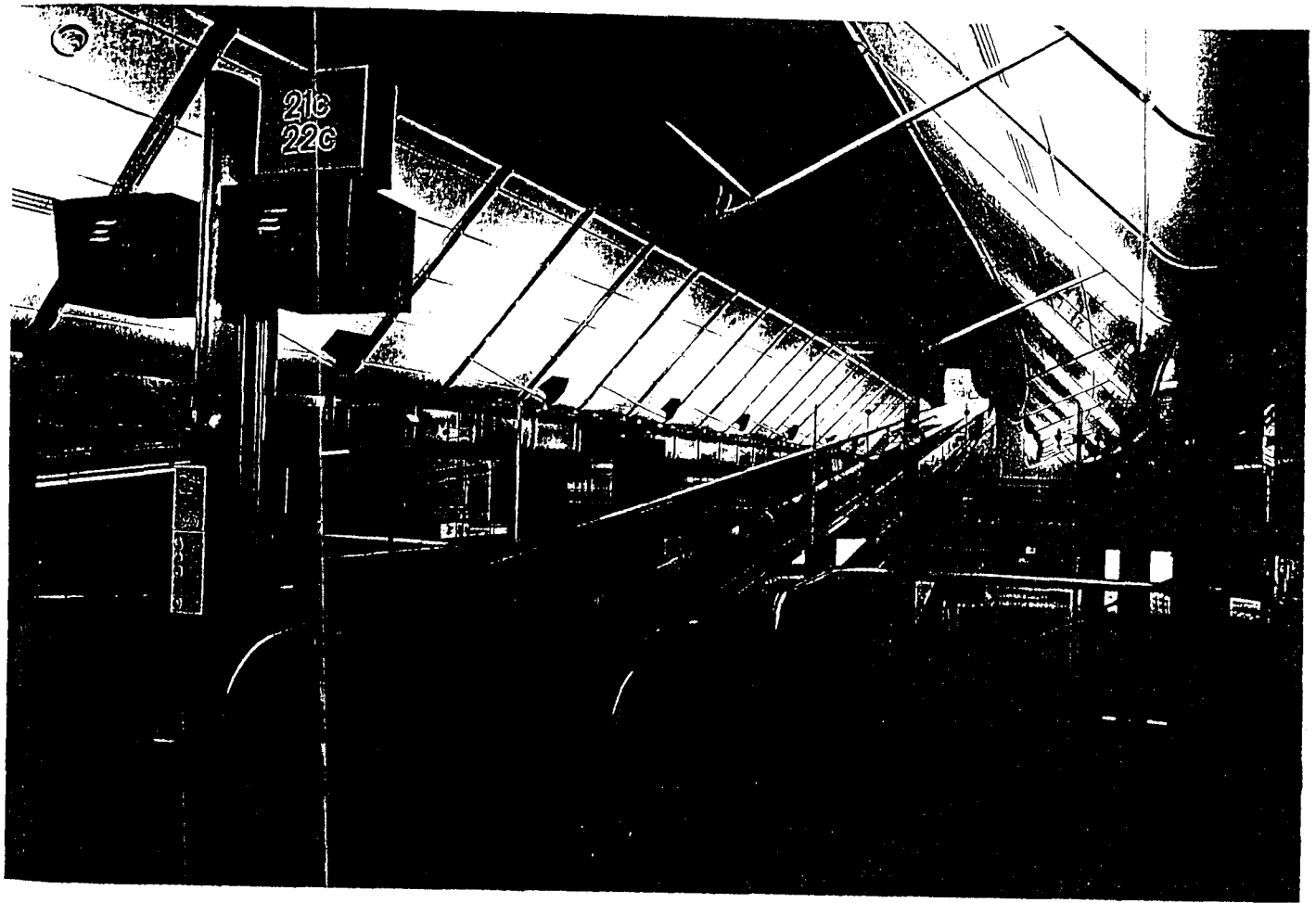


CONSTRUCTION METHOD
FUNCTIONAL RELIABILITY
MECHANICAL EFFICIENCY
QUALITY OF THE EXTERIOR QUALITY

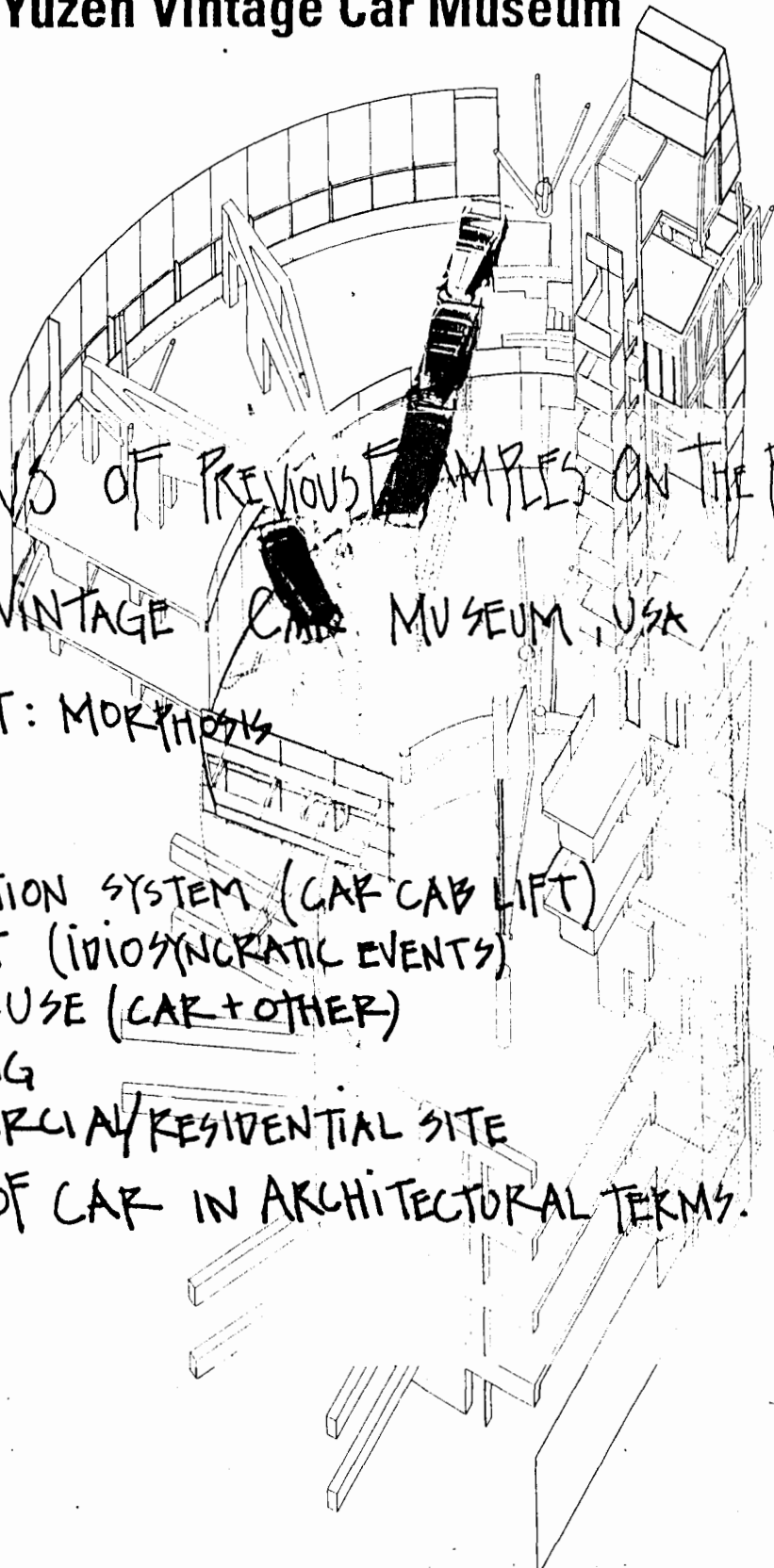








Yuzen Vintage Car Museum



Morphosis

Project: Yuzen Vintage Car Museum, West Hollywood, California.

Site: Along the commercially developed south side of Sunset Boulevard, the sloping site is bounded by two smaller residential streets on the east and west, and by adjoining property with two apartment buildings to the south.

Program: The mixed-use program has as its primary function a vintage car museum comprising about 30,000 square feet to house and display 60 cars. Other uses are a food and drink space, food establishments, and 100 housing units, a total of about 44,100 square feet, and 163,000 square feet of parking.

Solution: In addressing the commercial/residential duality of the site, the design has been developed with very different scales on the four sides. While the Sunset Boulevard face of the structure is dominated by the museum and commercial spaces and the penetrating elevator/sign tower, the gently sloping roof form pulls the scale down on the south residential edge, creating a mound-like vista for the housing beyond.

On another level, the design is meant to create "idiosyncratic events" through reaction to a set of systems including the city grid, a car circulation system, and a system of peripheral, edge-defining conditions. Primary pedestrian access is from Sunset Boulevard, where the visitor enters at the middle level of the museum. Levels are connected by a two-cab elevator; the lower cab serves to move passengers and/or cars from level to level, while the upper cab performs as a changeable display for cars. The cabs are connected by a 60-foot-high truss, the pair moving up and down with passenger activity to become a kinetic sign for the museum, and providing the means for the car on display to be changed at any time.

IMPLICATIONS OF PREVIOUS EXAMPLES ON THE PROJECT.

YUZEN VINTAGE CAR MUSEUM, USA

ARCHITECT: MORPHOSIS

CIRCULATION SYSTEM (CAR CAB LIFT)

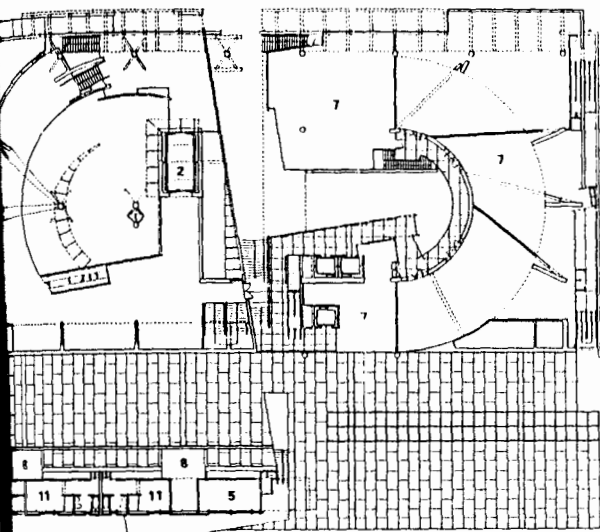
CONTEXT (IDIOSYNCRATIC EVENTS)

MIXED-USE (CAR + OTHER)

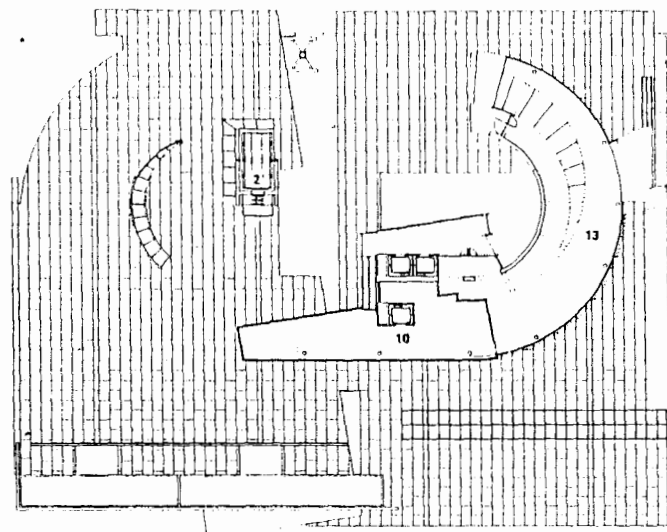
PARKING

COMMERCIAL/RESIDENTIAL SITE

VALUE OF CAR IN ARCHITECTURAL TERMS.

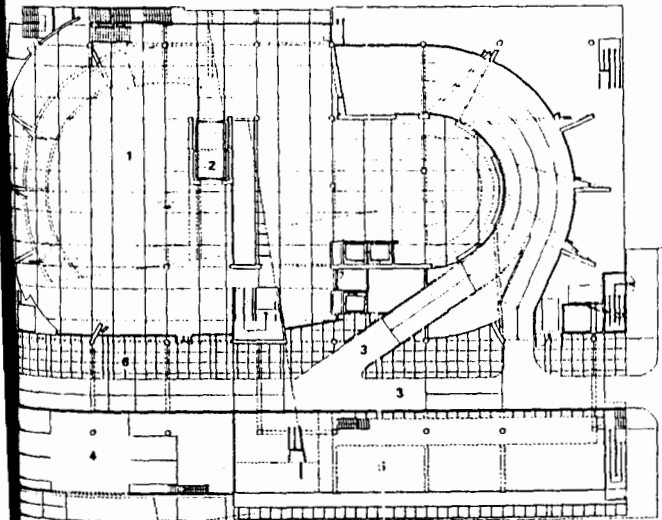


FLOOR PLAN

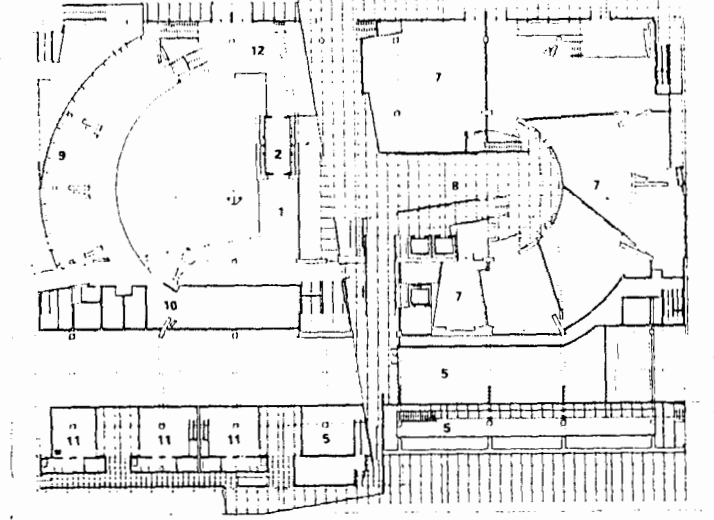


THIRD FLOOR PLAN

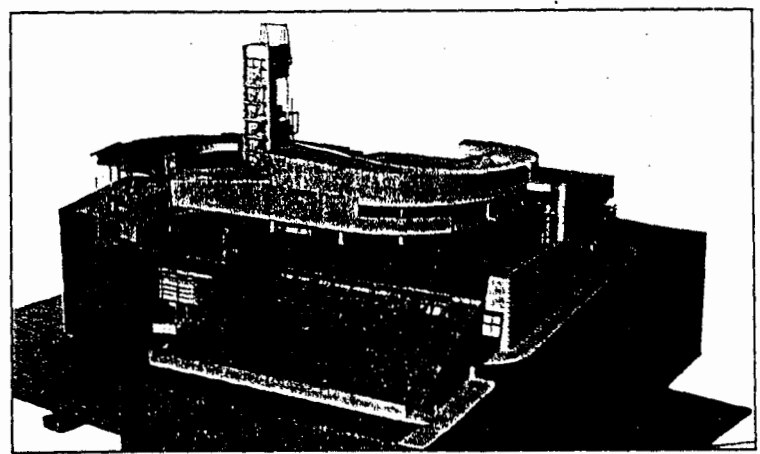
- 1 MUSEUM
- 2 AUTO ELEVATOR TOWER
- 3 DRIVEWAY
- 4 HOUSING PARKIN
- 5 OFFICE
- 6 LOADING
- 7 RETAIL
- 8 COURT
- 9 CAFE
- 10 KITCHEN
- 11 HOUSING
- 12 MUSEUM ENTRY/ RECEPTION
- 13 RESTAURANT



FLOOR PLAN



FIRST FLOOR PLAN



MODEL FROM THE SOUTHEAST

IMPLICIT

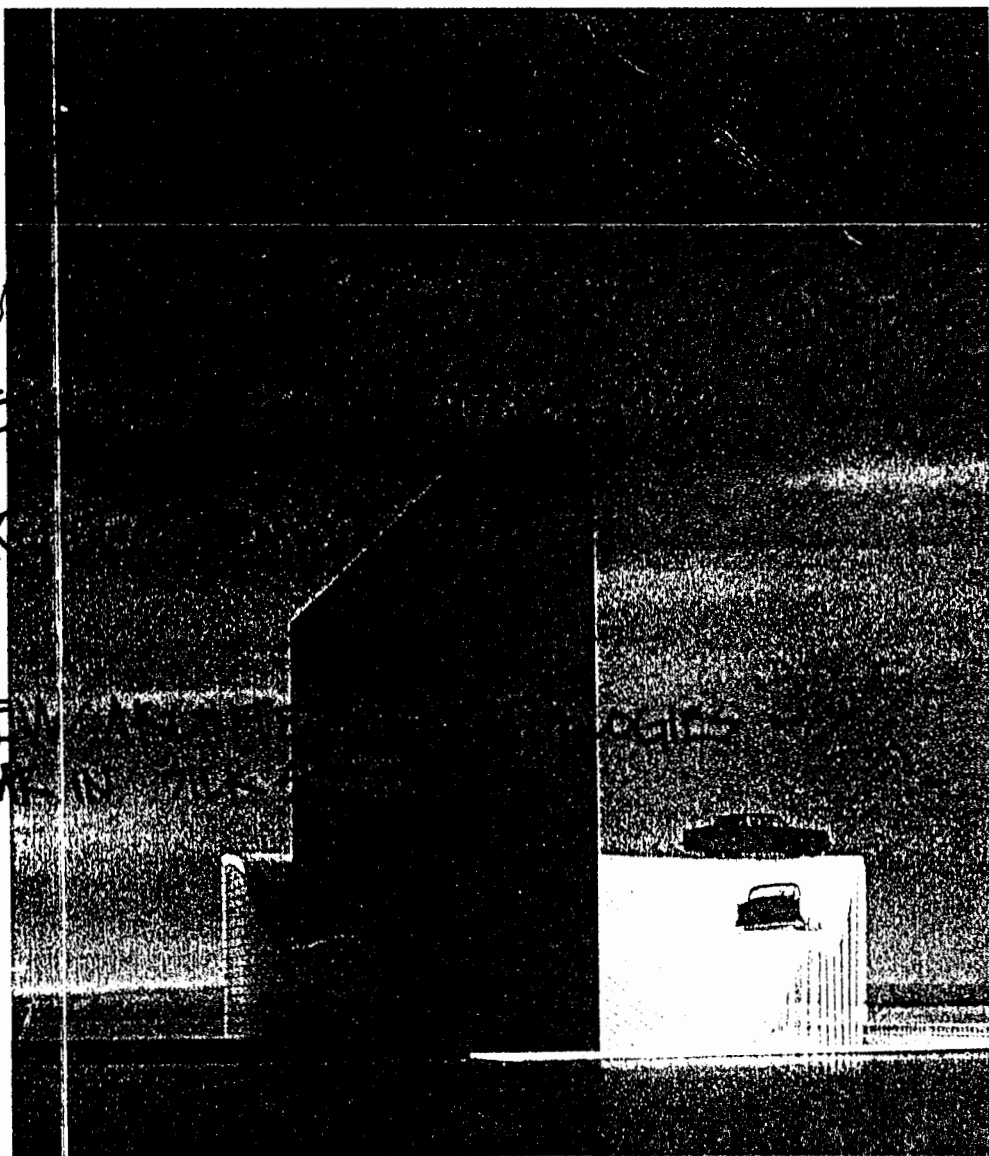
ME

AR

- NEW

- CREATIVE

JECT



Ambasz himself declares that his works do not fall into separate categories such as architecture, landscape architecture, product design, and sculpture, but on the contrary fall into all categories. This stance gives his message true originality and moving power.

As has already been pointed out, we are today in an age that offers many parallels to the Enlightenment of two hundred years ago. However, it should be added here that Ambasz rejects the kind of cultist stance that eighteenth-century architects were apt to assume. When Ambasz declares the need for rituals and ceremonies, he means it within the context of people's everyday actions. In that sense, he remains a humanist and populist.

Today, architects in our society must invent new programs. Contemporary architecture must not simply supply containers for conventional functions required of existing lifestyles. Ambasz appears to recognize that, on the contrary, new programs must be conceived if a new architecture is to be created. The conservatory in San Antonio is an excellent demonstration of the correctness of such an approach. Through the deeply inspirational architecture and environmental art that he has created, Ambasz continues to expand our own horizons.

S

I

THE

~~ANALYSIS~~

SIS

The site:

The site is situated in Beirut's fanciest zone, Ramlet-al-Bayda Avenue, using the horizontal stretch, that links north of Lebanon to its south, as the start/finish line, and taking advantage of the opposite seacoast as a nice view, along a French designed Cornish from the mandate period.

The nature of the buildings in that specific sector is tall, concrete buildings with big balconies directed to the sea, and all are labeled *superdeluxe*.

The choice of the site was based on the advice of a British professional track design company (ICC) which is represented in Lebanon by Dr. Khaled Altaki, the considerations were based on:

- 1- topography
- 2- FIA requirements
- 3- Scenery
- 4- TV broadcast condition i.e. the capacity of the TV's to catch the most of the circuit with a variety of environment along.

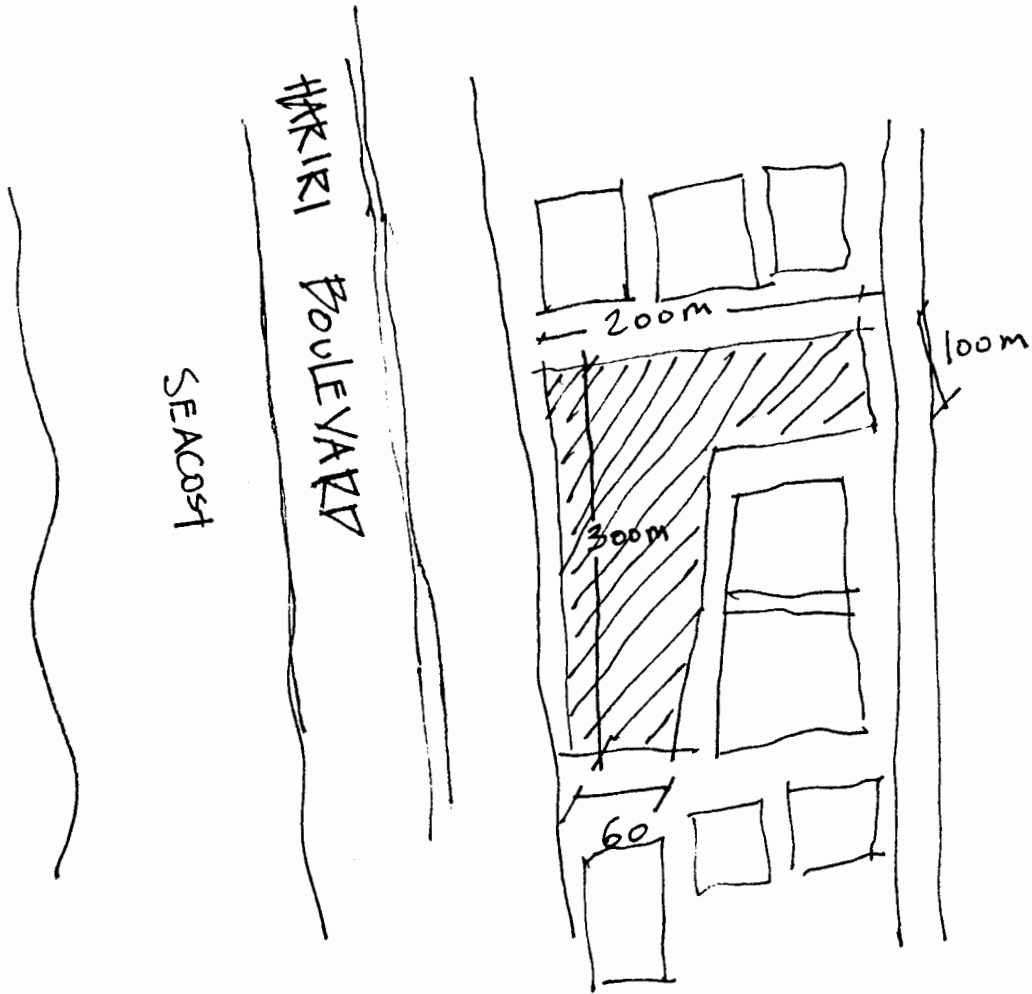
Adding more to that the facilities that the site is surrounded by:

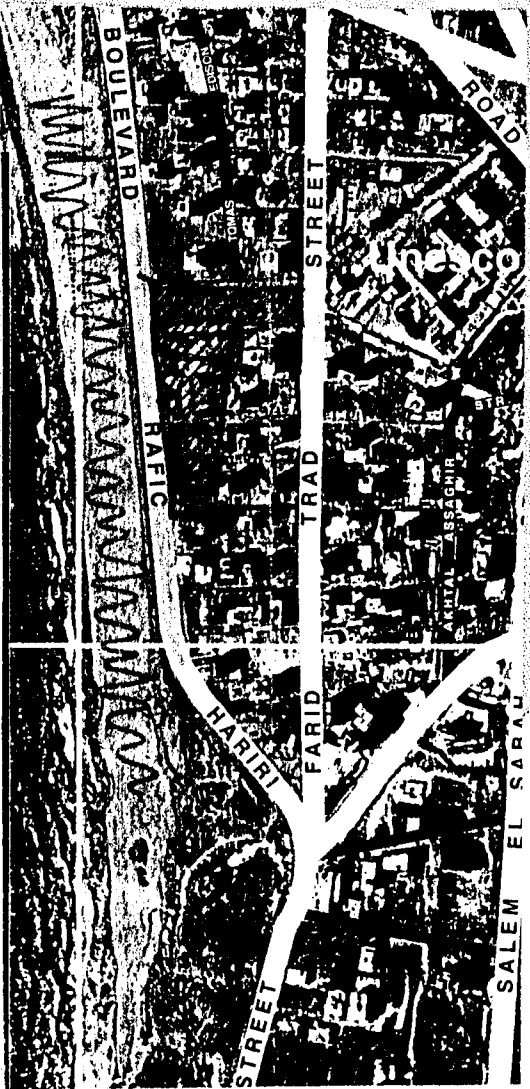
- Proximity to airport,
- Proximity to the sporting city and to the Malaab al baladi
- Hotels are available nearby
- Parking lots can be manageable.

Dimensions of site:

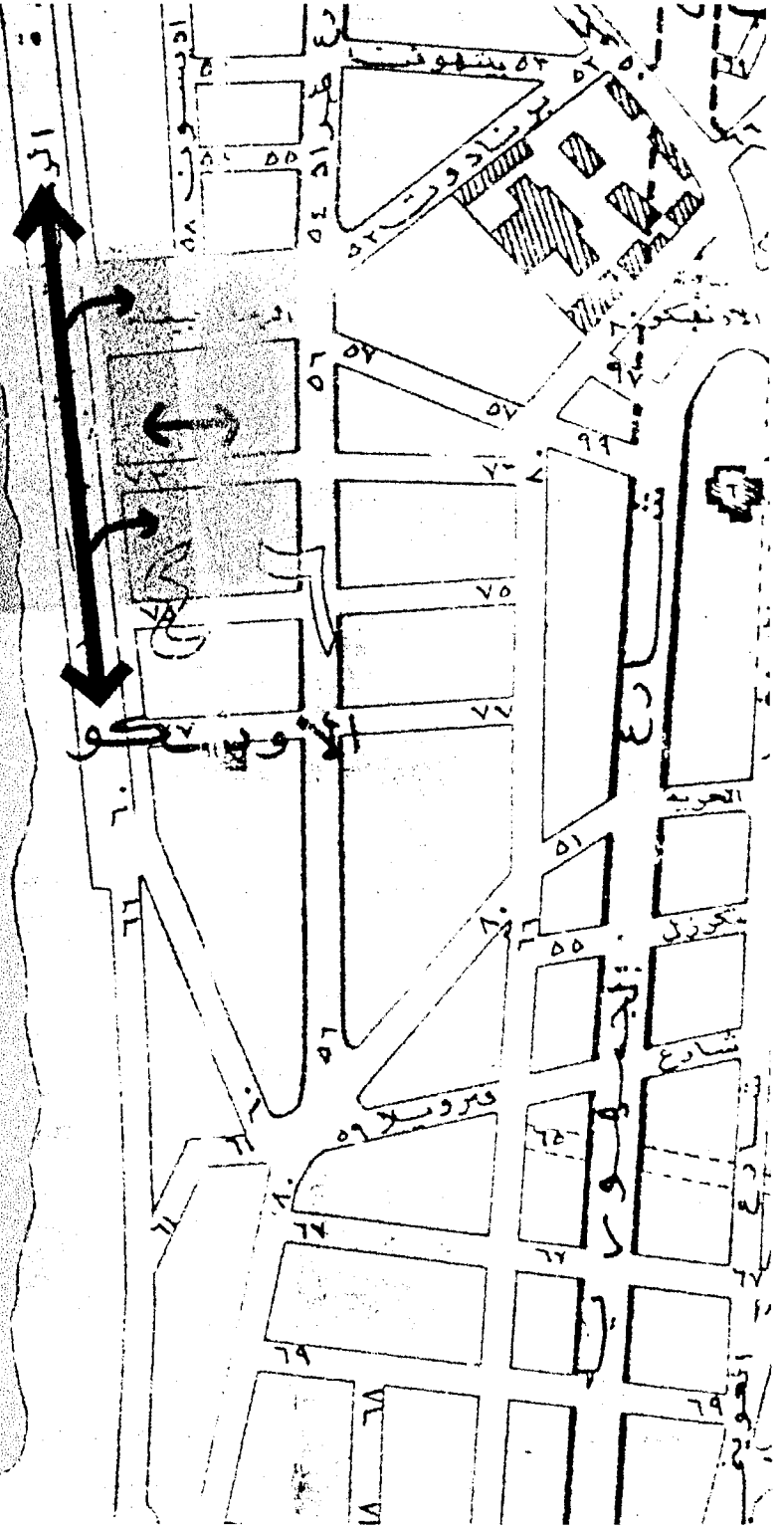
The site is L shaped sloping towards the sea at 4%. It is approximately 320m Long by 60m Wide from the narrow side going along 200m and

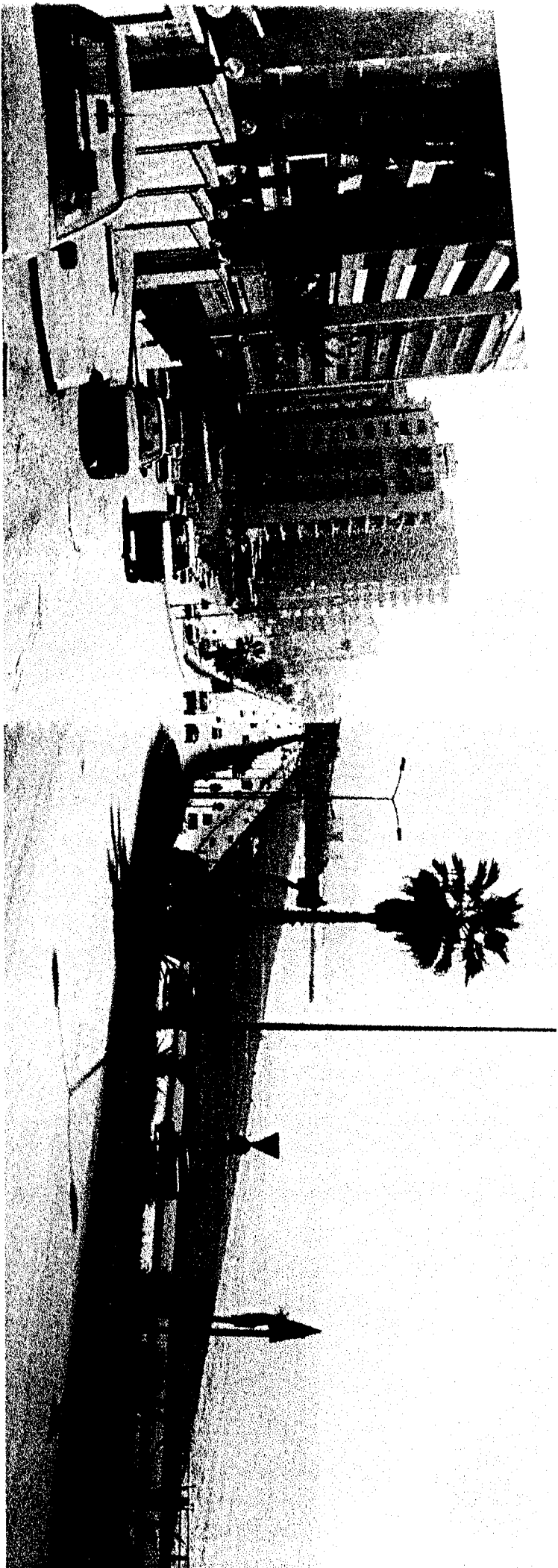
goes in 200m along 120m , thus resulting in approximately 35,000 msq.
50% surface exploitation.



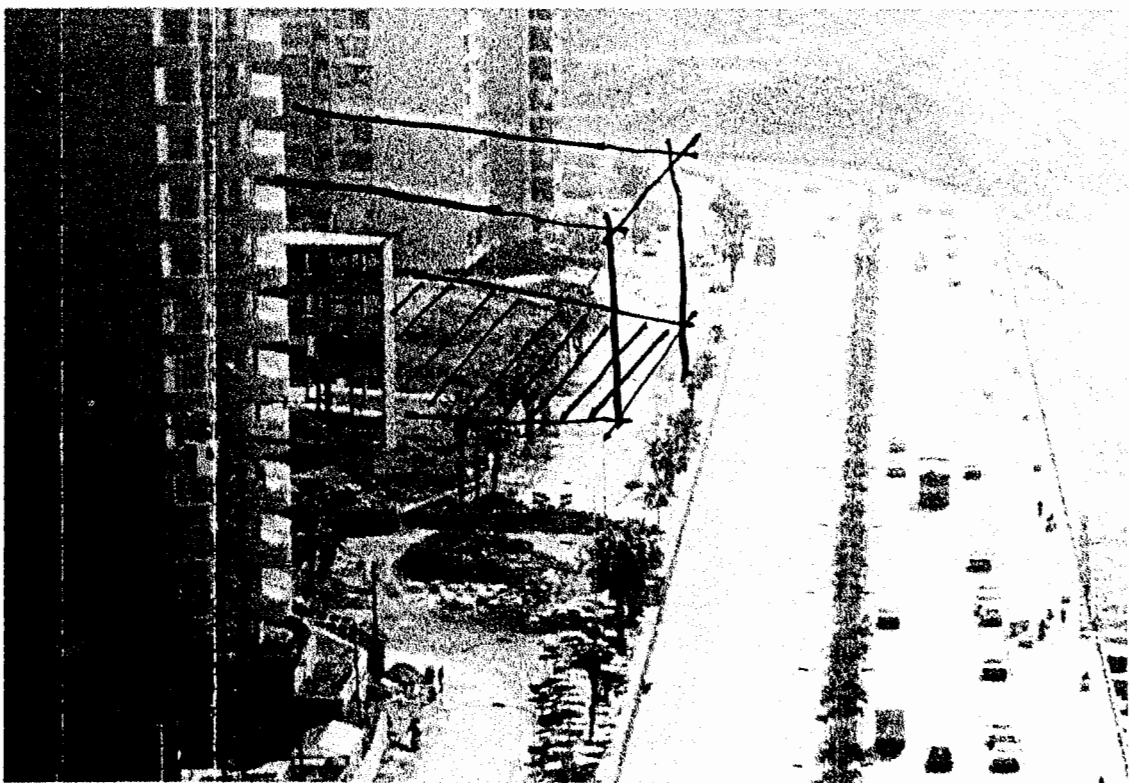
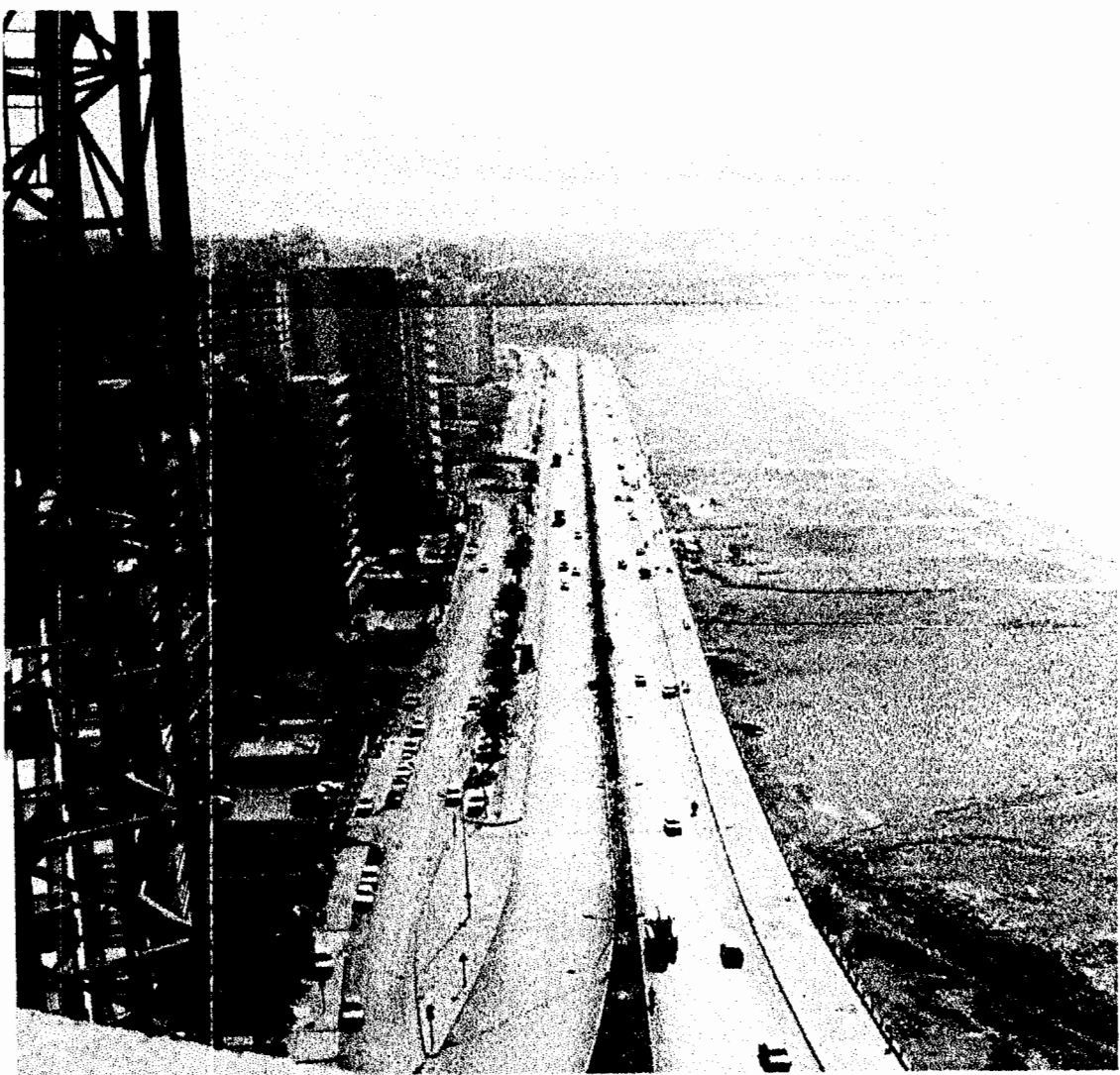


proposed site

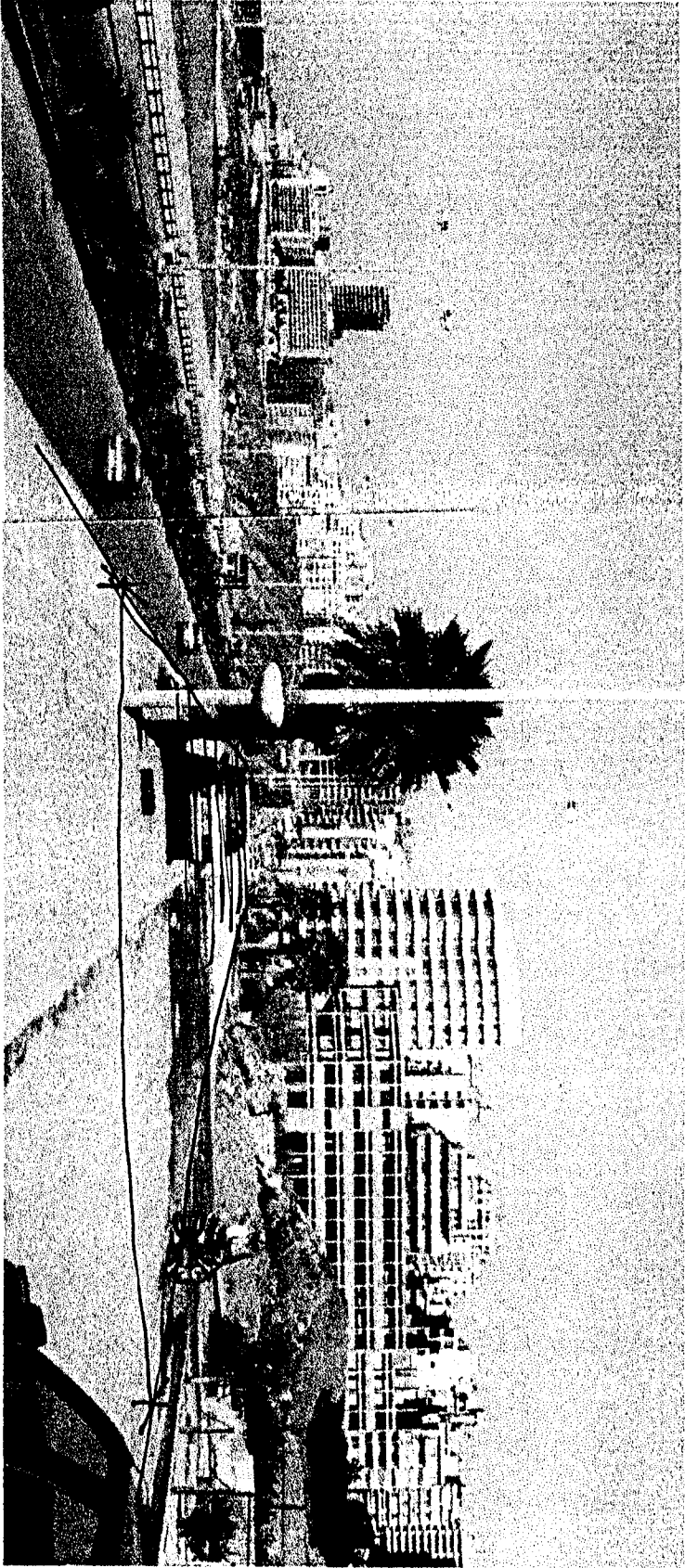




COMING TO THE BOULEVARD.
BLDGs - STREET - SEA.



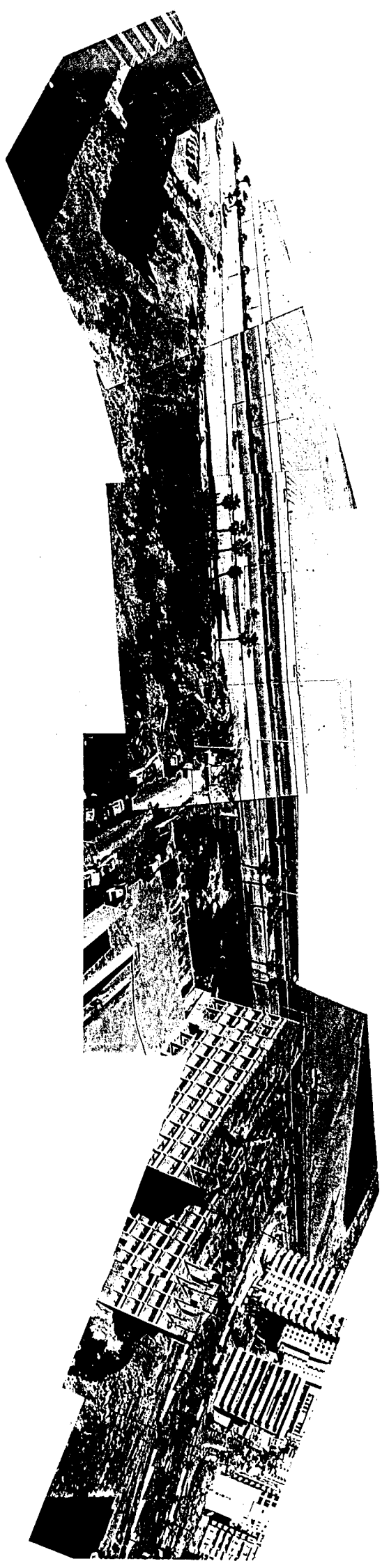
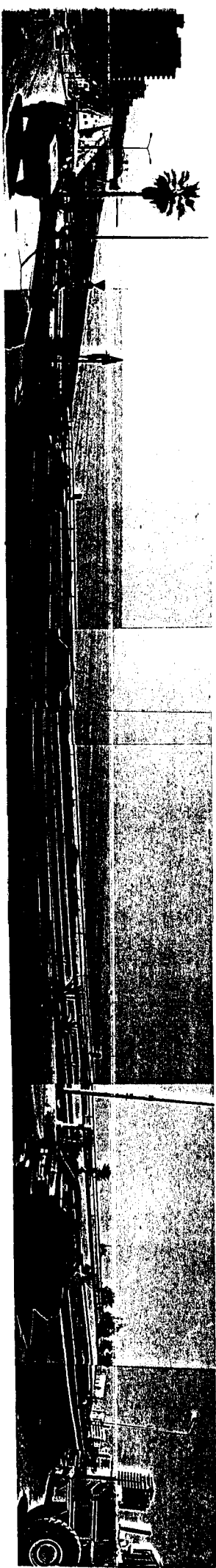
1- ALONG THE BOULEVARD
"START/ FINISH"
2. site



ITLANE.



- 1 - 'PITLANE' LOOKING IN CLOSE UP.
- 2 - LOOKING FROM 'STARTFINISH' TO 'PITLANE'

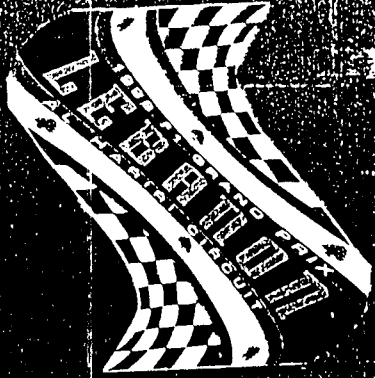




AL HARIRI BEIRUT CIRCUIT



MEDITERRANEAN SEA



TRACK INFORMATION	
LENGTH	6.7 Kilometers
WIDTH	11 Meters
H	Helicopter
+	Hospital

Track Designer: Dr. Khalid Alahm
Lays by M. Salloum
© Relay Co Beirut
Consultants: ITRI (UK) / ICC - UK

3 RERIE TOURISTE MAP

Project Name	Project Number
A. LA BELLE	01
LE SILLON	02
LES BARRIÈRES	03
LES BARRIÈRES	04
LES BARRIÈRES	05
LES BARRIÈRES	06
LES BARRIÈRES	07
LES BARRIÈRES	08
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LES BARRIÈRES	99
LES BARRIÈRES	100



PARKING SPACE

TRACK

SITE

ANIMATED

TRANSPORTATION PORTS.

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- F1 Racing; Magazine.
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