Preliminary

This section deals with enforcing the purpose of this study and setting the base for things to come. It is an introduction into the theme of the dissertation, the process of inquiry and the needs of a society.

“A work of architecture is always related to a specific situation, but it also has to transcend this situation and make it appear as part of a more comprehensive, meaningful totality.”

Norberg-Schulz (Meaning in Western Architecture. 1975: 432)

The purpose of exploration into the field of motor sport deals with the desire for that unachievable aspiration of many to compete against others at a level where the focus is on the relationship between themselves and their cars. To get to the chequered flag before anyone else, travelling at speeds of up to 300km/h, is part of man’s inbred desire to challenge himself and others.

The relationship between motor racing and architecture is an undefinable one on a purely physical scale. It delves much deeper than that considering those involved in motor racing: the drivers, administrators, mechanics and spectators are there for one reason only – the racing. The purpose of this exercise is to search for the continuity of architecturally enhancing the culture of the track so as to create an atmosphere that will not detract from the racing. The link is in the culture created by both the architecture and motor racing.
What is the meaning of architecture? Other peoples’ views and mine. Does architecture influence the way in which society thinks and acts? How does culture affect architecture and vice-versa? The purpose of exploring these questions is to fully understand how and why the contemporary situation is as it is.

According to Lynch (1990:104), in argument of the relationship between normative theory and aesthetic form, when people are pushed into a position regarding aesthetics, they either enforce the artist or the critic or hide behind “I know what I like.” That is precisely the point. Society knows what they like and dislike and varying opinions will never be able to formulate a position on the meaning of architecture.

Norberg-Schulz (Meaning in Western Architecture. 1975:428) reiterates Lynch in that by varying situations one implies different meanings to words, objects, processes etc. “… the meaning of any phenomenon is the context in which it appears”. Charles Jencks does not relate context to the phenomenon, but emphasises the context in a more general tone “… each use of meaning is different from any other and the particular case has to be understood from the context” (Semiology and Architecture. Meaning in Architecture. 1969:13).

Architecture’s main objective is a symbolic one. It can be created to symbolise its desired function or appear to be something else (Baker – Design Strategies in Architecture 1996:XV11). Baker also goes on to say that architecture also represents the most important characteristics of a culture in that it brings into existence the framework for national life (1996:XVII) and, according to Lawrence Durrell in “Meaning in Western Architecture” (Norberg-Schulz 1975:432), a very important determining factor in creating the spirit of place, is culture. The aspect of culture gets more emphasis from Baker when it forms one of his three key aspects that influence architecture. The others being: site conditions and functional requirements (1996:XV11). These three points by Baker link now again to Norberg-Schulz, the context in which any phenomenon appear, determines its meaning.

Colin St. John Wilson (architectural critic), in an article in The Architectural Review, The Play of Use and The Use of Play. (July 1986), also mentions culture. “The limits of an architecture are the limits of the culture that it serves” (1986:18). Throughout the article there are also various references to architecture existing only out of a need, particularly to fulfill the needs in society (1986:18). It is the “transformation of utility into an icon” where this process is likened to a question and answer scenario where the source of the question is use and architecture is the fact of a way of life (1986:17).

What is culture then? Norberg-Schulz (Meaning in Architecture. Meaning in Architecture.1969:220) defines culture as a common order which is developed through education and the constant retrieval of information reliant on “common symbol systems”. Culture makes use of distinctive characters in the “ordered” world through valid interactions.

What can be said then from the variety of views presented above? Culture definitely plays a very important role in architecture, in determining the architecture and providing function and aesthetics to suit that specific culture. To mention Norberg-Schulz again, we must bear in mind though that every situation, every site and every response to the problem will differ in different situations.

Culture is very symbolic. Although the meaning derived by the individual, the community or society as a whole will vary from time and place, meaning is still created. Presence and the Genius Loci (Spirit of Place) are presented as part of the symbolic meaning, how it makes us feel and what the architecture represents.

Aesthetic and function are linked to all aspects of culture and symbolism. The function could be determined by the form, but most times this form is created by the function. Ensuring the balance of aesthetic and function to the symbol and culture of society (you, me, us, the community) is of extreme importance, the failure of which will have consequences that will affect not only the designer, but the community as well.
The need for there to be architecture that fulfills cultural, symbolic, aesthetic and practical function is probably the first step in creating a place. Without the need for there to be an element/phenomenon, there is no architecture. As architecture is now defined by the need for a structure that serves on a multitude of levels, if there is no need, there is no architecture.

Motor racing – emotions and power on tap

“The art of being totally at one. Not only with the car, the track, your competitors… but with the race itself. Being in touch with the race as it unfolds… how it began, where it is now, and what is likely to happen in the laps ahead. It is the art of planning. Yet also, being able to react instantly to a changing scenario. It is being so on the top of your game that you are able to understand the choices open to you. It is about managing any of your own weaknesses and maximising your opportunities when they arise.”

Woodcraft advert (Winning!2003/2004:63)

Motor racing in South Africa, and all over the world, is a culture on its own. If you have the privilege of being born into a racing family or have the opportunity (be it financially or with natural ability) of getting involved in motor racing, you are fortunate enough to be involved in an emotional culture that provides for high speed, adrenaline pumping thrills, and spills, that can be found in no other sport and one that is steeped in so much history, it is difficult to know where to begin.

“From the moment the first fl eeting ‘horseless carriages’ spluttered into life around the turn of the century, there have always been some ambitious, enterprising and enthusiastic individuals whose overwhelming ambition was to drive faster – and for longer – than any of their rivals”

Henry (1984:4)

As a spectator, which so many of us are, we can only get a taste of this culture and it is with an inner ambition within the majority of the human race (no pun intended) that motor racing, especially in South Africa, where we are not exposed to a high enough volume of live racing, draws tens of thousands of would-be racers to the circuits. Can you imagine what it is like to be driving a Ford or Chev V8 GT1 that produces 600 hp on the throttle, when just by standing next to them when they are idling is enough to make shivers run up and down your spine and make your skin crawl? As Murray Walker (well known motorsport TV personality) puts it, “motor racing is an action packed and thrilling sport with enormous visual appeal” (Foreword in the Sportstoppers Guide – Motor Racing 1984:3).

Motor sport is about passion, skill and the desire to win - to be the best. Sam Tingle, a driver from the early years of the South African racing scene, writes in his foreword to the book “For the love of it – John Love and an Era of South African Motor Sport”, that when the flag dropped for the start of a race, everyone wanted to win (2005:15).

It does not matter if it is in the most illegal street race or the juniors on the karting track or Formula One. Everyone wants to win. Motor racing is culture, it is passion, it is desire, it is history and, like with all sports, it brings people together with one thing in mind - it is about the racing and nothing else. It is not political and it does not discriminate.
Speed


Kas Oosterhuis: Principal ONL, Professor at the Faculty of Architecture TU Delft

"Speed and Friction"

Writing these lines in the Thalys Train of Grande Vitesse with a speed of nearly 300 km/h I notice that my perception of the world changes with the increasing speed. I feel a different relation between myself, the bullet train and the landscape. It feels like riding extra long waves, navigating a spline curve trajectory, slowly bending up and down the spline, delicately bending the spline sideways right and left. Stitching the sleepy hills of the landscape into an even sleeper sequence of cuddling treatment of the transported human body. Riding the French landscape at high speed feels like a different friction: connected to a new meta-landscape, flying low somewhere between earth and clouds, it kind of feels like being lifted off the tracks.

The Formula 1 driver reaches similar speeds on much narrower tracks and sharper curves than the TGV trajectory. The river accelerates to the speed of the bullet train, in an environment which seems more suited for slow traffic like bicycles. It features similar curves as the winding lanes in public parks, designed for strolling down the lanes at a quiet pace. Speed, curves and hence friction boosted simultaneously, applying G forces to the tossed around driver. Seeing a video of the Formula 1 driver you feel sorry for the guy and admiration at the same time for this heroic behaviour in his narrow torture chamber, challenging the sharp curves, scratching the asphalt, excited about the bold friction his body is going through when navigating the circuit. Now imagine yourself to be the skin of the rubber tire. You feel the friction. You feel the heat. Your rubber skin is scratched by the asphalt due to the speed of the rotation and the power of the traction. Your endurance will be tested while you are rotating with over 40 rotations per second. You leave rubber traces on the asphalt. You inscribe the track. The track, the power of the machine, and the tires all belong to one system. There would not have been asphalt if there were no tires. There would not have been powerful machines if there were no asphalt tracks. Tires, race-car and track belong to one system. If the tires are hot, so are the inscriptions on the track. Tire and track exchange information in the form of heat and rubber. Speed and friction belong to one system. There is no speed without friction. There is no speed of information without the channels, hubs and wires to regulate the speed of the information flow. There is no heat without materials to transfer the heat to other stuff. There is no traffic flow without tracks, cars drivers and a set of rules operating on the players of the automotive mobility system.

People in speed

How is speed experienced by an individual person? Imagine yourself walking the streets. You lift your feet one after the other, but you never lose touch with the ground. Now, speed up, and you will find yourself flying during the intervals of your feet touching the ground. You are in another mode of relating to the fixed ground. You are in speed. You see the environment differently, your vision gets blurred, you concentrate more on the process of running than on the environment. Take this to the extreme, and the person in extreme speed delaminates from the speed of daily life. A person in speed is very aware of its own body, (s)he lives in a world of imagination, and eventually loses touch with the immediate environment, (s)he is creating an increasingly isolated situation, only communicating through narrow information bands. People in speed let only limited information into their bodily system. If you on the contrary are slowing down your pace, and you sit (and read the paper or watch TV) you are not aware of your body at all, and the media are taking over the control over your body. You let the information stream freely without much friction into your system.
Vehicles (operated by people) in speed

What if that person takes place behind the steering wheel of a vehicle? Then the vehicle acts as the body – including the driving person, who basically functions as an operator – and takes the body in speed to another extreme. Vehicles in speed lose direct contact with the environment and need instruments and sensing devices to measure and control circumstances as they rapidly change. Vehicles in speed thus develop a specific form of information exchange with the environment. The vehicle body builds up a special relation to the asphalt (in the case of a race car), it wants to leave ground but when speeding up it starts building up a field of attraction. The Formula 1 car is pulled back to the asphalt through downforce created by the speed of the car and builds up a force field between the bottom of the car and the track. Why is the bottom of the traditional car always black like burnt coal, and not designed like the rest of the body? Why does it look like a beetle with colourful wings on the back but with black and flat ugly and dirty bottom? Is it black because of the friction between body and earth? Is it black because we are not really going to see it and our eyes do not need visual pampering? Thinking about the dynamic relation between car body and the road one can not treat the bottom as a flat rugged surface; the bottom must be prepared to perform the special relationship.
As the underlying nature of this dissertation is to create a precedent for future projects of this nature, a question arises: In the creation of a precedent I had to ask myself, is it a style that will prevail or is it a vernacular?

With the setting being around a race track, where the culture is that of the car, the driver and the spectator, is it correct to egocentrically idealise a new style? Is it then possible to force a specific style within this context? When it comes down to it, the driver does not really care about what the architecture looks like trackside – especially travelling at speeds of up to 300km/h, and the feeling of the spectator is the same – they are there to watch the battle unfold on the circuit. It is about the driving style and the architecture of the car.

In saying that, it is the responsibility of the architect to ensure a pleasurable experience for all involved through the enhancement of the “natural” setting.

“...architecture is having to respond to the context and culture of a place, and where architects are having to work increasingly within local vernaculars.”


The article “Escape From Style” is Thomas Fisher’s contribution to the architectural profession in response to the growing confusion among architects with regard to style. Having been written in 1994, the article is a bit outdated, considering its subject matter, but the principles should remain unchanged, especially with relevance to the current South African context.

The theme moves around the principle of creating a vernacular that will suit the context of the environment wherein it is placed – not a style that gets imposed on the specific site and time out of context.

“...vernaculars are local and contextual, not international and universal”


With this in mind then, it is not a question of style, it is a statement to the motoracing vernacular, the language and the culture within the high speed context that the project will unfold.

evolution of place making

In response of the growing need for recognition to the environment as a whole, designers are constantly having to adjust their methods and practices with regard to the social and historical value of the context wherein they are placed. As a process, our attention must be drawn to an approach that is inclusive of all the fundamental aspects of a modern day evolution of modern space.

Broadbent (Design in Architecture.1977:387) refers to a method of architectural design as a coming together of three systems, namely, the human system, the environmental system and the building system. Trancik (Finding Lost Space.1986:97) also has a method, but defines it as three theories of urban spatial design: the figure ground theory, the linkage theory and the place theory.

The figure ground theory (building system) is an exploration of the relationship between the land coverage of buildings as a solid mass and the open voids that surround them with the objective of making clear the hierarchy of spaces of different sizes in the environment and the connection between them (Trancik.1986:97).

As the linkage theory (environmental system) suggests, it is a process of determining the value of connection between elements. The goal is to create a structure for ordering space through the network that is created by the various linkages in the assessment. The emphasis, with this method, is on movement systems, circulation and the efficiency of the infrastructure (Trancik.1986:97).
By incorporating the human factor, cultural, historical and natural contexts into the equation, one applies the place theory (human system). It is a response to context that aims to enhance the relationship between the existing conditions and the contemporary proposal through the inclusion of factors such as history and time. "...social and cultural values, visual perceptions, of users and an individual's control over the immediate public environment..." (Trancik, 1986:38). In his book "Genius Loci", Norberg-Schulz devotes his entire exploration to the "spirit of place". The definition of place is a space where life exists, where space has a unique character and feeling and the goal of the architect should be to make meaningful places, to make the genius loci visible and to help man dwell (1980:5).

It goes without saying then, that the importance of applying each of these theories, or systems, is crucial in the creation of a modern space. Not in isolation, but together, as they serve each other on more than just a philosophical level.

real world problem _on a national scale

“The organisation of South African sport is set to undergo major restructuring aimed at streamlining responsibilities of stake-holders and improving the potential for success in high performance sport.”


Since the inception of the New South Africa, sport in our country has begun to excel to a level where we, as a nation, can compete without shame in the international arena. Prime examples of this is our country's participation in Cricket, Rugby, Athletics and even Swimming where our sports men and women make us proud and bring home medals on a regular basis. This is mostly thanks to Government and non-governmental organisations (NGOs) whose desire it is to see South African Sports at the forefront of the international competition.

One government department, Sports and Recreation South Africa (SRSA), is of particular mention in the progression and development of South African athletes in all fields. Their mission is to realise government's goals through the "optimalisation of sport and recreation delivery" with participation of the public, private and non-governmental areas of society. The objectives that they set to attain these goals are as follows:

• Increasing the levels of participation in sport and recreation activities.
• Raising sports profiles in the face of conflicting priorities.
• Maximizing the probability of success in major events.
• Placing sport in the forefront of efforts to reduce the levels of crime.

(Mission Statement. SRSA. www.srsa.gov.za)

The creation of a new two level system, including a government department and a non-governmental confederation, is the result of findings by a Ministerial Task Team that was appointed in December 2000 with the aim of determining the impact of high performance sport on general sporting codes. The Minister of Sport and Recreation at the time, Nqonde Balfour, said in a press release (Restructuring of SA Sport. 15 July 2003. www.srsa.gov.za) that the plan is now finalised and will lead South African sport into the future.

Part of this resurgence to be competitive internationally in high performance sports must also include motor racing. Since the first ever Grand Prix in South Africa in 1934 (Winning, 2004:122), motor racing has experienced a highly successful era on the local scene as well as internationally with a total of 18 South African drivers competing in the F1 World Championship up to and including 1980 (Winning, 2004:147). The most famous being of course, Jody Scheckter, the only South African to ever win a Formula One world championship, this occurred in 1979.
Since the last Grand Prix in South Africa in 1985, and then again for a brief two-year stint in 1992 and 1993, the prospect of South Africa competing on the international Formula One circuit has gone in a downward spiral (Winning 2004:216). More recently, though, the interest and welfare of motor racing has been looked at a little closer and the inclusion of a South African team, backed by local businessman Tokyo Sexwale, in the A1 GP World Cup of Motorsport is definitely giving South Africa a fighting chance.

Kyalami Grand Prix Circuit, once an icon on the international racing circuit, now just a shadow of its former glory with a dilapidating pit complex and overgrown gravel traps makes even the toughest and most competitive racing driver wonder what went wrong with the track and its support structure. Crowd numbers that began to deteriorate at local racing events only made the situation worse, as it is the people who come to watch the racing that actually pay the bills; and sponsors start losing interest.

With the sale of Kyalami to a consortium in mid 2004 and renewed interest in the strengthening of the national racing calendar (with more local racing events being given the nod by the governing body and an increase in exposure), the prospect for the future of Kyalami is certainly looking up. It will also take some help from the government though as the ability to hold a Formula One race takes a huge amount of capital. There is some hope with the general feel of many people in the motoring industry that the future of Kyalami as a valued asset to the motoring world is undeniable. Mario Lupini, writer and technical editor for Cars in Action magazine, writes in his article "Where to now?" that a "Metropolis such as Gauteng cannot survive without a track like Kyalami" (May 2005:113).
To develop a complex that will enhance and be symbolic of what motor racing ultimately represents, is the desired effect. Specific based outcomes will be set and will be used as the design requirements. The results must show an exploration into the culture that is motor sport and the combination of aesthetic and function.

This ideal will be more formalised in the section that follows, but originates from two basic points of departure which summarise the approach to the study:

- Setting of goals that can be worked towards
- Creation of a set of guidelines that will assist in achieving a desired result.

THE PROJECT DEFINED

challenge

The provision of a core institution that can ensure the future profitability of South African Motorsport through the continuing support of the government and the public, addressing promotion and development as its main cause with a resurgence of Kyalami Grand Prix Circuit to its former glory.

client profile

The variety of aspects dealt with in the problem lead to circumstances that must provide for the necessary involvement by all concerned parties. These institutions all contribute most assuredly to the prospect of motor sport in South Africa becoming a major player in the high-performance sporting field among such opponents as rugby and soccer.

msa

Motorsport South Africa (MSA) is the controlling body of all motor racing aspects (from karting to Moto X) in South Africa. They are an autonomous organisation (Beaulah Schoeman – foreword in Winning. 2003/2004:3) that has international accreditation by Federation Internationale de l’Automobile (FIA) and Federation Internationale de Motocyclisme (FIM). Both the FIA and the FIM recognize only one National Federation in each country and as such, have transferred their sporting powers to MSA on condition that all motor sporting events are organised and held in accordance with the International sporting codes of both governing bodies (www.msa.co.za).

srsa

Sports and Recreation South Africa (SRSA) is the government department that deals with all sporting aspects and is headed up by the Minister of Sport. With their vision of ensuring the adequate delivery of sport and recreation to the nation of South Africa (www.srsa.gov.za), it seems only fitting that they get involved in a project of this nature. It also provides government backing in a process that would otherwise be futile and also reaffirms the role that government plays in developing the future of South African high-performance sport.

“But perhaps the most important of all is the rate of sport in fostering national unity.”

(White paper on Sport and Recreation.2003:3)

The SRSA believes that, although the approach to sport and recreation must be based on local values and beliefs, the national policy on sport and recreation must respond to the influences on a global scale (White paper on Sport and Recreation.2003:2).
Pole Position Promotions is the leading motorsport management and sponsorship procurement company in South Africa (www.poleposition.co.za).

Pole Position Promotions is a promotions based company that organise and manage all of South Africa’s motorsport events under the auspices of MSA (Judy Maharaj, Personal Interview). They deal with the acquisition and management of all sponsorships and are instrumental in maximising the full potential of all opportunities based around motorsport events.

Headed up by a local racing legend, Dave McGregor, the company describe themselves as passionate, with staff experience in the promotions industry of thirty years, and run an event from the initial stages of planning right through to the last chequered flag. They have organised a variety of large scale projects including the South African Formula One Grand Prix and are instrumental in the organisation and management of the Vodacom Power Tour (www.poleposition.co.za).

Part of their core business is the promotion and development of motorsport in South Africa. This department is run by Gugulethu Zulu (www.motorsport.co.za), who is also a graduate of the Isondo Racing Academy, and is a key role player in the Isondo 2000 Development Academy (Winning, 2003/2004: 196). The biggest hurdle in development of the youth is obtaining the financial backing to further the education and enhance their skills. Sponsors play a crucial role in this aspect as they can decide the future of the participants in the development programmes (Gugulethu Zulu, Personal Interview, 25 April 2005).

As a result of the initiation of Gugu, and his experience in the motorsport development programme, the future of motorsport development is taking a turn for the best. Pole Position Promotions has just recently received a grant from the Lotto Board to further the development process and if 2005 is successful, further funding will be available (Gugulethu Zulu, Personal Interview, 25 April 2005).

With the sale of AA Kyalami in 2004 to a consortium comprising of MJF associates, Imperial Bank and Imperial Motor Holdings (Kyalami sale revs up Motorsport, 13 July 2004, www.imperialbank.co.za), the emphasis on preserving Kyalami as the “spiritual home of SA Motorsport” has been recognized (www.formulalibre.co.za). Kyalami has been the institution of motor racing in South Africa for over four decades (Kyalami back on Track, Parks and Ground, January 1992:49) and it is with such a deep heritage in the motor racing field that the promotion and survival of the circuit is explored and utilized.

Kyalami Grand Prix Circuit is currently run and managed by MJF associates, whose intention is to retain Kyalami as a “motor sport icon” (Kyalami sale a green flag for Motorsport, www.joburg.org.za, 26 July 2004). The team works under the banner of Kyalami Motortainment (Kyalami Grand Prix Circuit’s own in-house promotional team) whose purpose is to not only promote motor racing, but also to promote Kyalami as a multi-functional facility (Judy Maharaj, Personal interview, 18 March 2005).
To preserve the heritage and culture of motor racing in South Africa for the future generations, a few important criteria must be acknowledged. With the clients in mind, and their variety of needs, a proposal of requirements will be presented.

The facility to be designed should have all the necessary deemed to satisfy requirements of office space for administration purposes as well as areas for display and must, most importantly, represent the symbolic nature of motorsport in South Africa. To be included should be an area for presentation to the press and public and an auditorium for lecture purposes.

A method of “self-regulating” should be explored so as to require as little as possible capital outlay and ongoing costs.

The use of precedent study is part of the process in determining the baseline or performance criteria for the project as well as for finding solutions to similar problems encountered by other designers. The result will lead to decision-making that has been well researched and explored and produces an educated and well-informed design.

Certain information is required before a precedent study can take place, and these include the criteria for the precedent study, acquiring the correct precedents and analysing the various materials in terms of the criteria to determine their validity.

The criteria in determining these precedents is the ability to show the exploration by different designers of the link between the architecture and its function and also the relationship between the architecture and function, and the user.

Architecture:
- The BMW Zentrum, USA
- Nissan Showroom, Menlyn, Pretoria
- Melrose Arch, SA
- McLaren Headquarters, UK
- SAB Visitors’ Centre, SA

The motor racing precedents are required for establishing the culture of the motor racing society and the need for further enhancement architecturally.

Motor Racing:
- The Goodwood Festival of Speed and the Goodwood Revival, UK
- The Vodacom Power Tour, SA
- The Donnington Collection, UK.

The choice of site should heavily weigh on the context of the situation as presented. The site should represent the nature of ideals and culture of motor racing while also displaying the characteristics of the forward movement of the motor racing industry.

It should be noted that due to the proximity of the current clients to the Kyalami Grand Prix circuit, it would be suggested that the site fall within the boundaries of the Kyalami Grand Prix Circuit.