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MOTOR SPORT

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NIGEL ROEBUCK

Hamilton & McLaren: best for both sides?

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Tony Stewart: An AJ Foyt for the modern age
By Gordon Kirby

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'Steve McQueen raced my Mini!'
Simon Taylor meets racing aristo Sir John Whitmore

Aston Martin's Vanquish revival
'Its most convincing GT since the DB5,' says Andrew Frankel



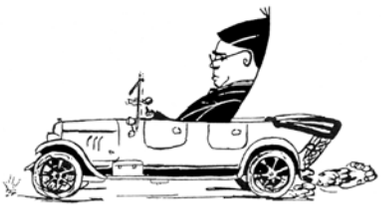
WORLD EXCLUSIVE

ADRIAN NEWEY'S F1 EVOLUTION

His designs have set the pace for 20 years. Now Red Bull's visionary drives what he drew

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Matters of Moment

Forget next year, what happens in 2014 is the hot topic in motor sport circles right now. Major new regulations are due the season after next that will change the shape of Grand Prix and sports car racing. But in both worlds there remain question marks over exactly what this new landscape will look like.

In Formula 1, the FIA is pressing ahead with its plan to introduce 1.6-litre V6 turbos, though Bernie Ecclestone appears determined to torpedo the new regs in favour of sticking with the current 2.4-litre V8s. The tensions between Ecclestone and FIA president Jean Todt haven't yet boiled over publicly, but make no mistake: fuel efficiency, the development of energy recovery systems and engine regulations better suited to the specific technical and marketing needs of the world's car manufacturers are a clear priority for one party, and emphatically not for the other.



Damien Smith
Editor

In this issue, Adrian Newey reflects on 20 years of F1 evolution and appears resigned to ever-tightening rules that strangle expressive and original design. As he admits, the layout of the modern F1 car is more or less dictated by the constrictive regulations, and that won't change in 2014 whatever the engines. Perhaps he should switch to designing sports cars instead.

That's because in this area the FIA, in partnership with Le Mans governing body the ACO, is adopting a philosophy that harks back to the Group C days. Instead of tightening restrictions on engine sizes and capacities, sports car design will be dictated solely by how much fuel is consumed. This offers car makers the freedom of choice: petrol or diesel, hybrid or any future technologies such as electric, fuel cells or hydrogen, all are permissible – at whatever engine size they choose. For each concept, a fuel allocation will be set and it'll be up to the engineers and designers to make the most of how much they have to work with.

At the FIA World Endurance Championship round at Fuji Speedway, ACO sports director Vincent Beaumesnil put it this way: "Whether they choose a V16 with a 10-litre capacity or a moped engine, it'll be down to how the manufacturers use the fuel they are given." Hell, prototypes could even run with 1.6-litre V6 turbos…

The new direction was set out back in June at Le Mans, and at Fuji the FIA and the ACO offered more detail as the rules are honed. The biggest potential stumbling block is how the fuel usage is measured. Two mandatory fuel flow systems are being investigated, and the whole philosophy behind these rules hangs on finding which solution can be the most accurate and reliable.

In sports cars, Newey would still find restricted chassis dimensions – the prototypes will be narrower and open LMP1 cars will be banned in the name of safety – but the design packaging choices offered by the various power concepts and subsequent engine sizes should allow genuine freedom of creativity. Sports car racing remains the only true open formula in international motor sport.

At Fuji, there was also good news for GT manufacturers. The FIA and ACO will invite them to form a 'working group' to create a single, global GT formula. They want the performance levels of the current GTE cars matched to the affordability of the burgeoning GT3 category that is attracting huge grids featuring all the major car manufacturers. As you will read in this issue, Bentley is the latest to join them.

So why don't they just adopt GT3? Well, there isn't a rulebook to work from, and the FIA and ACO demand one for Le Mans and its World Championship. Cars of all shapes and sizes are eligible for GT3, and their performance is then balanced to ensure all can be competitive – exactly what has attracted Bentley. It works to an extent, but it's a contrived and ultimately unsatisfactory way to go motor racing.

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No timescale has been set for this new GT rulebook. A consensus within this large working group will surely be hard to find, while car manufacturers may need some convincing to fund, build and market all-new cars. The process will take years. But like the new prototype philosophy, it's an ambitious, idealistic step in the right direction.

In an email exchange before I headed out to Fuji, Vic Elford told me my trip would not be complete without exploring the old Turn 1 banking – if it was still there. "At the end of the long pit straight, there is now a right-hand hairpin followed by the rest of the circuit," he wrote. "When I raced there for Toyota in 1969, that right-hand bend was not there… we went flat out straight over the top of a blind crest and then dropped into a steeply banked curve."



Felicity Rodgers

Inspired by his vivid memories of the circuit that sits in the foothills of the magnificent Mount Fuji, I went exploring. And there, beyond the modern hairpin and the perimeter road that bends round it, lay a couple of hundred yards of the most fearsome-looking banking I'd ever seen. Thankfully, it was preserved during the Tilke rebuild and stands as a monument to the original Fuji Speedway.

When the track was constructed in the early 1960s, it was intended to be a full-blown oval, but financial constraints forced a change of plan. The resulting road course, featuring a mile-long straight, that terrifying banked corner and a flowing section of infield bends, was spectacular – but lethal.

In 1969 Elford spent a couple of months at the track developing the potent Toyota 5-litre Can-Am car, then raced it in the sports car Grand Prix. One can only imagine how it must have felt to come tonking down that long straight, then diving blind down a drop of what must be at least 30 feet on to steep 30-degree banking – with barely a lift. Elford was famous for his bravery. Here, he needed to be.

The banking claimed its fair share of victims and was finally closed in 1974. The 'new' Fuji was, of course, the scene of the infamous Hunt vs Lauda climax in '76 and the tragic '77 Grand Prix in which a marshal and a photographer were killed when Gilles Villeneuve's Ferrari vaulted the catch fencing. The modern Tilke circuit, which hosted the Japanese GP in '07 and '08, has lost some of its charm thanks to the inevitably vast run-offs and a fiddly final third of the lap, which isn't a patch on the old and very long swooping final curve. But it still offers a challenge to drivers, and set against such a picturesque backdrop, the track offers magnificent views for spectators. I loved it.

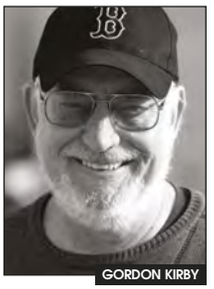
Fuji is a wonderful addition to the modern FIA World Endurance Championship. But that little stretch of forlorn banking, so easily missed if you don't know it's there, offers a startling perspective on how sanitised the modern sport has become.

The news that Lola Cars International has ceased trading has cast a significant shadow this month. It was hardly a surprise, in the wake of the company falling into the hands of administrators back in May. But as the skeleton workforce packed up and left, we ponder whether this is finally the end for the last of the grand old British racing car constructors. Martin Birrane has given his all, but in the absence of a buyer to take it as a going concern, the assets will now be sold. What a huge loss for the whole motor racing world.

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ADAM SWEETING


GORDON KIRBY


ED FOSTER


MATTHEW HOWELL

CONTRIBUTORS

A Formula 1 engine on song is music to the ears of any enthusiast, which may be why as well as writing about our sport **ADAM SWEETING** also writes about musicians for the *Daily Telegraph* and *Gramophone* magazine. When not gripped by the psychodrama of Michael Schumacher's latest and presumably final retirement, he has been trying in vain to nurse a sick MGF back to health. Meanwhile, he still has a tenner on Schumacher to win a Grand Prix before the end of the season.

If that victory comes in Austin, Texas, then our American correspondent **GORDON KIRBY** will see it first-hand. His normal fare, though, is Indycar racing, which meant that when we wanted the goods on Adrian Newey's formative years in US racing, Gordon could grab the Red Bull designer's good friend and one-time boss Bobby Rahal for the inside line.

Racing's all about speed, but **MATTHEW HOWELL** has never had to work as fast as on our Newey shoot, when he had just one lap of Silverstone to grab our cover photo of Newey and Coulthard in two of the F1 designer's cars. And it was the National circuit – that's a 40sec lap. Although the Ford Focus camera car might not have been exactly on race pace…

We don't usually see **ED FOSTER** as our technical guy, but since he went to Cornwall to watch Bloodhound SSC's rocket test firing, he won't stop firing statistics at us. "It covers four and a half football pitches every second!" Still, it's distracted him from his latest charity ploy, to navigate the Caledonian Canal and then traverse Scotland's wild north coast – in a pedalo. And that's not a misprint.

FORMULA 1

Challenges await US GP

The return of F1 to the United States after an absence of five years will be a major test both for the sport and for Bernie Ecclestone's ambitions in the country, not least because a second race is scheduled for New Jersey in June 2013.

The Austin event has had something of a rocky gestation, with founder and original guiding light Tavo Hellmund falling out with his partners, and Ecclestone giving the latter a hard time when they took over the project. However a new contract was signed and the fact that the race is happening suggests that the appropriate funding is in place.

The Circuit of the Americas was inspected in September by the FIA's Charlie Whiting. It features some dramatic gradients and fast corners which are expected to be challenging.

While the track itself is expected to get a thumbs-up, team sources say that pit and paddock facilities are basic compared with most modern venues, and the garages are on the small side.

Access remains one of the major concerns. Fans have been discouraged by a compulsory 'park and ride' system, as well as the prices quoted for campsite parking spots. The scarcity and cost of hotel accommodation is a problem not only for fans, but also for working visitors.

Whether the race can be a commercial success remains to be seen, but the timing is good, given the rise to prominence of Sergio Pérez. The promoters are expecting a large influx of visitors from Mexico, something that can only increase next year once Pérez joins McLaren.



FORMULA 1

Lauda central to Mercedes shake-up

The poaching of Lewis Hamilton by Mercedes was a huge coup for Ross Brawn and his men, and it ensures that the team will be under intense media scrutiny in 2013 and beyond.

The team also faces huge pressure to perform from the Daimler AG board after the three unproductive years of the Michael Schumacher comeback era. And the man who will be reporting back to Stuttgart is none other than Niki Lauda.

A few months ago the company's very future in the sport was under threat after it was excluded from the favourable commercial terms that prompted Red Bull, Ferrari and McLaren to commit to the new Concorde Agreement. The company's relationship with Bernie Ecclestone and F1 majority shareholders CVC had unravelled.

At the behest of Daimler AG chairman Dieter Zetsche Lauda was asked to use his relationship with Ecclestone to broker a deal. At the same time Mercedes was keen to have the best driver pairing in place; and since Schumacher's contract was coming to an end, and the multiple World Champion was holding back from committing himself to a new one, Lauda began casting around for an alternative.

"WE DON'T WANT TO SACRIFICE THE REMAINDER OF THIS YEAR WORKING FOR NEXT YEAR"

ROSS BRAWN

Hamilton was on his radar as long ago as the Canadian GP in June, and discussions really became serious in Spa (with Ecclestone in the loop) just before a mischievous Eddie Jordan broke the story in the run-up to the Italian GP. Meanwhile Ross Brawn had to present the board with a plan that promised to turn things around, and Hamilton was part of that.

In the end it all fell into place. Hamilton confirmed that he was coming just after Singapore, Mercedes agreed a more favourable Concorde deal than the one originally on offer, and – possibly wrongfooted by the speed of developments – Schumacher announced his retirement,



LAT

claiming that he was no longer motivated.

Having completed his initial tasks, Lauda has now been given the job of chairman of the board of the F1 team. Mercedes is already somewhat top-heavy, and certainly his arrival appears to have weakened the position of motor sport director Norbert Haug. It will be intriguing to see how the Austrian, a loose cannon who always says what he thinks, gels with Brawn. Some observers see him as a spy in the camp, the board's direct line to what's going on at Brackley and at the circuits.

Meanwhile the technical 'superteam' that Brawn has created over the last couple of years, including Bob Bell, Geoff Willis and Aldo Costa, has to get results in 2013. They came together too late to have a real impact on this season, so the focus has been very much on next season and the turbo era that begins the year after that.

In 2008, when running under the auspices of Honda, the team stopped work on its then-current car and poured huge resources into its 2009 contender. That car then provided Jenson Button with the platform that he needed to seize the drivers' title. Mercedes is not involved in the 2012 championship fight, so theoretically it is able to focus on next year to a greater degree than its main rivals can currently afford to do.

"It's a balanced approach," Brawn insisted at the Korean GP. "Our chassis team are designing next year's car. We don't want to sacrifice the remainder of this year working for next year, but it's a pretty strong aspect."

Whether the philosophy pays off as spectacularly as it did in 2009 remains to be seen. *Adam Cooper*

■ SPORTS CARS

Jaguar seeks GT3 partners

Jaguar is gearing up for a return to sports car racing with a car that could be built by Williams.

The British manufacturer is evaluating an entry into the GT3 category with the new F-type, which was unveiled at September's Paris motor show. It has already started a tender process to find a partner to develop and build the car and Williams is known to be in the running.

Jaguar has yet to comment on its plans without denying that it is evaluating a GT3 version of the F-type.

"Jaguar doesn't have a motor sport programme," said a spokeswoman. "If this changes, we will communicate our plans accordingly. We cannot comment on speculation or rumour."

Williams, whose last venture into sports car racing resulted in the 1999 Le Mans 24 Hours-winning BMW V12 LMR, already has links with Jaguar. Its advanced engineering arm is jointly developing the four-cylinder petrol-electric Jaguar C-X75.

Jaguar is understood to have received various bids to mastermind the project. A meeting at the end of September whittled this down to a final two: Williams and Ray Mallock's RML.

It is unclear whether Jaguar would use the supercharged V6 version of the F-type for racing or wait for a forthcoming V8-powered car. It is unlikely to hit the track before 2014.

Jaguar previously had an involvement in GT3 with the late Richard Lloyd's Apex Motorsport squad which developed the XKR, but the project lost momentum in the wake of Lloyd's death in a plane crash in 2008.

■ FORMULA 1

New York replaces Valencia in 2013 calendar

The replacement of the European GP in Valencia with the Grand Prix of America in New Jersey is the biggest change on next year's provisional F1 schedule.

Valencia's departure was expected, and the venue is now expected to alternate with Barcelona as host of a single Spanish event.

The New Jersey race has been placed immediately after Montréal, making for easy travel and freight arrangements. However it remains provisional, and its contractual status is currently uncertain. Bernie Ecclestone announced in late September that the promoters had failed to fulfil their obligations – a similar scenario to that in which the US GP in Austin was embroiled – and that the contract was void.

The NJ promoters insist all is well and are continuing to build the pit complex at the Port Imperial ferry terminal.

In other changes from this season Korea has been placed before Japan rather than after it, and the back-to-back events in Germany/Hungary and Belgium/Italy have now been made standalone races. Silverstone has also been moved forward to the last weekend in June.

2013 FIA FORMULA 1 CHAMPIONSHIP

MAR 17 AUSTRALIA	JUN 16 USA (New York)*	OCT 06 KOREA
MAR 24 MALAYSIA	JUN 30 GREAT BRITAIN	OCT 13 JAPAN
APR 14 CHINA	JUL 14 GERMANY	OCT 27 INDIA
APR 21 BAHRAIN	JUL 28 HUNGARY	NOV 03 ABU DHABI
MAY 12 SPAIN	AUG 25 BELGIUM	NOV 17 USA (Austin)
MAY 26 MONACO	SEP 08 ITALY	NOV 24 BRAZIL
JUN 09 CANADA	SEP 22 SINGAPORE	* remains provisional

■ SPORTS CARS

McLaren sets sights on Le Mans comeback

McLaren is on course to re-enter top-flight endurance racing next year with a version of its MP4-12C sports car eligible for the Le Mans 24 Hours.

The British manufacturer, which won Le Mans with the F1 GTR in 1995, has revealed that it is well underway with development of a GTE version of the MP4-12C already racing in GT3. McLaren hasn't ruled out taking the car to Le Mans itself, but it is more likely that a factory or factory-assisted team will develop the car in race conditions over the second half of the season in preparation for the delivery of customer cars in 2014.

McLaren's new GT operations director Andrew Bailey said: "We will be developing the GTE next year. Most of the design work is done and the engine is in development. We might do some races at the end of the year; we are still at the stage where we are weighing up our options."

Bailey and McLaren Racing's CEO Martin Whitmarsh have stressed that the organisation's focus for 2013 would remain on GT3.



It has come in for criticism from its customers this year over the reliability and service provided for the car.

Whitmarsh said he wanted to create "the best possible customer experience" for the owners of the car. He admitted that McLaren GT, a joint venture with CRS Racing, had overstretched itself in delivering 25 cars to customers for the 2012 season.

The project relocated from the CRS base in Leicestershire to the former McLaren International F1 factory in Woking in October.

Bailey said: "We are swinging the GT group under the F1 team and we will see more integration. We want to bring a bit of F1 sparkle to the GT programme."

McLaren is expected to produce a further 15 GT3 cars for next season. That would take it beyond the 28-car production figure for GTR versions, both long and short tail, of the F1.

■ HISTORICS

Classics combine

There will be a new look to classic rallying in 2013 after the Historic Endurance Rallying Organisation and the Classic Rally Association announced a joint venture.

Each organisation, the two biggest in Europe, will retain its own identity and events, which include classics such as the Classic Marathon.

"Sharing resources will improve our combined portfolio of events. It will also allow the development of joint initiatives such as training days," said Tomas de Vargas Machuca of HERO.



■ HISTORICS

Reynolds takes title

Julian Reynolds and co-driver Patrick Walsh secured the British Historic Rally Championship title on the Colin McRae Stages after a stunning campaign in their Ford Escort Mk1.

"It was great to win it on a rally run in Colin's memory," said the Welshman, who was a contemporary of Richard Burns in the Peugeot Challenge. Although his pace has never been in doubt, budget constraints mean that Reynolds has rarely been able to mount a title challenge. "I've always had to do one rally at a time, but this year I said I'd do it and we did. It was a big commitment and everything went our way."



■ WRC

WRC rivals lament life without Loeb

Sébastien Loeb secured his ninth and what is likely to be his final World Rally Championship crown in his native France in early October.

Having dominated the sport for the best part of a decade, the 38-year-old is trimming his WRC campaign to focus on his new career in the World Touring Car Championship with current team Citroën, possibly from as early as 2014.

While this gives his rivals more chance to compete for the WRC crown – Loeb's list of events is likely to total five – some are not entirely happy with his decision after he landed his 75th WRC-career victory in Strasbourg.

Sébastien Ogier understudied Loeb at Citroën before going to Volkswagen at the end of last year amid several high-profile spats. "Everybody wants him to continue because he makes the championship interesting for us, pushing us to the top," said Ogier, who will front Volkswagen's WRC challenge in the new-for-2013 Polo R. "He's a fantastic driver and we really wanted the challenge to be there."

Malcolm Wilson, boss of the rival M-Sport, agreed: "I'm running out of words to describe how good he is but I don't want him to stop because it's always been my target to beat him. He's stopped [our team] winning probably eight titles so I want to beat him while he's still there competing."

Ogier disputes the suggestion that Loeb's departure will reduce WRC's appeal, saying "it would be better if he continued, but it's his choice and we respect it. There's no problem".

Loeb has yet to finalise his schedule for next year beyond committing to the Monte Carlo Rally in January with Citroën. But if the massed ranks of his fans lining the route in France is testament to his popularity, then several event organisers will be anxious about his potential absence.

With Loeb moving on, Citroën number two Mikko Hirvonen will front the team next season while Emirati Khalid Al-Qassimi will join him at the behest of new sponsor Abu Dhabi. *Richard Rodgers*

As we went to press both Ford and MINI announced they were ceasing factory support for their WRC teams.





■ RACE OF CHAMPIONS

Hunter-Reay and Whincup join RoC roster

2012 IndyCar Champion Ryan Hunter-Reay and triple V8 Supercar champion Jamie Whincup are the latest names to sign up for this year's Race of Champions.

The event – which is being held in Bangkok for the first time – is taking place on December 14-16 and will also feature the likes of Michael Schumacher and Sebastian Vettel. Mick Doohan will team up with Whincup in Team Australia for the Nations Cup.

"After a career-best season culminating in an IndyCar Series Championship," said Hunter-Reay, "I could see no better way to cap off 2012 than representing the USA and IndyCar, competing against the best drivers from other top-level championships around the world. It has always been a goal of mine and I'm honoured to be one of the few invitees to compete in the Race Of Champions."

■ SPORTS CARS

Sebring dropped from WEC

Next year's FIA World Endurance Championship will begin at Silverstone following the disappearance of the Sebring 12 Hours from the calendar.

Sebring, which kicked off the revived WEC in 2012 and was the first round of last year's Intercontinental Le Mans Cup, has been replaced on the WEC schedule by the new home of the US Grand Prix, the Circuit of the Americas in Texas. The US fixture has been moved from Sebring's March date to September for logistical reasons.

2013 FIA WORLD ENDURANCE CHAMPIONSHIP

APR 14	SILVERSTONE SIX HOURS (GB)
MAY 4	SPA SIX HOURS (B)
JUN 22/23	LE MANS 24 HOURS (F)
AUG 31	SAO PAULO SIX HOURS (BR)
SEP 22	AUSTIN SIX HOURS (USA)*
OCT 20	FUJI SIX HOURS (J)
NOV 10	SHANGHAI SIX HOURS (PRC)*
NOV 30	BAHRAIN SIX HOURS (BAH)

** remains provisional*

That means the 2013 WEC will now begin in Europe. The Silverstone Six Hours, which took place in August this year, has been moved ahead of the Spa round in May to become the opening race on April 14. It will be a double-header weekend with a round of the European Le Mans Series occurring on the Saturday.

WEC boss Gérard Neveu explained that there were a number of reasons for the disappearance of the historic Sebring fixture from the series. Accommodating both the WEC and the ALMS grids on the former airfield circuit – which has room in the pits for 64 cars – would be difficult, he said.

Neveu added that it was important for the WEC has its own identity. He also explained that a desire to save on transportation costs had resulted in a calendar reshuffle with all the races outside Europe taking place in the second half of the season.

■ HISTORICS

Marathon to run in reverse

The route for the 2014 Sydney-London Marathon Rally has been confirmed, with a daunting schedule of over 1700 miles of special stages in a total route of more than 7000 miles.

The first rally connecting Sydney and London for a decade will also break new ground by running in the opposite direction to all previous events. A major factor in the decision was the bio-security problems associated with taking dirty rally cars into Australia.

A 12-day leg, starting on April 12, will take crews to Perth, where the cars will be airlifted to Turkey. Then comes an 18-day trek across Europe, taking in Slovakia and Croatia, with a rest day in Rijeka. The final special stages will be held on the Epynt ranges in Wales before the rally finishes in London on May 11.

MOTOR SPORT SINCE 1924 HALL OF FAME 2013

The build-up to the 2013 *Motor Sport* magazine Hall of Fame rolls on. Each year we host a star-studded night to honour great names of our sport and invite a selection from the past and present to join our club of heroes. Ahead of the big night on February 25, 2013 we have been asking those who are already members of the Hall of Fame whom they would choose to join them. This month we speak to four-time Indycar champion and three-time Indy 500 winner **Dario Franchitti.**



"My nominee would be Rick Mears, four-time winner of the Indianapolis 500. I believe he's one of the smartest drivers ever to sit in a car – his intelligence was matched by his bravery and speed. He also tested for Brabham in 1982 and did such a good job I believe he was offered a Formula 1 deal from Bernie [Ecclestone] which he turned down to continue in Indycars."



So who would you include in the Hall of Fame? Go to
www.motorsportmagazine.com
and tell us who we should make a member in 2013



Two historic rallies celebrate the rich heritage of the RAC

LAT

HISTORICS

RAC Rally celebrated

Two events that celebrate the history of the RAC Rally will take place during November and both events promise a strong and competitive entry.

From November 9-11 the Rally of the Tests will recall the era before the RAC Rally moved on to forest special stages. Starting from Torquay, the finish venue for the inaugural event in 1932, the route heads north and west to run up through Wales and finish in Chester.

A capacity field of cars from the 1950s and 1960s includes previous winners Frank Fennell, Paul Wignall and John Bateson. They will tackle a route that includes 35 special tests, 20 road regularity sections and two night navigational sections. "It's one of the toughest and most enjoyable events on the calendar," said clerk of the course Guy Woodcock.

Two weeks later, the Roger Albert Clark Rally will re-create the forest-based RAC Rallies of the 1970s with a route that starts in Pickering, North Yorkshire, on November 23 and finishes in Carlisle on Sunday afternoon.

Leading entries include Ford Escort Mk2s for former WRC entrant Grégoire de Mévius, sports car racer Guy Smith and rising rally star Martin McCormack. "It's a rally I love and it is unfinished business," said McCormack, who pushed Malcolm Wilson for victory in 2008.

In between the two British events is the Silver Fern Rally in New Zealand, perhaps the finest historic gravel rally in the world. Entries for the week-long event include Peter Smith, who will then fly back to the UK to compete alongside his son Guy on the Roger Albert Clark Rally.

British historic rallying scene faces shake-up

A new rally championship, run by the team behind the Roger Albert Clark Rally, will shake up the face of historic special stage rallying.

The Roger Albert Clark Rally Championship will go up against the existing British Historic Rally Championship by running classes for all the current categories as well as a new class for cars produced up to 1987. The present cut-off is the end of 1981.

The new championship will comprise seven one-day gravel rallies. "Times are difficult and we are very keen to make the championship as accessible as possible," said promoter Colin Heppenstall.

Rallye des Alpes returns

The Rallye des Alpes will return to the calendar again in 2013 after a year's sabbatical, starting from Lake Geneva on July 8.

Five days of regularity rallying will await the crews, covering Switzerland, Italy, Austria and Germany before finishing at the ski resort of Garmisch-Partenkirchen.

It will be the 54th running of this famous rally. The very first Alpine motor rally dates back to Austria in 1910 while the inaugural Rallye International des Alpes started from Marseille in 1932. In the 1950s and 1960s the event was revered as one of the toughest of all international rallies.



Damon Hill helped celebrate his father's 1962 title

BRM is Bourne again

Thousands of spectators lined the streets of the small Lincolnshire town of Bourne in early October for BRM Day. The special day commemorated the 50th anniversary of BRM's success in the 1962 World Championship with Graham Hill.

Star guests included three-time World Champion Sir Jackie Stewart and 1996 World Champion Damon Hill. Stewart and Hill Senior were team-mates in P261s in 1965, the first of Stewart's three seasons with BRM.

The whole town was turned over to the event, with cars demonstrated on sections of closed public road. A special feature was an array of Grand Prix cars from 1962, including the ex-Jim Clark Lotus 25.



Simon Hildrew



McLaren claims star billing in Paris

The 2012 Paris Motorshow should be remembered for being the most 'real' show we have seen in a long time. From the new Renault Clio to the new Volkswagen Golf, past the Peugeot 208GTI and an excellent close-to-production concept of BMW's new three-cylinder, front-drive hatch, the halls were full of interesting cars you or I might actually go out and buy.

And yet, unsurprisingly, even a few short weeks after it threw open its doors, all anyone seems able to talk about is the McLaren. Some 18 years after officially revealing the F1, McLaren has shown its replacement, the P1 (right). And if it's as good to drive as it is at setting journalists' tongues wagging McLaren will have a runaway success on its hands.

There are three reasons for this. First, any car that seeks to follow in the footsteps of a machine that defined the parameters of what a road car can do is naturally going to attract a lot of attention. Secondly, there is the styling. I will reserve judgement until I've actually seen one in a natural environment, because its shape is so complex and different it's impossible to gain a proper sense of the car's proportions when it sits by itself under bright and artificial light. Those I've spoken to seem equally split roughly between lovers and loathers but if McLaren's aim was to ensure that no one called it boring as they did the MP4-12C, it has succeeded.

The final reason it seems likely to retain our interest for the year or more that will pass before anyone is allowed to drive it is that we still don't know that much about the machine. McLaren is learning the road car PR game fast and at the motorshow decided that all it would talk about for the time being was aerodynamics.

So what we know is that at some unspecified velocity well short of a top speed likely to near the 240mph of the F1, its deployable wings will generate up to 600kg of downforce. It's possible something like a Dauer 962 might do the same, but in the realm of what we recognise as standard production cars (McLaren says that it will build up to 500), this is unprecedented.

Quite what value it will have remains to be seen. McLaren's stated aim with the P1 is to make 'the best driver's car in the world on road and track' though what it means by 'best' has yet to be revealed. It will surely be the quickest, if not in absolute straight-line terms, then at least round a track. With that much downforce, a weight of around 1300kg and at least 750bhp, I'm expecting it not just to break the production road car Nürburgring record, but reduce it to atoms. I expect it easily to go under seven minutes and some way into times hitherto set primarily by Group C cars.

"I'M EXPECTING IT TO REDUCE THE ROAD CAR NURBURGRING LAP RECORD TO ATOMS"

Quite what will transpire when some owner with perhaps more money than sense decides to discover what happens when you deploy over half a tonne of downforce to enter a corner on the public road is perhaps best not dwelt upon.





While McLaren showed off the P1, Ferrari was content to reveal just the tub of the successor to the Enzo, due out next year. It uses four different carbon fibre weaves according to the load requirements of their location in the chassis. The result is a structure that at 70kg weighs 20kg less than the Enzo tub yet is 27 per cent more torsionally rigid. No wonder they prised Rory Byrne out of retirement to mastermind its design.

by Andrew Frankel



This is your co-pilot speaking...

I've been for a ride in the new Range Rover. Not a drive (that comes next month), but enough time in the passenger seat to remind me how meaningless are such evaluations.

I hate doing them generally, but never more so than when Mike Cross, the head of Jaguar Land Rover vehicle dynamics, is at the helm. I've sat next to him dozens of times over the past 20 years and he could make you think a Tesco trolley handled like a Lotus.

So what can I reliably tell you about only the fourth all-new Range Rover of the past 42 years? It's better looking in flesh than photo, far more spacious inside than its predecessor and bizarrely quiet given its size. I was most interested however to see how it rode, if only because the challenge of making a car the best off-roader in its class while attempting to rival the S-class Mercedes for bump isolation seems nigh on impossible.

Cross was always surprised by how good a press the ride of the old car got, but he won't be when plaudits for the new one start rolling in. It's no S-class, but it still brings a new level of comfort to this class. As for the rest I, like you, will have to wait a few weeks.

Jaguar Land Rover firing on all cylinders

It's not just the Range Rover that's keeping JLR busy. There's a new product offensive coming that seems certain to keep both Land Rover and Jaguar in the news for months and years to come.

Most obviously Jaguar will put the F-type on sale. The final production version was at Paris and my only complaint is that it will first go on sale as a convertible. I know that smart thinking says you design the convertible first because it's a doddle to turn that into a coupé. But to me a convertible is always a derivative, not the main event and, like almost all of its type, the still-pretty open F-type is less attractive than its closed sister.

But I suspect the real reason is that Jaguar expects the open F-type to be the more popular of the two designs and wants to put its best-selling foot forward first.

Another new Jaguar will be the XFR-S, an XFR with its engine boosted from 503bhp to 542bhp and bodywork, chassis and price modified to suit. Super saloons are among my favourite cars and as the XF is already the best-handling Jaguar, I'm looking forward to this one more than most, despite the inadequate sub-70 litre fuel tank.

On the Land Rover side attention now turns to the Range Rover Sport. The current car is by some distance Land Rover's least appealing product but that's not stopped it out-performing even its most optimistic sales forecasts. Expect the new car in a year and for it to be based on a modified version of the Range Rover's all-new aluminium monocoque, weighing up to half a tonne less than the current Discovery-based offering.

As for said Discovery, the issue is whether it too can be made from the Range Rover architecture. Traditionally, aluminium cars have needed to be expensive low-volume models, something which argues against it. That said, every time the Disco moves more upmarket and expensive, sales go up, not down. With the drive to lower weight and CO2 emissions ever more important, I'd wager the next Discovery will be more expensive still, and aluminium in structure.

Finally, don't hold your breath for the new Defender. Though concepts have been shown, the final design remains undecided. Land Rover must avoid the temptation to produce a fashion accessory, not only because the military won't like it. It can do what it wants with all its other cars so long as one remains a hard-core, off-road working tool. Like the current car, it is its function not its form that matters. In short, if you can't take a hosepipe to the interior, something will have gone badly wrong.





AND THAT REMINDS ME...

It's *Motor Sport* readers' favourite circuit – and it's Frankel's too

THE POLL ON THE *MOTOR SPORT* WEBSITE TO discover your favourite Grand Prix circuit of all time brings back memories of two trips I did around Europe for the magazine at the end of the last century.

In no particular order, I recall going to Reims, Rouen, Monza, Spa, Zandvoort, Clermont-Ferrand and the Nürburgring, and I even went to the Klausenpass.

Of them all, Spa sticks in my mind. I race there at least once a year and always take a few minutes to drive the old circuit, all of which save the corner at Malmedy is still there. There are parts of other circuits that seem horrendously dangerous, none more so than the downhill section past the pits at Rouen. But there is none – not even the 'Ring – on which the idea of actually racing is so consistently beyond the imaginings of yellow-bellied amateurs like me. So far as I can see I'd start screaming at the entrance to Burnenville and stop only at the exit of Blanchimont and then only to gather breath to howl through an unsanitised Eau Rouge.

Actually I have mixed feelings about the place. To illustrate how lethal it was, of the eight British drivers who contested the 1960 Belgian GP, only half survived unscathed. Chris Bristow and Alan Stacey died and Stirling Moss and Michael Taylor suffered horrendous, and in Taylor's case, career-ending injuries.

But happy thoughts abound too: of Rodriguez and Siffert banging wheels in Porsche 917s, and Jacky Ickx lapping at 163mph in a Ferrari 312PB. One day they'll close the road from Malmedy to Stavelot and allow old racing cars to drive around the track again. But until then, just get in your car and drive out there, sit outside the chip shop on the Masta straight and think of the fastest Grand Prix and sports cars coming through the kink with scarcely a lift. You will barely believe it.

Spa polled more votes on our website than Monaco, Monza and the Nürburgring combined. Quite right too.

TO READ ANDREW FRANKEL'S LATEST ROAD CAR TESTS, TURN TO PAGE 112

Fuji Six Hours



To the delight of the crowd, Nakajima was at the wheel for the final stint

Fuji Speedway, Japan

THERE WAS A LOT OF PRESSURE ON **Kazuki Nakajima** and the Toyota Racing team at their home round of the inaugural FIA World Endurance Championship. Company president Akio Toyoda headed the list of VIPs who carried the highest expectations of the lone TS030 Hybrid. Nothing less than victory would do.

That Nakajima should be at the wheel to deliver that win was a perfect ending to a great race at Fuji, a track owned by the car giant itself. The son of 1980s Fuji Formula 2 race-winner Satoru Nakajima, teamed with **Alex Wurz** and **Nicolas Lapierre**, just kept his lead after a late 'splash and dash' pitstop for fuel to complete a narrow defeat of Audi's Le Mans winners **André Lotterer, Benoît Tréluyer** and **Marcel Fässler.**

Strategy over raw pace was key. The TS030 could double-stint its tyres throughout the afternoon, a feat Audi's pair of R18 e-tron quattros could not match. Still, the lead Audi should have won in Fuji, only for a contentious stop-go penalty to thwart its bid.

In his chase of the Toyota, Tréluyer ran into **Stefan Mücke's** Aston Martin at the tight Turn 10, spinning the Vantage round and damaging the R18's front splitter. A safety car period to clear debris from the incident appeared to save Benoît's blushes, only for the penalty call to ruin his day.

Lotterer claimed the penalty was "harsh" and it was the German who gambled on double-stinting his tyres on the final stint in a bid to overhaul Nakajima. The Japanese needed a gap of more than 40 seconds to pit and still keep his lead, and he just managed it. "I had no weapons to fight," a glum Lotterer said later.

But at least Audi's trio strengthened their grip on their World Championship lead. Team-mates **Allan McNish** and **Tom Kristensen's** distant third place leaves them with only slim hopes of winning the title at the Shanghai season finale. McNish had run second to Wurz in the opening stint, only to be surprised and annoyed by Lotterer's dive down his inside as they lapped traffic at Turn 10. Lotterer's move was clean, but McNish suffered a rubber pick-up vibration thereafter and fell off the pace.



McNish/Kristensen had trouble with vibration and traffic

LAT



Both McNish and Kristensen clashed with traffic as they tried to make up time during a frustrating afternoon for the Le Mans legends. At least for Audi the manufacturers' World Championship is already in the bag, the hybrid R18s having sewn up the title earlier in the season. The new technology, introduced this year, has won Le Mans and a World Championship in its first

season – so to suggest Toyota's victory in Japan marks a change in the world order of sports car racing would be something of an exaggeration. Instead, what is clear is that the dominant force in the sport has a new fight on its hands after the withdrawal of Peugeot this year – and that's great news for the World Championship.

ADR-Delta claimed the LMP2 class, with former Prost and Minardi GP driver **Shinji Nakano** another home winner. Behind them, US-based Scot **Ryan Dalziel,** former Peugeot ace **Stéphane Sarrazin** and **Vicente Potolicchio** did enough to secure the inaugural LMP2 teams' World Championship for the Starworks squad.

As the magnificent backdrop of Mount Fuji faded into the darkness, Nakajima reflected on the biggest win of his career to date. "To win a World Championship race has always been my ambition," he said through the biggest of grins. "It's just great to share this with my team-mates and everyone at Toyota."

The breakthrough win in Brazil had been special. But on home turf, in front of a large and enthusiastic partisan crowd? For everyone at Toyota, this was unforgettable. *Damien Smith*



Starworks won the LMP2 teams' World Championship

FORTHCOMING EVENTS

OCT 26-28 F1 India, New Delhi
OCT 28 MOTOGP Australia, Phillip Island
OCT 28 WEC Shanghai Six Hours, China
NOV 2-4 F1 Abu Dhabi, Yas Marina
NOV 3 ROAD CARS Future Car Challenge
NOV 4 HISTORICS London to Brighton Veteran Car Run
NOV 8-11 WRC Rally de España, Salou
NOV 10-17 HISTORICS Silver Fern Rally, New Zealand
NOV 11 MOTOGP Spain, Valencia
NOV 16-18 F1 United States, Austin
NOV 23-25 F1 Brazil, São Paulo
NOV 23-26 HISTORICS Roger Albert Clark Rally, Yorkshire & Scotland



GT40s set the pace up front as battles raged all through the order

Spa Six Hours

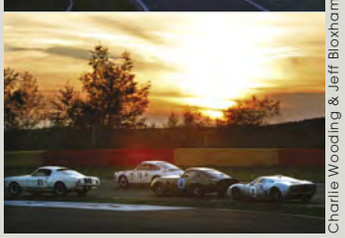
Spa-Francorchamps, Belgium

NEW ZEALANDERS **ROGER WILLS** and **Brendon Hartley** were the hares for most of the 20th Spa Six Hours, but **Simon Hadfield's** epic final stint in **Leo Voyazides'** sister Ford GT40 brought him past Wills, who was grappling with gearbox problems.

With 20 minutes to run P/1005 swept past P/1009, which lost a whole 54 seconds on the following lap, then pitted forlornly. Voyazides' Plan B-prepared car, runner-up in 2010 and '11, never missed a beat, however, in the longest and fastest race in the event's history.

The Greek was overjoyed at his first outright victory – and Hadfield's fourth – in the racing world's most celebrated historic enduro. "Simon drove the race of his life to pull back 45 seconds on Roger. His 2min 47sec lap in the dark, on a slippery track, five laps from home was incredible."





Charlie Wooding & Jeff Bloxham

Wills was classified fifth, his young team-mate having led most laps in a superb middle stint. "I'm gutted to have come so close," said Roger. "Second gear went, then fifth, then others. It was used up."

Shaun Lynn shared GT40 P/1025 with five-time Le Mans 24 Hours winner **Emanuele Pirro,** but finished second, one lap down, ahead of **Michiel Campagne's** Chevrolet Corvette Grand Sport clone in which **Allard Kalff** led 36 laps. "We didn't push hard enough early on in what became a six-hour sprint," said Lynn.

Behind the GT Prototypes, the GTS-winning Jaguar E-type of **John Clark**, his son **Chris** and **Alasdair McCaig** finished a brilliant fourth. "I had a big battle with **Sean McInerney's** TVR Griffith until I ran him out of brakes," said Clark Sr. The TVR later lost a rear wheel, which was struck by the E-type of last year's third-placed man **Chris Scragg.** Triple Spa winners **Jon** and **Jason Minshaw** and **Martin Stretton** (E-type) were out after nine laps with a split fuel tank.

Among the support races, **Simon Fish** (Ensign N180) scored his maiden Grand Prix Masters wins, pressed on both days by **Jean-Michel Martin** (Fittipaldi F8). A yellow flag penalty saw **Hartley/Wills** (McLaren M1C) concede Sportscar Masters success to WDK team-mates **Peter Hardman/ Gregor Fisken** (M1C).

Jason Minshaw (Brabham BT4) bagged a brace of HGPCA wins, while **Alex Furiani** and **Bernd Hahne** (Alfa Romeo GTA) prevailed in U2TC. Finally, Dutchman **Karsten Le Blanc** and **Nigel Greensall** (AC Cobra) claimed their first Gentlemen Drivers victory after ignition failure stranded the leading Cobra of Voyazides and Hadfield. *Marcus Pye*

VSCC Seaman Memorial Trophies

Snetterton, Norfolk

TODAY'S SNETTERTON CIRCUIT IS very different from the World War II Norfolk aerodrome on which motor sport made its debut in October 1951. The Vintage Sports Car Club had not run a meeting there before its Seaman Memorial Trophies season-closer on September 30, yet the feature result mirrored history.

Ken Wharton set BTD in the inaugural sprint, driving Peter Bell's ERA R11B. Supplied to Reggie Tongue in 1936, 'Humphrey' was invincible. **David Morris** piloted it to his eighth Historic Seaman victory, equalling his late father Martin's record in it.



Richard Styles

With the waft of racing oil on the stiff east wind, 200 charismatic racers – from Austin 7s and Rileys to lairy specials – packed what Snetterton devotees hailed as its best-looking paddock in living memory. And the unusually strong spectator turnout was royally entertained.

A ferocious Hawthorn International Trophy scrap between **Julian Majzub** (Sadler-Chevrolet Mk2), **Tony Bianchi** (Allard-Cadillac) and **Philip Walker** (Lotus 15) had the gallery cheering. The spectacle of the trio scrabbling from Chapman kink onto the Bentley Straight, where the V8s topped 160mph, was awesome. Walker won brilliantly, adding to his earlier Lotus 16 victory in the Flockhart Trophy.

Another highlight was Mercedes-Benz F1 boffin **Robin Tuluie** retaining his Vintage Seaman crown at the helm of his thunderous self-built Riley Menasco Pirate, while Bahamas-based **Will Mahany** (HRG) landed his eighth successive Spero Trophy. *Marcus Pye*

Nigel Roebuck



REFLECTIONS
– A slight case of over-sharing
– The delightful incorrectness of Sid Watkins

Every December, among the Christmas cards, one of those duplicated letters arrives. It is from a lady I do not know, now married to a long-departed neighbour, and it tells me – in suffocating detail – of the lives of every member of her family this year past. Her husband apart, I have never met any of them, so it hardly need be said that their activities are of minimal interest to me, and quite why she should assume it to be otherwise I am at a loss to understand.

Similarly, I struggle to comprehend the attractions of Twitter, which appears to me to be some sort of human tachograph. How does it illuminate my life to know that X is 'just off for a pizza' or Y is 'having a picnic by the river with his wife'? I mean, good for them – but why the compulsion to share this information with the world? A presumption that others breathlessly await detail of what you have been doing in the last 20 minutes strikes me as most odd.

Lewis Hamilton, like other F1 drivers, has long been keen on Twitter, but now, having used it to make a fool of himself twice in recent months, says he is having second thoughts, and no one – save perhaps the dreadful Ashley Cole – could have better convinced me that it is something I should avoid. Many times in life, after all, one says something one regrets almost immediately, but once it's out there in the ether, it's out there, and a lot of people have seen it. Alex Ferguson, I'm told, has apparently threatened to ban his Manchester United squad from using Twitter, and certain Formula 1 team principals may understand his motive.

Back on planet earth, meantime, in the space of a month – Singapore, Suzuka,



Will Fernando Alonso and Sebastian Vettel be Ferrari team-mates in 2014?

Yeongam – the complexion of the season has undergone a metamorphosis. Sebastian Vettel won all three races, and in a manner reminiscent of the 2011 season, which he dominated to such an extent that ultimately the Grands Prix began to seem indistinguishable, one from another, every Sunday ending with yet another Red Bull team victory photograph.

My Italian friends continue to assure me that Vettel, whose contract expires at the end of next season, will be a Ferrari driver in 2014, but I struggle to believe it. Yes, I know the new engine regulations come into play then, and it's entirely possible – although by no means guaranteed – that Ferrari's 1.6-litre V6 turbo will be superior to Renault's, but just as Fernando Alonso is very much *dans son jardin* at Ferrari, so is Sebastian at Red Bull.

That's one point. A bigger one by far is that Adrian Newey works for Red Bull, and I cannot – for all the allure of Ferrari – understand why any racing driver would voluntarily step away from driving Newey-inspired cars, a conclusion reached a few months ago by Mark Webber when offered the job of partnering Fernando next year. By recent Red Bull standards, this has been an up-and-down season, but as it enters its final phase Vettel again has a car so superior to its opposition that, as in 2011, he can set new fastest laps as the mood takes him. This is a service Adrian was providing for a succession of Williams drivers two decades ago.

> "Sebastian, for all the schoolboy charm, is ruthlessly single-minded"

Sebastian, for all the schoolboy charm (seen to best advantage when he's winning), is a hard-headed individual, and ruthlessly single-minded in the manner of all really great racing drivers since Varzi was a boy. Competitiveness comes before all else, and it would amaze me to see him leave Red Bull, even for Ferrari, while Newey is still on the premises.

True enough, in 1996 Schumacher headed for Maranello, after winning two World Championships with Benetton, but it won't have been lost on Vettel that not

LAT

Nigel Roebuck

until five years into his Ferrari career did Michael add a third to his CV. Alonso already had a pair to his name when he moved to Ferrari in 2010, and – so far – has rarely had a car comparable with the best.

That said, if I can't see Vettel leaving Red Bull, neither did I believe that, in the end, Hamilton would leave McLaren. Lewis has already said that he doesn't expect to win any Grands Prix with Mercedes in 2013, and if he truly believes that it seems an extraordinary decision for a driver, 28 next year, who must once have expected by now to have several World Championships on the board. Lest we forget, he missed it by a single point in his first season, and won it in his second.

In signing Hamilton, Mercedes will have F1's fastest driver on its books, but history shows that speed alone is not enough, and as the nature of F1 evolves, that becomes ever more true. While I don't doubt that Lewis's arrival will galvanise Mercedes to some degree, neither do I detect in him the sort of round-the-clock commitment found in such as Schumacher and Alonso.

This is a quality highly valued by Ross Brawn. Ten years ago, when testing was an almost ceaseless activity, and Ferrari was dominant, I chatted to him one day about Michael. "Sometimes," he said, "you suggest to him, 'Have a couple of weeks off between the races', but after a few days you'll get a phone call: 'How's the testing going? Any chance of trying it?' And he'll be down! With some drivers, you've got to give them a schedule for the whole year, and pick out the days you're going to need them, and then if you change it, you get, 'Oh, I've made my holiday plans', or, 'Oh, I was going to do this or do that...' I'm afraid my reaction to that sort of thing has always been, 'Look, mate, this is your job!' I mean, they get two and a half months off each year, when all they have to do is keep themselves fit..."

Although I believe that overall both Hamilton and McLaren have lost in this parting, in some ways it was probably inevitable – and, in some ways, too, the best for all concerned. Maybe Lewis needed to get away from the cocoon in which he has lived half his life (albeit a cocoon which had protected him mighty well), and perhaps McLaren folk, too, had wearied of his occasionally tiresome ways.

When Lewis's management, XIX Entertainment, first began discussions with Mercedes many months ago, rather little progress was made, for at that time the belief was that Schumacher was likely in the end to carry on.

As Schumacher continued to dither, however, Mercedes folk began to get fretful. Nico Rosberg's place in the 2013 team was not in doubt, but if Michael should decide in November that he was going to stop, what then? Who, that late in the year, was going to be available to take his place?

Meanwhile, with Hamilton unhappy about several aspects of life at McLaren – the PR requirements, the lack of freedom to make personal sponsorship deals, the team's retention of all trophies, etc – talks began again. If Schumacher laboured over a decision about his future, so also did Hamilton. I confess that, as soon as he put out on Twitter the McLaren telemetry showing his, and Jenson Button's, best qualifying laps at Spa, I thought, 'He's going', but as late as the Singapore weekend the feeling within the team was that he would stay.

A few days later, though, he informed Martin Whitmarsh that he had settled finally on Mercedes, whereupon McLaren – amid ludicrous stories of 'heads rolling' for 'allowing Lewis to get away' – activated Plan B, confirming Sergio Pérez as Jenson Button's team mate for 2013. A touch surprising, I thought, with Nico Hulkenberg available, but Pérez has occasionally excelled this year, and Carlos Slim casts a formidable shadow.

Schumacher, meanwhile, lost little time in announcing his retirement. What else was he to do?

Announcing his decision to quit, Michael said he was eagerly



Does Lewis have the same commitment that propelled Schumacher and Brawn (inset) to multiple glories?

LAT

anticipating his new life, but somehow it rang hollow, just as it did at Monza in 2006, when he was clearly leaving Ferrari – and F1 – before he was ready to go. Although he continued to work for the team, whenever he showed up for a race he looked lost, and one wonders what he will do now. Whatever else, the hope is that he will resist entreaties to join his brother in the DTM. I don't care to see retired Grand Prix drivers – let alone World Champions – humbled in lesser series.

As for McLaren and Hamilton, they have lost a hell of a driver, and he has lost a hell of a team. I wonder how it will all unfold. When Lewis's move was announced, I remembered something Chris Amon once told me about his decision, at the end of 1969, to leave Ferrari for the newly formed March team.

"I absolutely loved driving for Ferrari, living in Italy, the whole thing," Amon said. "I didn't leave because I wanted to change teams, but because I was fed up with being blown away on horsepower, and just felt I *had* to have a [Cosworth] DFV, like Stewart and Rindt. The Old Man begged me to stay, but my mind was made up, and the day I told him was one of the worst of my life. I'll never forget the moment we shook hands and said goodbye: 'Chris', he said, 'I will win a race before you do…' I regretted that decision for the rest of my career."

As I was doing one of my periodic office clear-outs recently, for some reason I began to think about phone conversations – sitting in that chair, at that desk – down the years. My office sits at the far end of the garden, and there have been times when circumstances have dictated that I've been in there round the clock. One such was May 2, 1994, the day after Ayrton Senna's death at Imola, when I'd got to bed in the early hours on race night, flown home on Monday morning, then worked through the afternoon and night. The racing world had been turned upside down, and there was much to be done, and that was the end of it.

Sometimes, though, I've found myself in the office at an unlikely hour for more parochial reasons, one of them that I've spent so much time on the phone during the day that the light is already failing as I start work on a story that needs to be in the following morning. Not very smart, I grant you, but then there are calls you can't turn away. Common sense tells you not to pick up, but then you note the caller's ID and you can't resist.

Anyway, as I paused from tidying up, and sat down with a coffee, I started idly reminiscing about conversations from times gone by, with people no longer around. I thought back, for example, to those countless occasions when the phone would ring just as I was on the point of leaving for the day. It was invariably Jenks: "I've just been thinking about that lap of Senna's on Sunday…" An hour and a half later I'd go in for supper.

> "He's seen me at races on TV and doesn't think I'm smart enough"

Usually James Hunt – "*Whatever* has Mansell been getting up to now?" – rang during the day, and so, too, did Rob Walker, invariably the very soul of laconic courtesy, save on those occasions when he was so worked up about something that he would forget even to say hello, instead drawling straight to the topic – "Nigel, has that ******* German been cheating again?" – on his mind.

Professor E S Watkins was similar in that respect. Usually, when you picked up the phone, the quiet voice at the other end would say, "Hello – it's Sid", but occasionally there would just be a chuckle, then an opening remark: "Max is trying to get rid of me again – but I don't think Bernie'll let him do it…"

Why is Max trying to get rid of you? "Oh, you know me – I don't snap to attention when I'm being spoken to by my betters! And he's seen me at the races on TV, and apparently doesn't think I'm smart enough – he doesn't like my tatty old cap…"

Anyone familiar with my writings may have taken on board by now my distaste for political correctness, which I hold responsible for the bulk of society's ills in the 21st century. It is not by chance that the folk in motor racing of whom I have been fondest tend to be of similar opinion, and 'The Prof' was a prime example. As far as I'm concerned, that was why he was the man he was – and why he was able to achieve as much as he did, both as one of the world's leading neurosurgeons and, for 30 years, as Formula 1's doctor.

He didn't care for bureaucracy and cant, the Prof, as illustrated by a story he once told me about his life away from racing. "I remember getting a note from the Dean at The London Hospital. I was a member of the academic board, but hardly ever went to its meetings, because they were on Monday, which was my operating day. This note said there was an item on the agenda about 'the absence from meetings of senior clinical personnel from the medical college'. At the meeting, the Dean said, 'Would anybody like to speak about it?'

"I said I would. I said, 'Now before we talk about absence, let's talk about *presence* – let's define presence. Are you present if you arrive at 10 o'clock, go straight to the coffee room, spend 45 minutes there, then go to the pool and swim for half an hour, then get into the gin and tonics, have lunch, then sleep through the afternoon in the club lounge until you're awakened for afternoon tea, then dash off – to avoid rush hour – so you can get home early? Now is that presence? Can we have a vote on that, please, because I know a lot of people who do that. And when we've finished talking about presence, I'll be very pleased to discuss absence...'"

Some clue to Watkins's personality may be gleaned from the identity of the drivers – Lauda, Scheckter, Villeneuve, Berger – with whom he became close friends. And Senna, of course, revered him.

"Ayrton would get off a plane at Heathrow, come straight to 'The London', and we'd go off and have a curry somewhere in the East End. It was quite funny, actually – you'd see people looking at him, thinking, 'That guy looks just like Ayrton Senna, but it can't be – what would he be doing in a place like this?'" »»

Nigel Roebuck

For years the Prof would suggest to Senna that, once in the lead, he should back off a touch, but it was always to no avail. "Ayrton couldn't help himself – and that, in my opinion, was his main fault as a racing driver. I used to tell him that the clever driver is the one – like Alain [Prost] – who wins while taking the least out of himself and the car. And he'd say, 'Yes, I know you're right – every time I go past your medical car, I remember what you said, and I feel guilty about it. But by the time I get to the next corner, I've forgotten...'"

It was a certainty, too, that Sid would hit it off with Innes Ireland, by then working in F1 as a journalist. "Ah, Innes, now there was a man. Very brave – immensely courageous, I think, throughout his whole life, not least in his final illness. He had prostate cancer, and he just called it, 'The dreaded lurgy...'

"Innes was such a great chap. Completely nuts in many ways. My favourite photograph of him is in his book, *All Arms and Elbows*, showing him undergoing rehabilitation in St Thomas Hospital after one of his shunts. He's in an orthopaedic bed, a hoist above him, and he's leaning on the edge of the bed, with a cigarette going, and a bottle of scotch on the nightstand. Lovely man..."

Over time Watkins, as we know, literally transformed medical practices in motor racing, but, as he said, there was plenty of scope for doing so. Fifty years ago, working at a hospital in Syracuse, New York, he was based near Watkins Glen, and in 1962 was invited to join the medical team at the US Grand Prix.

"I thought, 'Well, if I'm going there, and I've got some sort of responsibility, I'm not going to do it unprotected, so I took an anaesthetist with me, and an orthopaedic surgeon, and we went as a team. We took all our own equipment, and until 1969 that was the way I functioned at the Glen. We had a very primitive hut – we used to have to sweep the flies out, and spray disinfectant around to make it smell a bit clinical!

"In '69 Graham Hill had a bad accident at the Glen, and broke his legs. They took him to the hospital in nearby Montour Falls – and it was shut! He had to be taken to another one, 40 or 50 miles away. Nowadays, of course, at every circuit the nearby hospitals have been inspected, and we have a full list of the people on call, so we know who we're dealing with. And of course we had to insist on helicopters everywhere, because of the traffic problems – I remember that, at Anderstorp in 1978, there was no helicopter, except on race day. They said practice wasn't dangerous...

"The medical centre was a caravan – and it would only accommodate one injured person at a time. They had a tent alongside, to act as overflow. Brands Hatch wasn't much better – the medical centre was under the grandstand, and you had to go through the tunnel, through the public area, and carry the stretcher down the steps. Not what you'd want, really."

Watkins had returned to England in 1970, taking up the position of Professor of Neurosurgery at The London Hospital. Dean Delamont was a friend, and he asked Sid to become a member of the RAC Medical Committee, and to work at the British Grand Prix.

It was in the summer of 1978 that Watkins was asked to become Medical Consultant to FOCA – in effect, to take charge of the medical aspects of F1. The offer, of course, came from Bernie Ecclestone, and in a typically roundabout way.

"Bernie rang me, and said he wanted an appointment. I said, 'What about tonight? Seven-thirty in my office'. He seemed a bit surprised, but he turned up in his best gear, looking very dapper. I said, 'What's the problem?' 'Can't see out of my right eye'. I had a look, and said, 'Mr Ecclestone, this is not a recent problem – you've had this since you were very young', and he said yes, that was right. I said I was a brain surgeon, rather than an expert on eyeballs, but if he'd like a proper opinion, I'd organise it. He said, 'Yeah, OK, you do that...'

"It was all an excuse to come and see me. Then he said, 'We've got a lot of problems in F1. How about coming to every race, and sorting out the medical side?' I said, 'Yes, OK'.



Watkins (centre) and Hunt (right) had much in common; neither man was shy of voicing an opinion



"He said, 'You want to be paid, I suppose?' I said, 'Well, it seems reasonable'. He said, 'Well, how much d'you want?' I said I hadn't the slightest idea. He said, 'Well, what about $35,000 for the season?' I said 'OK' – and then he said, 'Of course you pay your own expenses – air fares, hotel bills, hire cars...'

"At the end of the first year my accountant rang me: 'What's this Formula 1 business?' I said, 'Well, they pay me 35 grand', and he said, 'Yes – and it's cost you more than that in travel!'

"After a few years Bernie said to me, 'I don't think we're paying you enough'.



Sutton

I said, 'I'm aware of that'. 'OK', he said, 'I'll pay you 50...' He'd been very clever in the first place, though, hadn't he? Got me to agree – and then told me how much it was going to cost me!"

For 26 years Watkins was present at every Grand Prix, and I always found it difficult to comprehend how he managed to combine that with his work at 'The London'. Sid found a way: "I was chairman of the department, so I wrote the rota. There was me and one other consultant, and we did 24 hours on, 24 hours off, and alternate weekends. I did the rota so that I was off for race weekends. I could leave Thursday night, and come back Sunday night, in time for operating day on Monday. So I'd do 26 weekends on call at the hospital, plus the Grand Prix weekends – I used all my annual leave for the races, so I basically had no holidays at all…"

> "I couldn't get to the accident. The police wouldn't let me through"

Whether or not he paid Watkins what he was worth, Ecclestone well knew the value of the man he had hired, and indeed it was a fact that down the years Sid was the only man in the paddock – perhaps the world – to whom Bernie always deferred. Very different people they may have been, but crucially they shared a profound distaste for red tape, and an ability to get things done.

"Only once did Bernie try it on with me – at Imola in 1987, when Nelson Piquet went off at Tamburello in Friday practice. There was no way I was going to let him near a car again that weekend – two hours after the accident, he didn't even know he was a racing driver!

"Next morning Bernie's suggesting I should let Nelson do a few laps, and if he felt all right, he could go into qualifying. I said, 'Bernie, if Nelson gets into a car, I'm leaving the circuit – and I won't be back'. All the Italian doctors agreed with me, and he said, 'Yeah, all right then...'

"Then he said, 'He's going to fly his own plane home'. I said, 'Fine'. He said, 'Well, why can you let him fly – but not drive?' I said, 'Flying's got nothing to do with me. My job's to look after the drivers. If he wants to fly himself, that's his responsibility, but if I clear him to drive, and he kills himself – or someone else – on the track, it's mine. *For-get it*!' And he did…"

Nine years earlier, the Italian Grand Prix at Monza, only Watkins's seventh race in his new capacity, had sparked what was effectively a revolution in F1 medical procedures. In a multiple accident at the start, Ronnie Peterson suffered severe leg injuries, and 12 hours later an embolism would end his life. Sid was outraged by the events of the day.

"I couldn't even get to the accident – first because I didn't have a car, second because, when I tried to get there on foot, the police wouldn't let me through. So I went straight to the medical centre, and received him there. He was quite conscious and rational. We put a splint in his legs, and we put a drip up. That was all done correctly, but there was no crowd control at all – while I was working on Ronnie, a photographer pointed a camera between my legs, to get a picture of him. I kicked him...

"When I started to write descriptions of how the medical centres needed to be, security was one of the requirements, and proximity to the helicopter was another – we had to carry Ronnie through the crowd to put him in the helicopter…"

Ecclestone's response was immediate. Appalled that Watkins had not even been able to go to the accident scene, he decided that, between them, they had to take responsibility for circuit rescue, that in future a medical car had to be available, enabling Sid to follow the opening lap of the race, and to get to any accident.

"That was a huge step – from me being there to give medical advice to being actively involved in the rescue. Of course in many places it wasn't appreciated at first. At Monaco they tried to stop us driving out of the pit exit, so Jacky Ickx – who was driving me – just aimed the car at Michel Boeri, and made him jump out of the way!"

Sid was always a wonderful raconteur, and some of his very best stories »»

Nigel Roebuck

concerned the medical car and those who drove him in it. They were not of uniform quality.

"When I started, the car was driven by Tom, Dick or Harry. At Watkins Glen, I remember, they produced a rather fat chap. We had a car without a back seat, so the anaesthetist had to lie, spread-eagled, on the floor. Wasn't ideal...

"After a few laps with this chap, I knew there wasn't a chance we could complete the opening lap without being caught by the pack, so I picked a point where we could come off the circuit, then get back to the pits through the infield.

"Just before the start, my driver began to pant a bit, and sweat, and when we got going he hit the chicane – very hard. He said, 'We got up in the air', and I said, 'Yes, I realise that...'

"After that we had various experiences, and it was obvious we needed to sort it out. At Long Beach Paul Newman offered to drive, but Bernie – typically – said, 'No way you're being driven by film stars!' Instead we got Phil Hill, who was magnificent and became a great friend."

At Kyalami one year the recently retired Carlos Reutemann was asked to drive the medical car. "He said yes, but he'd have to test it first. We went out in one of the two Fords supplied, and through the esses he had it flat – and let go of the steering wheel, put his finger in the spokes, and wound the wheel all the way in one direction, and then all the way in the other. The attitude of the car didn't really change at all! He said to me, 'Why doesn't Bernie get you a decent car?'

"Anyway, when we got back the engine was kaput, so we tested the other car, and that seemed OK. Then, just before the parade lap, we got in – and it wouldn't start! I said, 'We need another car', and they said, 'We haven't got one', so we ran into the car park behind the pit straight, and looked for a car with its ignition key left in. When we found one Carlos jumped in, brought it near to the podium area, and there we transferred all the medical equipment into it.

"They were almost ready to start, so he drove onto the track and reversed through the F1 cars so we could join the back of them – it was the only time I ever saw Carlos Reutemann smile! After the race we put the car back where we'd found it, and I'm sure the driver must've wondered what had happened to it. He never knew..."

> "You wouldn't imagine that the seat belts in an F1 car could stretch"

Then there was the time Niki Lauda chauffeured Watkins at Barcelona. "He said, 'I'll come just before the start', and it turned out that he'd never driven round the circuit before – nor had he driven this car, a special Mercedes estate.

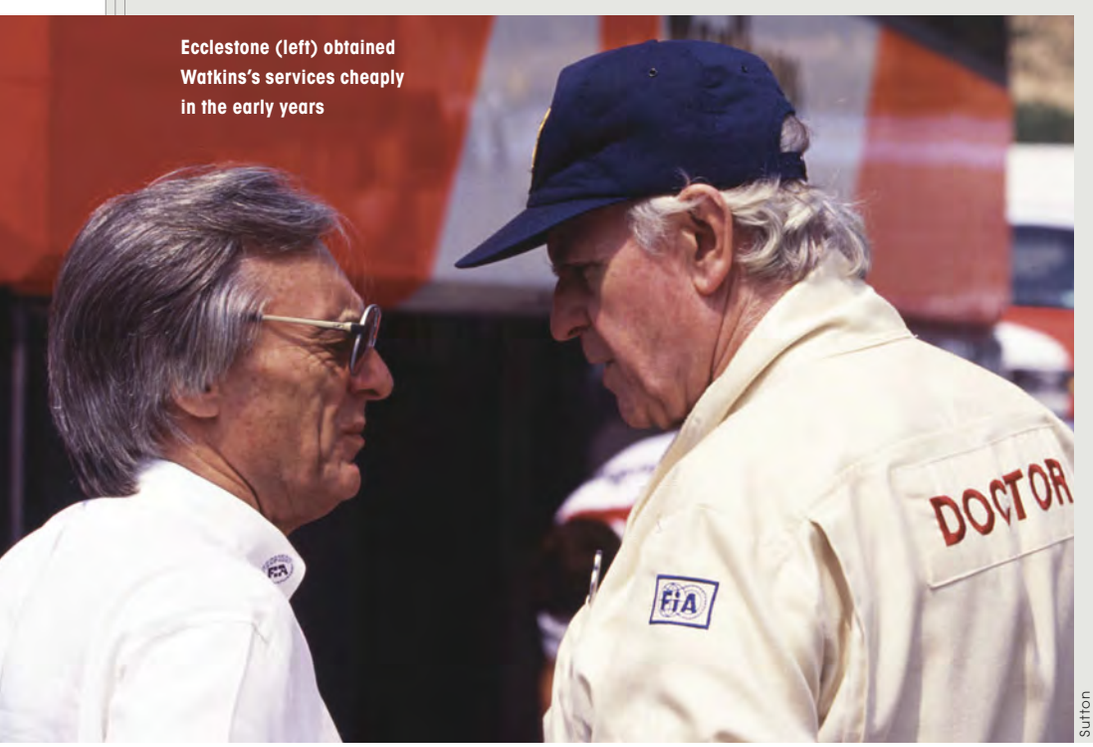
"He got one lap in, and then we went to the start of the parade lap, and he hadn't got a seat belt on – or a helmet. I said that he ought to put them on, and he said he wouldn't. Why not? 'Because I don't want to feel over-confident...' Amazing.

"Anyway, Niki drove – superbly – and then we sat at the pit exit. Soon he got bored, and said, 'Let's do another lap' – I had to reach across, and switch the ignition off!"

Another Watkins favourite was Frank Gardner. "Frank was marvellous – so quick, so controlled. I never had the slightest fear with him, and of course he had this tremendous sense of humour. After Mika Häkkinen's accident in Adelaide, he was asked to describe what had happened, and he said, 'Well, we arrived, and they punched a hole in the guy's throat, connected up some electrical cables, gave him a jump-start, and he looked as right as rain!'"

That accident of Häkkinen's, which occurred in qualifying, was the result of a sudden rear tyre deflation, and when the medical team got to him Mika was effectively dead. What happened next illustrated, perhaps more than at any other time, just how far medical procedures in F1 had advanced in recent years. Long afterwards I asked Häkkinen if ever he had had a hero in motor racing. "Only one," he said. "Sid..."

"When I got there," Watkins said, "it was very dramatic – Mika was blue in the face, because his respiration was restricted. You wouldn't imagine that the belts in an F1 car could stretch – but in fact they'd stretched so much under impact that Mika's head had hit the steering wheel »»



Ecclestone (left) obtained Watkins's services cheaply in the early years

Sutton

Nigel Roebuck

and the side of the cockpit. I said, 'Well, get him out', and they did that, and laid him down. I opened his mouth, and he was bleeding heavily into his throat. It was clear we couldn't get a tube down, so it was a matter of doing a tracheotomy right there. The anaesthetist with me immediately produced a mini-tracheotomy set – one of the things, fortunately, that I'd insisted should be available. When Mika began to pick up, I had a look at his pupils and thought, 'Well, he's going to survive' – but he wouldn't have done if we hadn't had that set-up.

"After Senna's accident, Max Mosley formed the FIA Expert Advisory Group. McLaren lent us a chassis, and we put a dummy in it, and crashed it in various directions at the MIRA test facility to get data about what was happening to the head and chest. In a lateral accident, the head and neck would go right over the side of the chassis, so for '96 we introduced the high cockpit sides – and every team except Ferrari complained to me about it! I'm always singularly unimpressed when people say a safety measure is expensive. One team principal indignantly said to me, 'You've just cost me a million pounds, to change the chassis', so I said, 'Well, knock it off your driver's salary – it's for him, not me...'"

These days all circuit medical centres must have an intensive care unit equipped to modern university hospital or major trauma centre standard. They must have emergency equipment too, to deal with such as bleeding from a major artery. Indeed, many now have full operating theatre capability to be used *in extremis*, and there are also X-ray departments, ultrasound, and so on, together with at least two intensive care beds.

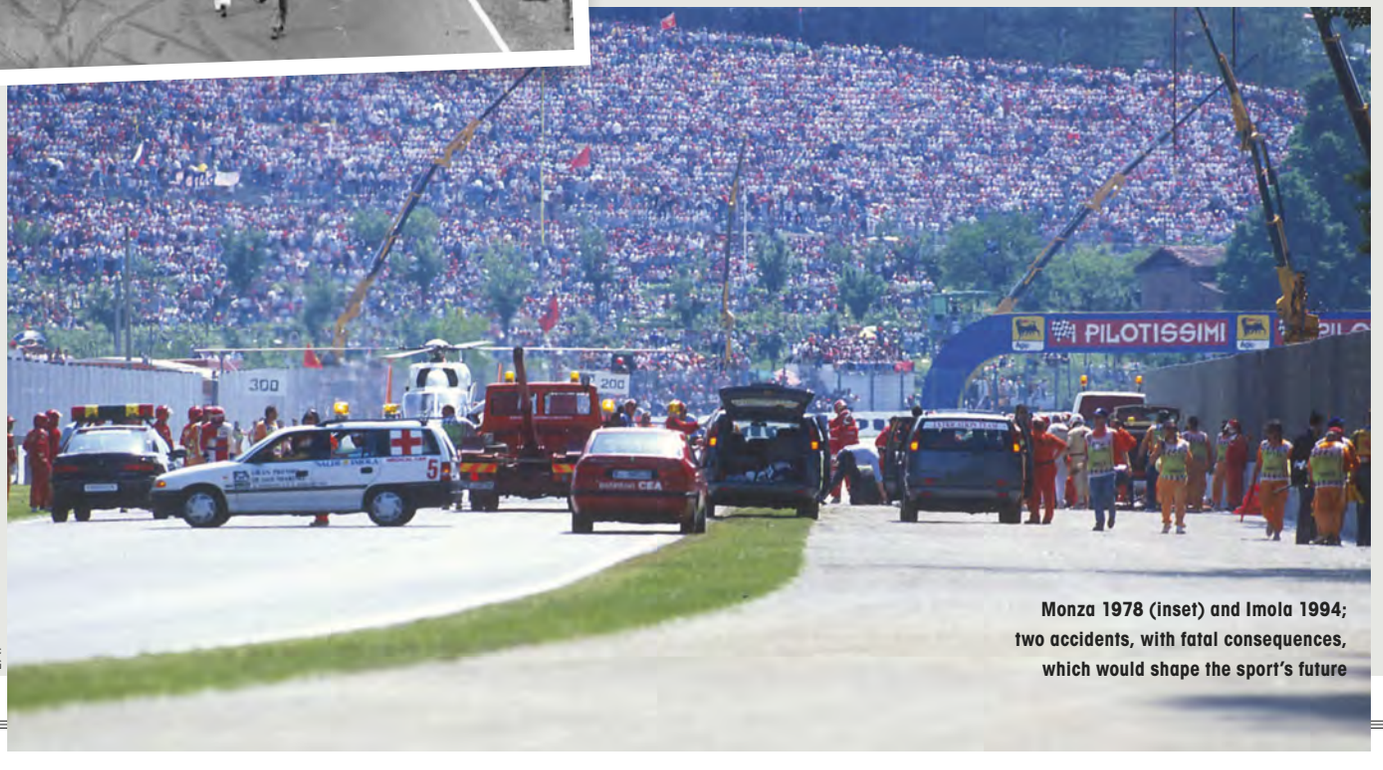
These centres are inspected on the Thursday afternoon, and each morning thereafter; and on Thursday, too, there is an extrication exercise, so that the local spinal rescue teams are conversant with the modern F1 car, and the way the 'extrication seat' is removed. Before any practice session or race, the facilities around the track are inspected, including intervention cars and ambulances, to make sure everything, and everybody, is prepared.

I remember thinking, after Sid had related the details of Häkkinen's rescue, of a tale told to me by an F3 star of the 1960s, about a race at a street circuit in Italy in which a driver broke his leg and was taken to the local hospital. Next morning his fellow drivers were stunned to learn that he was dead. "They screwed up with the anaesthetic," I was told. "Gave him too much – literally put him to sleep. In some places back then, quite seriously, we regarded the hospital as more dangerous than the bloody race track..."

It has been many times said – and rightly so – that every racing driver is in the debt of Jackie Stewart, who pioneered the safety crusade in the 1960s, but Sid Watkins's contribution has been immeasurable. I will always think him the greatest man I have known in motor racing. Ⓜ

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LAT

Monza 1978 (inset) and Imola 1994; two accidents, with fatal consequences, which would shape the sport's future

DISPATCHES



LAT

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MEXICO EXPECTS

SERGIO PEREZ IS THE TALK OF THE TOWN. PERHAPS NOT in Stevenage, from where a certain Mercedes-bound Formula 1 driver hails, but certainly in Guadalajara, Mexico. This young man's move to McLaren is major news back home.

Precious few Mexicans have excelled at the highest level, the most celebrated still being the Rodríguez brothers way back in the last century. But all that could be about to change.

Perhaps we should consult one of his countrymen on just what this means to a nation passionate about its racing, but bereft of stars. Nobody is better placed than former McLaren F1 team co-ordinator Jo Ramírez, who grew up with Riccardo and Pedro and who later followed them to Europe as a mechanic.

This season Jo has been helping Perez as he's plotted his route through the many pitfalls that face a new star in the pressures of the Grand Prix paddock. Before setting off to compete in the Carrera Panamericana road race back home, Jo gave me his thoughts on what this young man has achieved so far.

"It's fantastic, honestly, and really exciting," he says. "I am so proud of what he has done. It's been so long since Pedro was in F1 and we've always loved motor sport in Mexico, we love driving fast, but it's not a rich country and F1 is becoming more and more expensive. Now, thanks to Carlos Slim – the racing fraternity at home call him San Carlos – there has been money to support young Mexican drivers. Carlos is so enthusiastic and he wants to revive the love of the sport in Mexico – without him this could never have happened.

"So here we are, we have Sergio at McLaren, and to be honest, we knew he was quick, but we've all been surprised at how well he's done to get there so fast. And now Bernie (Ecclestone) seems keen to have a Mexican Grand Prix again, he loves that part of the world south of the border, and I think you will see more Mexican fans than Americans when we go to Austin this year. We have a circuit in Mexico City which, although there is work to do there, could be better than building a new circuit out in the countryside away from the city."

So how has Perez come so far so quickly? "Well, he was not the only one to receive support from Carlos Slim, but he was the only one to understand just how important that could be to him. There have been other quick youngsters but they were not so sensible, they did not properly follow the path they were offered. Sergio did well in karting in Mexico, then he left home and went to Europe when he was just 15 years old to race in Formula BMW. He was already supported by Carlos.

"OK, he may not yet be fully matured as a man, but I have seen his confidence as a driver growing all the time, and he knows what he wants from his engineers. The more he can race with people like Alonso and Hamilton, the more he will learn. Lewis is the fastest, but Fernando is for sure the most complete driver, and to be alongside him at Ferrari was maybe too much in his third year. Fernando is a political animal, he has built that team around him, even more so than Schumacher did, so Sergio would always have been number two, and that's no good for a racing driver. He can become demotivated by getting the call to let his team leader pass. McLaren is much better, it is more a family team, not nearly as cold or regimented as many people think."

Can Perez do for Mexico what Fittipaldi and Piquet did for the sport in Brazil? "I hope so," laughs Jo, "but let's wait and see. For now, his future is assured, but Sergio must avoid getting too big for his boots, he needs to keep his feet firmly on the ground. He still needs to improve his performance in qualifying. With McLaren and their resources he will do that."

Perez will be a man to watch once we get to Melbourne next year. The citizens of Guadalajara will have eyes for no one else.

ON TWO WHEELS



Bauer Media

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TWO-STROKE TERRORS

FORTY YEARS AGO A NEW WORLD CHAMPIONSHIP GAVE birth to a crazy kind of tyre-shredding, piston-melting motorcycle. The Formula 750 series was designed to give the latest 750 four-stroke road bikes somewhere to play, safe from the marauding two-stroke Grand Prix machines that had come to dominate all forms of bike racing.

F750 would allow Triumph to show off its booming three-cylinder Trident and it would give Honda a chance to race its new CB750. Just to be sure, GP two-strokes would be excluded by a requirement for a minimum production run of 200 engines.

But a four-stroke never won an F750 race. By the time the series started in 1973, a new kind of 750 two-stroke racer had taken the world by storm. Kawasaki's H2R, using the engine from the fiery H2 road bike, and Suzuki's TR750, powered by the GT750 'kettle' roadster, gave the four-strokes no chance at all. Where the Trident and CB750 were topped out at 150mph, the two-strokes would come streaking past 25mph faster.

They demanded a high price for their 100bhp performance. "They were absolute animals," says Paul Smart (above) who saw his life flash before him many a time on TR750s and H2s. "The handling was appalling and the reliability was abysmal. They used to shed bits and overheat because you had to use standard cylinder and crankcase castings, so everything was on the ragged edge."

"The huge Achilles heel riding those bloody things was that the tyres couldn't stand the huge increase in speed," adds Smart. "When we got to the American speedbowls the bikes were doing 175mph and the tyres would do two laps and fly to pieces. Suddenly you'd get this vibration and 'bang!' the tyre exploded. It drove you round the bend; you dreaded your next race."

The tyre engineers had to do something, and they did. "Dunlop worked day and night," says Smart. "Then one day they said they'd sorted the problem. They took me into a darkened room and there it was: a tyre with no f**king tread on it. They said you've got to believe us, this will work."

Accidents still happened. Smart's brother-in-law Barry Sheene was the most famous victim of that unholy trinity: an F750 bike, inadequate rubber and an American speedbowl. During testing for the 1975 Daytona 200 Sheene's rear tyre exploded, hurling him down the banking at 170mph. Sheene, who had won the first F750 prize in 1973, lost half the skin off his back and broke a femur, an arm, a few ribs and several vertebrae.

And then the bikes got even faster. While Suzuki and Kawasaki had steadily developed their three-cylinder road engines into world-dominating machines, Yamaha had a better idea. They read the rulebook and decided to build 200 F750 race bikes. The four-cylinder TZ750 (née 700) may have been designed specifically for the racetrack, but early models suggested otherwise.

"Oh boy, it was scary," says Steve Baker, who became America's first road racing world champion when he won the 1977 F750 title. "It would flex the frame so bad that at I-don't-know-how-many miles an hour it would get into a violent tank-slapper, and you couldn't stop it."

The TZ750 went on to become arguably the greatest race bike of all time, dominating F750 for years and ultimately contributing to the championship's demise at the end of 1979. The 140bhp weapon was so good that the series essentially became a one-make championship.

When 2011 MotoGP World Champion Casey Stoner recently announced his retirement he was asked if anything might tempt him back. "Yeah, 750 two-strokes" he replied.

Stoner – who likes to fight a bike – wasn't even born when F750 was alive, which proves the reputation of these awesome motorcycles. We will not see their like again, and I'm not sure if that's a good or a bad thing.

THE US SCENE



NASCAR

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THE DAY AFTER TOMORROW

SIX YEARS HAVE PASSED SINCE NASCAR INTRODUCED THE 'Car of Tomorrow'. The new car was safer and equalised the field a little more, but its spec nature robbed the cars of any brand identity. The CoT was received tepidly by the fans and a weak economy added to the problem so that crowds have fallen off in general in recent years and plunged precipitously at some tracks. Thus comes NASCAR's 2013 Sprint Cup car with all-new bodywork and much more brand identity.

"It's upon us," remarks Robin Pemberton, NASCAR's vice-president of competition. "Our objectives and our goals have been met as far as what we like to call our product relevance – the look of the car and how much it resembles the street versions of the various manufacturers. We're really pleased with that. We've been working on our package for aero and mechanical grip. We've done a lot of testing, a lot of simulation work and scale model work, and lots of wind tunnel work."

Andy Graves is Toyota's lead NASCAR engineer. "The whole process has been unlike anything I've ever seen in the sport," Graves declares. "Generally, when there are big initiatives from NASCAR they ask for information. They ask for bits and pieces from the manufacturers and the teams. From the start this process was heading in that same direction but the manufacturers got together and we approached NASCAR. We asked if we could have more say and we outlined our goals for the project.

"All four of the manufacturers have had to accept it's give and take for what's best for the series to lay a foundation for the future. We're proud to be a part of the process because I truly believe it's going to define a new era in NASCAR."

Pat di Marco is Ford's NASCAR programme manager. "It was a foreign concept to all of us to sit in a room and collectively work towards a common goal," he says about the process of laying out the 2013 car. "We all wanted to move towards more brand identity, but at the beginning we all kept everything close to our chests. It wasn't all hunky-dory. We weren't all on the same page on everything that we were trying to accomplish. But we all made compromises and decisions that would help the overall good of the sport.

"I don't want to paint it that everybody was shaking hands and slapping each other on the back after every meeting. There were tense moments. But for the greater good of how the cars looked and worked on the race track I think we all played well together."

NASCAR has also decided to try to reduce the dependence on aerodynamic downforce by cutting the size of spoilers and splitters for next year and inviting Goodyear to work on some tyre development with different rear cambers in an effort to achieve more mechanical grip from the 2013 car.

"We want to take a little bit of aero off and add some mechanical grip so the driver still has a pretty good feel for the race car," says Pemberton. "We're working on getting some weight out of the cars, which should help the tyres, and we're working on lessening the dependence on aero as well as trying to maximise the grip of the car with cambers and things like that."

NASCAR's team will build hundreds of new cars over the winter, averaging 20 cars per driver, and Andy Graves believes sorting out the 2013 car will provide the teams and drivers with plenty of challenging work. "It's a little complex because it's not just the new body style," Graves says. "There's also a radical new rules package to increase mechanical grip and decrease the aero dependency. We're getting ready for probably the biggest technical change that I've ever witnessed in the sport.

"It's going to be a big challenge to work on if this is what NASCAR settles the rules package on. From the engineer's point of view it's a fantastic challenge to try to get an advantage. It's definitely going to be very interesting."

Letters

McLaren's caring culture

Sir,

I read with interest your interview with Ron Dennis. My wife was his PA from 1987 to 2003 (he only needed one back then). Being an F1 fan I hoped to get the gossip but I may as well have been married to someone at Bletchley Park.

What was apparent was how much Ron cared for his employees. Any problem was addressed with Ron's laser-like analysis. Medical issues were resolved with the help of Prof Sid Watkins, and although Ron never suffered fools gladly the degree of loyalty amongst those at McLaren was absolute.

He demands much from those who work for him and it was not unusual for my wife to be summoned in at odd hours to transcribe driver agreements and to get calls from circuits around the world to resolve issues.

We now farm and I well remember the call from Ron blaming me for taking away his PA, but he wished us luck as well.

Ross Herbert, Linley Green, Herefordshire

Remembering 'Prof

Sir,

This photo is a treasured memory from the Portugal GP in 1992.



I first had dealings with Prof in early 1980 when I was at Motor Race Consultants. I did something dreadful to my back trying to pick up a fridge and was on the 'phone telling someone my woes when Derek Daly was passing the office. He told me about this marvellous chap who was helping everyone in F1 and he'd be more than happy to give the Prof a call on my behalf. I crawled to the London Hospital where Sid rushed me to the top of the queue and told me that I'd ripped the muscles along the base of my back. He gave me an extremely painful injection, joking all the way. For the next three weeks I lay on my front on the office floor answering the 'phone, but within two months I was fine. I'll always be grateful to him and we had many funny conversations whenever I saw him subsequently.

In 1996 I was waiting outside the 'Stalag Luft' chicken-wire F1 paddock for him to come out and sign *Life at the Limit* for me. He came rushing out, but made time to sign with a message. Suddenly we realised he was bleeding all over the page. He jokingly cursed "must have cut it on Bernie's b----y barrier – so you've now got a sample of my blood!"

Such a big loss.

Sue Weaver, Sheen, London

Racing's debt to Watkins

Sir,

Professor Watkins influenced the development of F1 more than anyone save Enzo Ferrari and Bernie Ecclestone. He has taken far less out of the sport than either Enzo or Bernie. On top of this sit his achievements in the field of medicine and the debt of gratitude owed by the countless people whose lives he saved. A truly great man has passed; the least we can do is to remember him with a special place in the Hall of Fame.

Mark Bowley, Coalville, Leics

Trophy tourists

Sir,

Nigel Roebuck revealed that back in the 1970s Niki Lauda traded one of his Formula 1 trophies for a year's free car washes at his local garage, much to the horror of Mario Andretti. I can't remember the exact year, but my wife and I stayed at a charming village inn at Hof bei Salzburg in Austria on our way to the Brenner Pass and down into Italy. Our car needed petrol so I drove to the village garage to fill up, and on the way to the office to pay I noticed the showroom windows were full of large Formula 1 racing cups and trophies, so I asked the lady in the shop how she had acquired them. "Oh," she said, "Niki Lauda didn't want them so he gave them to us." She then took me through to the back and pointed out the large house on the other side of a golf course where Niki Lauda lived. I am now 94 but have never forgotten it.

Some years later while on holiday in Devon we went to the Nigel Mansell Museum and were taken on a conducted tour by Nigel in person. There were some interesting cars but what really impressed were three or four large rooms crammed with Nigel's memorabilia. Everything from his interesting life was on display including his truncheon and whistle from when he was a Special Constable on the Isle of Man. Nigel showed us an enormous glass trophy he won in Hungary; he dropped the original at the presentation and saw it shatter into a thousand pieces, but the organisers had a replica made and this was what we were looking at, so all was well. Nigel was obviously so proud of all he had won.

I side with Lewis Hamilton. The driver should keep the originals.

Trevor Gillard, Bishops Stortford, Herts

LETTERS TO THE EDITOR

Write to: Motor Sport, 38 Chelsea Wharf,
15 Lots Road, London SW10 0QJ
or e-mail: editorial@motorsportmagazine.co.uk

(Please include your full name and postal area)

Silver service

Sir,

Firstly, my congratulations on your coverage of the Goodwood Revival, with superb accompanying photographs.

While thanking you for your kind words regarding the Silver Arrows pits, I would appreciate the opportunity to amend one point. My small company, The Period Garage, is but one of the specialist contributors involved and can claim no praise for the March Motor Works. That is entirely due to the excellent work of Nigel Wright in building it and Stewart Imber for set-dressing it. However I think I can speak for all when I say it is a privilege to contribute to, and be involved in, such a fabulous event.

Peter Russell, Pulborough, West Sussex

Lacking occasion

Sir,

I made my third visit to the Goodwood Revival on the Saturday of this year's event. I had not planned to attend this year with disposable income being less plentiful these days, but the announcement of the Silver Arrows 'demo race' changed all that. I booked my tickets forthwith and began re-reading Chris Nixon's excellent *Racing the Silver Arrows* in anticipation.

Walking into the paddock I was greeted by the stunning recreation of the Bremgarten pits, with the pristine cars glinting in the sunlight. Having spent the preceding weeks reading about the exploits of Caracciola, Rosemeyer, *et al*, it seemed incredible to be witnessing this at first hand, and a little overwhelming!

Letters

So far so great, and I looked forward to the on-track action later in the day. Unfortunately, I found this lacked the same sense of occasion that the build-up had pointed to. When I read about a 'demo race', I was expecting something more than the usual high quality demonstration we've become accustomed to at the Revival. I was not anticipating anything remotely approaching a race. I did think there might be a rolling start, however, to get the cars running in a bigger group and go some way, if only for a couple of laps, to achieving the amazing spectacle crowds witnessed back in the 1930s.

It does seem perverse to be writing negatively about what I believe to have been the biggest gathering of these cars since their heyday, but this is my point; all the elements were in place on this one weekend to make the 'demo race' truly spectacular, and it became 'merely' another demonstration. This is why it frustrates, as I don't see the opportunity arising again for a long time. Was I expecting too much?

Jonathan Wesley, Kettering, Northants

Goodwood's rallying call

Sir,

Twelve of us ex-Safari Rally competitors aged between 63 and 84, all passionate motor sport fans, attended our ninth Goodwood Revival this year and we unanimously agreed that the skill and courage of the following drivers made our trip really special:

Patrick Blakeney-Edwards, whose driving of the ill-handling Frazer-Nash 'The Owlett' was sublime and put the car so much further up the results than anyone could expect. Troy Corser, whose riding of the 1937 BMW R5SS was a joy to watch and put him ahead of Norton Manxes and other exotics; never has that happened before. Jackie Oliver, whose total commitment made the BMW 700 do things that only happen if the driver has unbelievable car control. Grant Williams, voted every year as our driver of the day. To watch his Jaguar MKI sideways makes us come back every year.

To all the above, thank you. Your fully committed driving and riding touched our hearts and gives us memories for life.

Mike Kirkland, Mombasa, Kenya

On podium fidgeting

Sir,

The GB Olympians and Paralympians seemed capable of standing still for 40 seconds during the National Anthem; why is it not possible for British Grand Prix drivers to manage to do the same without gesticulating to their colleagues and straightening their hair, etc?

James Thacker, Tanworth-in-Arden, Warks

The cost of attendance

Sir,

Like Nigel Roebuck, I was at the 1955 Oulton Park Gold Cup meeting with my parents. Nigel mentioned the costs of attending meetings; things have changed somewhat. The Gold Cup cost 4/6d (22.5p) and to go into the paddock it was 20/- (£1). Compare that with today's Formula 1 races!



By 1959 the entrance price had risen to 5/- (25p) but the paddock had dropped to 10/- (50p). However, the 1955 Grand Prix at Aintree was a vast 10/- (50p) including a seat – albeit on top of the Tatts Stand from which you could see virtually all of the circuit.

For your 10/- you got a 270-mile race of over three hours, a 51-mile 500cc race and a sports car race of 51 miles with the works teams from Aston Martin and Jaguar taking part. The prize money for the Grand Prix was £1200, and that included £25 for the chief mechanic of the winning car.

Michael Cookson, Winsford, Cheshire

Filching facts

Sir,

I was delighted to read Gordon Cruickshank's excellent article about the Filching museum, having only recently learned of its existence via the presence of the K3 Bluebird at the Goodwood Revival.

There was one minor error in the article: he repeated the old canard that the R-type engine used in K3 Bluebird led to the development of the Merlin. In fact it came from a different branch of the R-R aero engine family and went on, after re-engineering, to become the Griffon. As this powered many of the later marks of Spitfire, the confusion is understandable. The R-type was a highly modified development of the Buzzard, originally developed for the later Schneider trophy planes. Thus it became probably the most successful 'speed record' engine, powering record holders in the air, on land and on water.

Mike Higton, Chobham, Surrey

KEEP IN TOUCH

The *Motor Sport* website is *the* place to discuss motor racing past, present and future. Don't miss the opportunity to comment on blogs, video and audio podcasts, and read Nigel Roebuck's newsletter and the editor's monthly letter. To get involved in the discussion simply log on to **www.motorsportmagazine.com** and tell our writers exactly what you think!
Also, don't forget that if you have any images which would be suitable for our You Were There feature in the magazine, please send them to the office (address on p42).

Surprise package

Sir,

I opened the August issue of *Motor Sport* with my usual sense of anticipation, which dropped drastically when I saw a feature headed *British F1 World Champions*. I thought 'seen it all before'.

Was I wrong! What a fantastic and completely fresh look at our old and present heroes from such a fascinating variety of viewpoints. Absolutely spell-binding.

Sorry for doubting you – as always the mag was better than perfect and remains something I look for with real excitement on the shelves here in Johannesburg every month.

Sometimes getting a copy means a full hour's drive each way, but it is always worth it.

Mark Hey, Johannesburg, South Africa

Boddy of work

Sir,

It was with great interest I read the article on the late Bill Boddy's archive. Surely the time has arrived for the definitive biography to be written on him together with Denis Jenkinson.

Your contributors must have a wealth of stories on these pillars of motoring journalism. Published together with some of their articles, it would be a lasting tribute to their lives and work that could be shared with all of us who have admired their writings over the years.

Rich Goldthorpe, Kingston-upon-Hull

YOUR HOT TOPICS



SCHUMACHER'S RETIREMENT JASON: I don't think professional sportsmen should retire out of pressure. I can think of great footballers and golfers who carry on because they love the sport and I think Schumacher has that same drive (pardon the pun). MIKEY: **Schumacher's return in 2010 probably shouldn't have happened and full-time retirement was, and is, the best option. However, nostalgia makes me want to see him win one more time.** MICHAEL KAVANAGH: Yet another case of a successful sportsman not knowing when time's up. I give you George Best playing for Dunstable Town as but one example of this depressing attitude… ALEX MILLIGAN: **Please, please retire and create a vacancy for a new upcoming fresh talent.**

WEB SPIN

What we're all talking about @ www.motorsportmagazine.com



PODCAST EXTRACT

TIFF NEEDELL: One of the worst stories about hanging around trying to get drives was when I went to Daytona. I went to the Daytona 24 Hours to try and pick up an IMSA drive. I used to stay in my mate James Weaver's room and I remember looking for Bob Tullius, the Jaguar team manager. I still remember this to this day that the toilets in America, in the early 1980s, the gentlemen's sit-downs, didn't have doors. Anyway, you used to stand on the edge of the paddock waiting for a team manager to walk by and you'd do the 'oh, hello' and just bump into them. There was Tullius sitting on the toilet and I very nearly went up and asked to talk to him!

DAMIEN SMITH: Well, he wasn't going to go anywhere was he?

TN: Maybe Perry McCarthy would have still gone straight in and started chatting? Maybe that was my opportunity – I never did talk to Tullius about driving for Group 44!"

TOP TWEETS

@LewisHamilton Just noticed @jensonbutton unfollowed me, that's a shame. After 3 years as team-mates I thought we respected one another but clearly he doesn't.

@LewisHamilton My bad, just found out Jenson never followed me. Don't blame him! Need to be on Twitter more!

@alex_wurz @jensonbutton follows me on twitter, and I am not even his team-mate…

@olivergavin This morning Bernie will have a massive smile on his face. Hope that @pauldirestaf1 gets a shot at Ferrari. #F1MerryGoRound #LewisMovingOn

@Andrew_Frankel Going to be interesting end to Lewis's season. How hard will McLaren try to put a No 1 on a Merc next year?

@Damien__Smith So Schuey's off (again). Time to go with a bang, not a whimper, I think.

@Ed__Foster Never thought I'd say this, but I'm quite sad #Schumacher isn't going to Sauber. He's quite good at crashing around in midfield.

@Damien__Smith Aside from Lewis, interesting to note Loeb only doing a part-season of WRC in 2013. Opens him up for other things – like Le Mans, perhaps?

@Ed__Foster Sad that Loeb winning ninth title is being talked about less than Hamilton tweeting about Button.

@matoxley For once, I'm being positive & hoping it's all for the good (Dorna running both WSB and MotoGP). Maybe one day they'll end up selling WSB/MGP to Walmart.

@dariofranchitti Rest in peace prof Sid Watkins. Every driver in every type of racing round the world owes you a huge debt of gratitude.

@dariofranchitti Where to start? First congrats to @ryanhunterreay and all the guys @followandretti, nice work! Feel really bad for @12WillPower (Will Power) though...

ONLINE WITH OUR WRITERS

NIGEL ROEBUCK
A very expensive parade

"In terms of pure racing, street circuits tend to be a dead loss (although Long Beach certainly had its moments during the F1 years). What I like about street circuits – and find infinitely more appealing than the Tilkedromes – is that mistakes get punished: if a driver screws up, that's his day done."

ROB WIDDOWS
Turnover at the top

"With 12 teams entered there are 24 Grand Prix drivers in the world at any one time. Then there is the matter of experience. Teams running cars worth tens of millions of pounds like a bit of that. They're not so keen on a lad who goes fast but crashes the car into solid objects."

MAT OXLEY
If I was king of MotoGP…

"Former BSB champ and team owner Rob McElnea summed up the sport's direction for me when he said 'we spend a fortune on tuning the bikes for more power, and then we spend a fortune on electronics to calm them down'. Hard to argue with that…"



ANDREW FRANKEL
What will Michael Schumacher do now?

"However much I'd like to see him return to Le Mans (how many remember his small claim to fame of fastest lap in 1991 *en route* to 5th overall in a Mercedes C11?), I can't see it happening. Nor can I see him doing IndyCar, DTM, WRC, MotoGP or the European Tiddlywinks Championship."

PAUL FEARNLEY
Rating Hamilton's move from McLaren

"The fact that Mercedes-Benz, with a somewhat severe and stolid image, can be seen by Hamilton as freer tells you all you need to know about why fastidious McLaren is not every driver's trophy full of champagne. That nurturing arm around the shoulder can become a bit 'creepy uncle'."

ED FOSTER
The new Bentley GT3

"The question on everyone's lips is whether or not the heavy – and seemingly un-aerodynamic – Continental will make a successful racer. The company has said that it has managed to lose plenty of weight from the 2320kg road version, though, so initial signs are that things are looking good."

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The greatest racing car designer of his generation was curious: how would it feel to step away from the drawing board and be let loose in two of his own creations spanning 20 years of Formula 1 evolution? When Adrian Newey asked, we were thrilled to oblige

BY DAMIEN SMITH

Driven by design

Matthew Howell





Drawn to drive: Newey heads out in RB6. Right: DC looks on as Adrian gets comfy in CG901

Early September, a couple of days after the Belgian Grand Prix and a few before the Italian at Monza. Christian Horner has just walked into the Silverstone garage, still sporting a healthy tan from Formula 1's four-week August break, and yet somehow he's milkier in pallor than we've ever seen him. The engineers and mechanics look on edge, too. Red Bull Racing is used to handling the odd bit of pressure, but this is something different. The team's most valuable asset – perhaps the most coveted in all of Grand Prix racing – is about to head out on track, putting himself at mortal risk behind the wheel of not one, but two of his own perfectly sculpted, frighteningly rapid, creations.

Adrian Newey is an F1 visionary, the most gifted and influential race car designer of the past 30 years, and the only man to draw, by hand, World Championship winners for three different teams. What he's not is a racing driver, at least in F1 terms. Sure, he's quite handy driving historics, as he'll show later in the month at the Goodwood Revival where he'll win the TT Celebration for a second time, with Martin Brundle in a Jag E. But in F1 cars, his experience amounts to… not very much. At all. "If I hurt him today, Christian's going to have my kids' fingers," mutters ashen-faced test team manager Tony Burrows.

We sympathise with Tony's concern. Truly, we do. But after the best part of three years talking about it, we're just relieved it's actually happening. As back-to-back tests go, this is special: two Grand Prix cars, conveniently separated by exactly 20 years, pedalled by a man burning with curiosity to discover exactly how it feels to drive what he drew. Here are the poles of two decades of F1 evolution.

In the 'Miami Blue' corner (or turquoise to you and me), the beautiful little Leyton House CG901, the final car of what in hindsight could be described as Adrian's three-year audition for greater Grand Prix glory. And next to it, in royal blue, the outlandish and plain-ugly-in-comparison Red Bull RB6, the car that secured Newey's unique place in history and made Sebastian Vettel the sport's youngest World Champion in 2010.

Newey takes no time at all to get to grips with the Leyton House, a car of which he remains ferociously proud. Ex-Red Bull driver and now BBC man David Coulthard tracks him in RB6 during the short run in CG901, complimenting Adrian on his commitment. Now Newey has pushed 'fast-forward' 20 years and is nestling into the Red Bull. His further commitment in the modern car will leave his friend and team principal Horner praying for it all to be over. He desperately wants his design genius back in one piece. »»



"With Red Bull I felt I'd come full circle. It felt like unfinished business from Leyton House"

"I'd spent four years in IndyCar and [March co-founder] Robin Herd said, 'right, we're now ready to do an F1 car'," says Newey as he recalls how the adventure began. Japanese businessman Akira Akagi had forged a partnership to take racing car constructor March back into the Big Time. But the team would run under the puzzling guise of Leyton House, Akagi's lifestyle marketing exercise – based bizarrely on a colour. It wasn't just the name that was unconventional. But with youthful 'secret weapon' Newey and the promising Ivan Capelli in the hotseat, Leyton House was about to play a great F1 cameo, with lasting consequences for the sport.

"In those days F1 was a split formula," says Adrian. "All the top teams had turbo engines and at the back end of the grid they were 3.5-litre normally aspirated, down on power by about 150hp. At the time the turbo cars were really quite clumsy. People had become lazy in their design – they had so much power that to find more downforce they would just bolt on ever-bigger wings. It was all about containing that power.

"With our 650hp Judd V8 we had to find the speed elsewhere, from aerodynamic efficiency. So we designed it very much from an aero perspective, making small compromises in the mechanical packaging to achieve this. And in that way these are the cars that personally I'm most proud of. I think it's fair to say the approach changed the design direction of F1."

> "It's fair to say these cars changed the design direction of Formula 1"

In 1988, the year of McLaren-Honda near-total domination, Capelli played the plucky underdog, even passing the mighty Ayrton Senna at Estoril, and briefly leading at Suzuka. Remarkably, the 881 outscored the Williams FW12 over the course of the season to be best of the Judd-powered cars, and it also broke new ground, pre-dating Harvey Postlethwaite's high-nosed Tyrrell 019 by two full years. "The things we did with it, in terms of raising the underside of the chassis to treat the front wing, the nose and the chassis as one aerodynamic device, sculpting the front wing endplates, putting a lot of effort into the diffuser and packaging the car as small and tight as we could, it was all something that spread through the field," notes Newey.

But the following year, the good work began to unravel. Over-ambition, a lack of frontline F1 experience, Akagi's failing financial security and intra-team politics – it would all erode the early promise. The CG891, its initials added in memory of Capelli's close friend and key Leyton House cog Cesare Gariboldi who'd died in a road accident, failed to live up to expectations. And its 1990 successor, based on the same chassis with new aero, looked to be a flop, too. But a mid-season discovery would change everything, bringing a new meaning to 'fast food', as engineer Andy Brown explains on page 60. From the French GP in July 1990, the CG901 became a contender, Capelli leading 45 laps at Paul Ricard having failed to even qualify for the preceding Mexican GP. But it was all too late for Newey. Adrian had already quit the team and would start his new job at Williams the Monday after the British GP.

"I'd been in at Leyton House pretty much from the start and although we made mistakes I thought as a team we were moving forwards," he says. "Had Leyton House continued to have proper funding we could have done a decent job, perhaps – who knows – start to win races. But Akagi was clearly in financial trouble and it was pretty obvious which way it was going, which is why I left when I did. And frankly I'd had a big fall-out with the accountant [Simon Keeble] who Akagi had appointed to run the



"These are the cars I'm most proud of." Newey brought 'high nose' concept into F1 with Leyton House designs

team, and with whom I got on very badly. You can't appoint an accountant to run a race team. It's never going to work."

Akagi would later be arrested for fraud and the team, back under its March moniker, would fold on the eve of the 1993 season – by which time Newey was being hailed as the new genius of F1.

"The first two times I drove on track were both in F1 cars," says Adrian with a smile. "The first time was an 881 at Vallelunga where we were testing towards the end of the year. Both drivers [Capelli and Mauricio Gugelmin] found the cockpit cramped, which I've had a lot of stick for since! Ivan said, 'you drive it and see what you think'. So I did. I did the outlap, got as far as the final hairpin – and spun coming out. So that was my circuit debut.

"My second time was in a Williams at the end of 1993 where the team organised a day for journalists to drive at Paul Ricard, and Patrick [Head] thought it would be a good idea if he, I and Bernard Dudot from Renault had a play. Unfortunately, it was chucking it down so it was a bit daunting.

"So this is my third time in an F1 car if you discount the Goodwood hillclimb, which is not the same thing. And in preparation for this, I have to admit the guys at work – and Christian primarily – thought it would be a good idea if I tried a single-seater before being let loose in an F1 car. So I went up to Snetterton last week and jumped into one of Jonathan Palmer's F2 cars. My head was hanging off after about 15 laps, just from not being used to driving cars with a significant amount of downforce."

Newey's short on experience, but not in confidence. He looks at home in the car almost immediately, and as you can see from our pictures, his confidence was inspired by its immaculate preparation, thanks to owner Patrick Morgan and his Dawn Treader Performance team. At the Festival of Speed this year, former F3 racer Gary Ward set the fastest time of the weekend in this car. Both Adrian and Coulthard, who also enjoys a few laps during our session, relish the chance to backtrack to a 'purer' time when racing cars were made in the right proportions, and weren't littered with the turning vanes and aero flaps Newey himself must specialise in today.

"It actually felt very comfortable, funnily enough, considering I haven't driven a car



like that," says Adrian. "Good visibility all round thanks to the low cockpit, which from a safety point of view you could say left the drivers quite exposed. A very tractable engine, and the physical act of driving the car is simple. Obviously it's Patrick's car and I didn't want to take any chances with it, but it felt beautifully balanced: direct steering, good brakes and very little buffeting, which was surprising because I'd had a lot in the F2 car. It just felt like an old glove, which is peculiar given that I'd never driven it before."

We were just relieved he'd been able to squeeze into the v-shaped cockpit, given how infamous his Leyton House designs were for their shrink-wrapped proportions. It helps that Newey shows no visible sign of having any hips. "Yes, Ivan and Mauricio did complain about cramped cockpits and the difficulty in changing gear, which we made a lot better on the 891 and the 901," he admits. Patrick points at a blister bubble on the right flank – a rare aero concession to the drivers and the skin on their knuckles when changing gear. Newey smiles. "For me at my size there was enough cockpit space. I don't know what they were all moaning about!"



Mauricio Gugelmin provided defining image of Leyton House with this flip at 1989 French GP. Helmet still bears the scar (above)

The C901 never won a race, but its importance to Newey and F1 as a whole is obvious if it is compared to the Williams FW14 of 1991.

"Certainly from Leyton House to Williams, it was very much the same aerodynamic philosophy," says Adrian. "As I joined Williams in July 1990, I had a relatively short time to get on with designing the following year's car. Basically I brought with me the knowledge in my head – not the drawings – of what would have been the Leyton House 911 had I stayed there." Note the important clarification within that sentence.

"Obviously, Williams had much bigger resources compared to Leyton House, and all the experience, particularly on the mechanical side. But I think it's fair to say that aerodynamically what we were doing at Leyton House was much more advanced than what they were doing at Williams at the time. So if you sit an FW14 beside a 901 you'll see more than a passing resemblance."

With the 'active' FW14B of 1992, Newey claimed his first World Championship, with beefy Nigel Mansell strong-arming his way to a dominant drivers' title. But in defiance of popular belief, Newey believes Williams didn't use the best active ride system that was available. Again, his experience at Leyton House told him differently.

"Our R&D man Max Nightingale began work on a system in '89," he says. "Of course Lotus and Williams had done their active systems very differently. Full active on the Lotus, and a sort of cobbled-up AP system at Williams. At Leyton House we worked on a platform control system, which is purely aimed at trying to control ride-height through speed and downforce variation as opposed to trying to deal with road inputs, and left conventional springs and dampers to deal with those. I believed that was the way forward. Small as we were, we were probably over-ambitious to start an active system. Ironically, it was the system that McLaren went on to use in 1993.

"It was the first research I'd done into active ride, but we continued with the AP-based 'three-legged' system at Williams for the 1992 car, which I don't think was as good as the platform control system. It basically had two front springs and a single rear spring. And then the bump side of the single rear actuator was connected to the rebound side of the front actuator, and that's what gave you the roll stiffness.

"It provided what we wanted in terms of compensating for downforce, but in the process of hydraulic tripod linkage you compromise the ride a bit, and that was what used to give Riccardo [Patrese] in particular some problems.

"The McLaren system which we'd used on the Leyton House was very simple. You put an actuator under the spring platform, and compensated the spring and tyre squash by extending the actuator. It was the better system. Had active not been banned at the end of 1993 Williams would have ditched the three-legged principle to go to a platform control ▶▶▶



LAT

system, but with the actuators on the pushrod instead of under the spring perch."

Newey's enthusiasm for the 'active era' is obvious. How frustrating was the ban on such devices at the end of 1993? "Very," he says. "It's a shame because I think it was a great time, that electronic era, and it wasn't just active suspension. By the end of '93 we had four-channel ABS, electronic power steering, traction control, active ride and we had built and run the CVT, which was effectively a DAF Variomatic transmission system. We actually ran it here at Silverstone, it did a few laps. It sounded very weird to hear an engine at near-constant rpm. But that was banned too. Unfortunately it was a case of 'Ferrari International Aid'. Ferrari and the FIA got together, and it was the usual Ferrari *modus operandi*: if they couldn't get something to work they got it banned. They couldn't get active to work, they certainly wouldn't have got CVT to work in a short space of time. So as a consequence the whole thing got closed down."



What he says next on the 'passive' FW16 of 1994 is fascinating, in the context of May 1 and the death of Ayrton Senna. The electronics ban hit Williams particularly hard, he says. "It was a big step back for us. We'd been on 'active' for two years, at least one year longer than our rivals. We had of course developed the aerodynamics around it, so when we went back we were a bit slow, in truth, to appreciate the problems of having a platform that was moving around a lot more. So the FW16 was aerodynamically unstable, frankly. The sidepods were too long, it would get into this huge floor-stall, and there was no way out of it. If you ran the car high you could avoid the floor-stall, but you lost downforce. If you ran it low it was unstable. It was a bit of pig at the start of the season, and it wasn't until we shortened the sidepods at Magny-Cours [in July] that we really got it sorted."

> "There was a huge amount of politics at McLaren, a lot of posturing"

In 1997, as Jacques Villeneuve headed towards Williams's fourth Newey-inspired drivers' World Championship in six years, Adrian quit the team for a fresh start at McLaren. When his elegant MP4-13 won the opening race of the new narrow-track era in '98, the transition from one team to another appeared to be as seamless as the gearshift technology that would be a feature of his McLarens.

"The transition certainly wasn't easy," he counters. "To work at McLaren compared to Williams felt very different. Williams is very much Frank and Patrick's hobby shop, which could be frustrating at times. But it had that sort of homely feel to it, and Patrick was very good to me in the freedom he gave me. McLaren is a little more IBM-like. Not that I've worked at IBM, but it feels like a big company that has methods and standards, and this is how you must operate.

"I joined on August 1, 1997 so it was a really tight design schedule for the new car. Through August to October I worked 12 hours a day, seven days a week to catch up. The big regulation change was a chance to do something different, which was definitely an advantage. Had I joined with stable regulations for the following year it would have been much more difficult."

His struggles with life under Ron Dennis are well documented. In 2001 he came close to leaving McLaren to join his old friend Bobby Rahal at Jaguar – which would of course eventually become Red Bull – only to pull out late in the day (see p62). "In truth, I stayed at McLaren a couple of years too long," he says. "The 2002 car was decent, but David [Coulthard] only won a single race in it, and it wasn't a championship winner. I made the judgement mistake of trying to be aggressive with the 2003 car, and that was the MP4-18 that never raced. But there was a lot going on at that time…"

Patrick Morgan, who worked for Ilmor, the company that builds Mercedes' F1 engines, interjects: "I remember we had 16 different specs of crankshaft at that time, and we were doing a rotary-valve engine that never raced and was banned before it made it into a car. Then there was the 'M' engine to support the MP4-17 which was raced in 2002 and '03, and the 'P' which was your low centre of gravity engine for which we drew up that weird connecting rod for you. And then there was the development of the twin-clutch going on at the same time, plus the carbon gearbox…

"Yeah, it was too much," says Newey. "And the 18 was the result. It was over-ambitious. Ferrari had come up with a great 2002 car [it won all but two of the 17 races], I felt we needed to make a big step, and we made mistakes. Aerodynamically it was unstable for a reason that didn't show up in the tunnel but showed up quickly on track. Kimi [Räikkönen] had a massive accident in the last turn at Barcelona, just through the car being aerodynamically unstable at low ride-height. We realised what the problem was and we canned the car.

"Towards the end of that year I wanted to do a new car to get on top of those problems, but Martin Whitmarsh and some of the other engineers believed the car that didn't race could be made quicker by putting the twin-clutch gearbox on it and so on. Frankly, I got over-ruled and I should have left then. There was a huge amount of politics at McLaren and a lot of posturing. At that point we raced what became MP4-19, but was in fact the 18 with a different badge on it, and of course it wasn't a very good car. But the 19B, which made its debut mid-season and won at Spa, that was a big step forward, a decent car. Had we had it from the start of the year we might have been able to challenge for the championship. But it all left a bad taste."

The 2005 McLaren would be Newey's last at the team, and again Newey offered innovation in the so-called 'zero-keel' suspension configuration. Despite 10 wins shared between Räikkönen and Juan Pablo Montoya, another title to add to those claimed with Mika Häkkinen (with Newey, left) in '98 and '99 slipped away. It was time for a new challenge.

"With Red Bull I felt I'd come full circle," says Newey. "The attraction was it felt like unfinished business from Leyton House. Here I had a chance to join a team more or less from its start, develop with it and get to the point where we could perhaps win races."

Newey, famously, still works at his drawing board, just as he did at McLaren, at Williams, at Leyton House and March, at Fittipaldi and at Southampton University from where he graduated in 1980.

"I'm too much of a dinosaur," he smiles. "Really since the March days, including the Indycars, I've always started the layout of a car by considering the aerodynamics first and then trying to fit the mechanicals around it. I've never quite understood how people operate differently. I guess things are changing now because the regulations are so tight and restrictive that to some extent the car does lay itself out for you. But I've never really understood how you can have a mechanical department that doesn't work in a very integrated way with the aerodynamic department. And you see it.



1988 LEYTON HOUSE MARCH 881 JUDD



1989 LEYTON HOUSE CG891 JUDD



1990 LEYTON HOUSE CG901 JUDD



1991 WILLIAMS FW14 RENAULT



1992 WILLIAMS FW14B RENAULT



1993 WILLIAMS FW15C RENAULT



1994 WILLIAMS FW16B RENAULT



1995 WILLIAMS FW17 RENAULT



1996 WILLIAMS FW18 RENAULT



1997 WILLIAMS FW19 RENAULT



1999 McLAREN MP4-14 MERCEDES-BENZ



2001 McLAREN MP4-16 MERCEDES-BENZ



2003 McLAREN MP4-18 MERCEDES-BENZ



2007 RED BULL RB3 RENAULT



2010 RED BULL RB6 RENAULT

The changing shape of Formula 1, by Adrian Newey. The career stats of his Grand Prix cars, up to the 2012 Japanese GP, read as follows:

RACE WINS: 131
Williams 59; McLaren 41; Red Bull 31

POLE POSITIONS: 151
Williams 67; McLaren 42; Red Bull 42

FASTEST LAPS: 143
Williams 63; McLaren 55; Red Bull 25

DRIVERS' WORLD CHAMPIONSHIPS: 8
Williams 4; McLaren 2; Red Bull 2

CONSTRUCTORS' WORLD CHAMPIONSHIPS: 8
Williams 5; McLaren 1; Red Bull 2



1998 McLAREN MP4-13 MERCEDES-BENZ



2000 McLAREN MP4-15 MERCEDES-BENZ



2002 McLAREN MP4-17 MERCEDES-BENZ



2003 McLAREN MP4-17D MERCEDES-BENZ



2004 McLAREN MP4-19 MERCEDES-BENZ



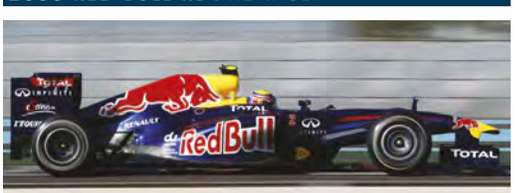
2005 McLAREN MP4-20 MERCEDES-BENZ



2008 RED BULL RB4 RENAULT



2009 RED BULL RB5 RENAULT

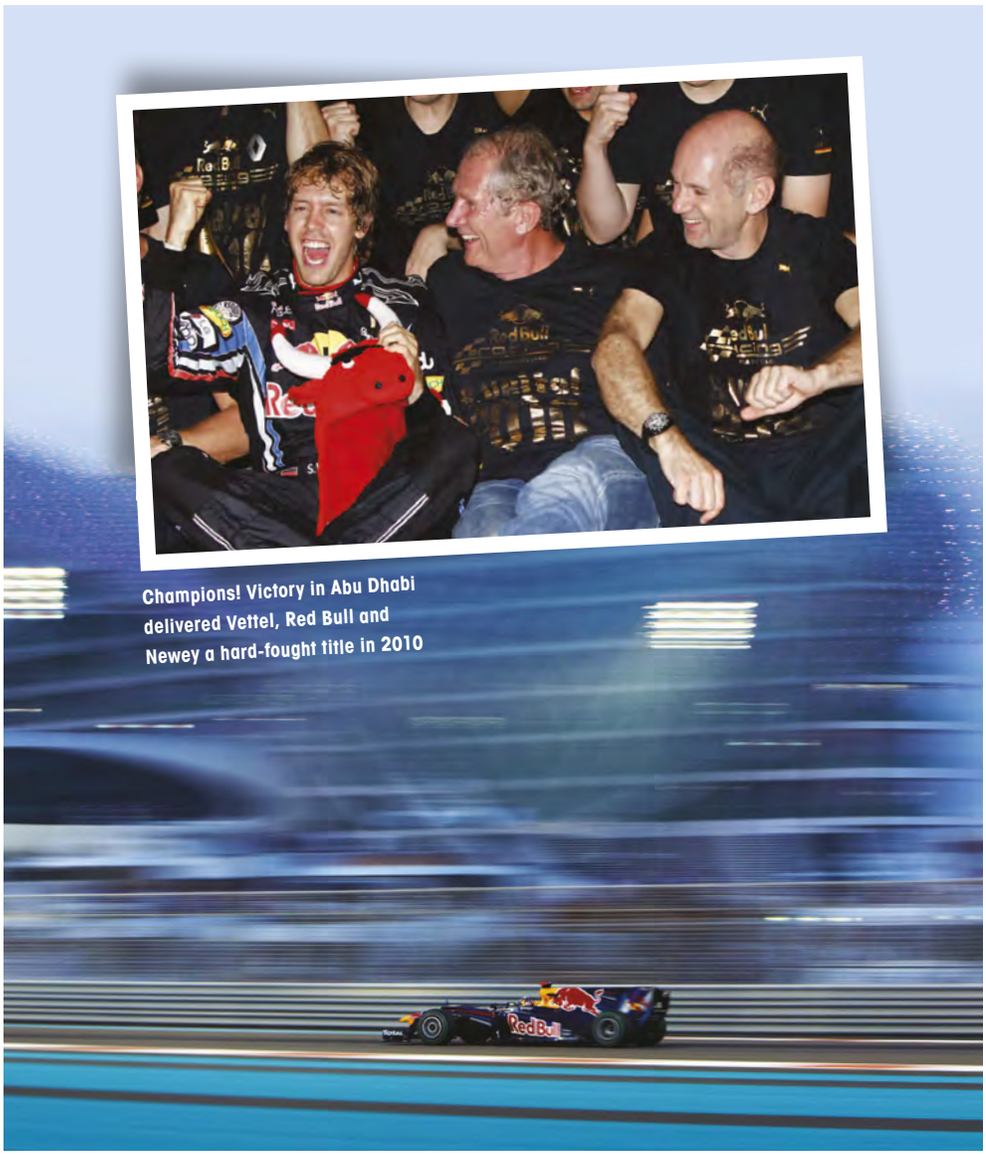


2011 RED BULL RB7 RENAULT



2012 RED BULL RB8 RENAULT

LAT



Champions! Victory in Abu Dhabi delivered Vettel, Red Bull and Newey a hard-fought title in 2010

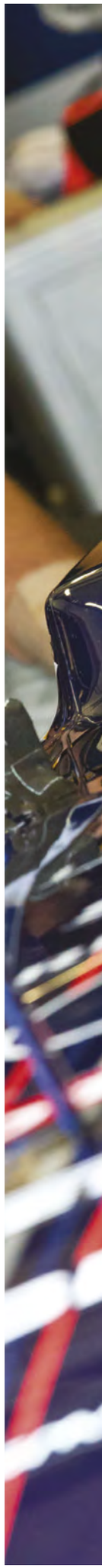
LAT











You see cars where the aerodynamicist clearly hasn't communicated with the chief designer, and the thing looks like a camel.

"I graduated in 1980 long before CAD [computer-aided design] was even thought of in motor racing circles. CAD systems started to be used in racing in the very late 1980s, early 1990s. Probably with the exception of mine, all the drawing boards had disappeared from F1 by the mid-90s. It was a quick transition.

"To some extent the drawing board doesn't matter. For me, it's just a way of taking your thoughts, putting them down in a medium, developing them using that medium and then if it's an aerodynamic idea it's taken off to CAD and the wind tunnel. And I'm lucky enough to be in a position where I have two or three surfacing guys who scan my drawings and then turn them into solid models. But these days we couldn't, as a business, accommodate too many people like me because it would simply be too head-count intensive."

By 2010, 20 years after he'd left Leyton House and his CG901 for Williams, Newey felt his 'new' team was ready to win a championship. Success had been far from instantaneous. Even Adrian's genius would take time to come into effect at a team that, under its previous guise of Jaguar, had been mismanaged so badly. But now, with the RB6, the team made its breakthrough.

"The RB5 was in truth pretty good," he says of the car he designed for the new supposedly 'downforce-lite' regulations of 2009 – only for Brawn GP and its controversial double diffuser to reset the parameters. "Unfortunately there are no classes in F1, but it was the quickest single-diffuser car. We got into the whole politics of whether a double diffuser was legal or not. But the decision was nothing to do with the technical regulation, it was part of the war between Max Mosley, McLaren and some of the other teams. We got caught up in that.



DC was on hand to advise, while a concerned Horner turned up to make sure his technical director remained in one piece...

"Anyway, as a team we were too young. Sebastian was very young, Mark [Webber] was doing a great job, but had some bad luck and made some mistakes. And as a team we were making errors all over the place. The car wasn't reliable, our race strategies weren't often all that clever. So we needed another year at the front to learn how to do it properly."

Then in 2010, Vettel and RB6 came good – after more than a few stumbles along the way. "I've got good memories of this car. We had a frustrating start with a lot of DNFs through silly things – a wheel nut coming loose in Melbourne, Sebastian getting involved in incidents perhaps through inexperience. But in the second half of the year it all came right."

Vettel's late run of form and Fernando Alonso falling foul of Ferrari's strategy errors at the Abu Dhabi finale took them to that magical title. To show his gratitude, Red Bull owner Dietrich Mateschitz presented Newey with an exceptional gift: the RB6 you see here.

Horner's relief is palpable as Newey steps away from the car, and the effects of his summer tan are once again noticeable. Now it's all smiles in the garage. Newey sounded committed through Woodcote, although as a genuinely impressed Coulthard points out, dropping a couple of cogs for the usually seventh-gear Copse is a tell-tale that he's not quite ready to replace Vettel and become F1's only modern-day designer-driver just yet.

"I have driven a Red Bull a couple of times up the hill at Goodwood, so it's not the first time," says Adrian. "You forget how different it feels just sitting there. It's much more claustrophobic than the Leyton House because the cockpit sides are high, your feet are up in the air and the pedals are different: you've got a hand clutch and you have to left-foot brake. It feels much less familiar, more alien. The power delivery is impressive. It's a big kick in the backside. The Leyton House does that too, but this is even more again. And of course the engine note is completely different to anything you're used to. But that all fades after a lap; it's amazing how quickly you get used to it.

"It feels more of a fairground ride. To get to the point where you can slow things down in your own mind to drive that car quickly would take quite a while." But still, you were totally committed, we say. "Yes," he replies with that familiar enigmatic smile. "But then again I do know exactly what it should do." When you're Adrian Newey, you've got a right to have faith in your own work.

Our thanks to Adrian Newey, Patrick Morgan and Dawn Treader Performance, Christian Horner and Red Bull Racing, and Silverstone for their help with this feature.



INSIGHT

NO HOUSE PARTY

Andy Brown is a veteran of Leyton House and worked as engineer to Mauricio Gugelmin. Now a long-time Chip Ganassi Racing team member, he returned to Silverstone to watch Newey drive the CG901 and recalled their days in 'Miami Blue'

"LOOKING BACK ON IT, WE PROBABLY TRIED TO grow too quickly, too soon. It was a small band of people in 1988 and based on the success of that year we got carried away and tried to bring everything in-house. We tried to set up our own composite facility and our own wind tunnel, and all of that was going to be based in Brackley.

"The wind tunnel was bigger and faster than anything that had been built up to that time, and we ran into problems that hadn't been experienced before, with the heat that the (rolling road) belt was generating. It was all moving around. Nowadays they are all water-cooled and made of huge single pieces of metal. Back then they were built in separate sections and with the heat it all moved at different rates. We had some problems with air control as well, and that was creating downwash on the front wing, so we ended up with one for the CG901 that wasn't big enough.

"The car's most successful outing of course was the French Grand Prix and if you look at photos it has what we call 'tea-tray flaps'. In testing at Paul Ricard we realised we didn't have enough front wing – and the front wing extensions were fabricated from trays from the local McDonald's! We had real ones made for the race weekend…

"It took us a while to sort everything out. Adrian eventually got on top of things and re-designed the under-wing mid-season. The first half of the year was very difficult and Mauricio didn't qualify for four races, and Ivan (Capelli) didn't qualify for two. One of those was the Mexican GP, the one before France. But with the new under-wing for Paul Ricard, there we were running first and second.

"But by that time Adrian had already left. He went a week before that race, so he didn't get to enjoy the fruits of his labour. Our team manager Ian Phillips had been instrumental in keeping team spirit alive through the difficult year we had in 1989 and over the winter while we regrouped. But he contracted meningitis when in Brazil at the start of '90, so he was off the scene and didn't come back until the end of the year. Simon Keeble, who was an accountant from the City of London and had no idea how to run a race team, was put in charge. He was at loggerheads the whole time with Adrian, who was trying to fix problems and sort things out, which of course takes money – and accountants don't like that. The politics came to a head and Adrian ended up leaving. Tim Holloway was another member who was the heart and soul of the team, but he followed Adrian out the door because he couldn't take the politics. The heart was basically ripped out of the team there in the middle of '90.

"I managed to soldier on until the end of the year when it got too much for me – and Ian was fired upon his return! I left to engineer Martin Brundle at Brabham, then moved to the States to work in IndyCar.

"Leyton House promised so much and we had everything in place, when you look at what Adrian has achieved since. Unfortunately the politics wouldn't let it happen. I remember him as very dedicated, very focused. We worked together first through the March days, from which Leyton House grew. He'd done the 1984 Formula 2 car which was a very nice, tidy little car which I then developed into the 1985 Formula 3000. I remember him in debriefs, how he'd finish with the drivers from whom we'd get information on the biggest issues. But he wouldn't leave it at that. After he'd addressed those he'd go through every single item on the set-up sheet. His attention to detail was always extreme."



LAT


red roof inns
7 ELEVEN
GOODYEAR
VALVOLINE



All images Bob Harmeyer

Give me Adrian Newey and we don't need the best driver to win

BOBBY RAHAL

Before Leyton House and Formula 1, March sent its promising young designer to America. His four years in Indycar would offer the perfect engineering finishing school

BY GORDON KIRBY

His designs would define the most technically advanced years of Formula 1 we'd yet seen, but first Adrian Newey had an apprenticeship to serve. He wouldn't earn his chops in Grands Prix racing, though, and not even on the race tracks of Europe. Instead, the foundations of Newey's future success were laid in America, in the rough-and-tumble world of Indycars. Road courses, street tracks and ovals: for a fresh young English engineer, it was an alien world.

Newey spent his formative years working at March Engineering under Robin Herd's tutelage. After graduating from Southampton University Adrian went to work for March in 1982 where he race-engineered Johny Cecotto's Formula 2 car and worked as a junior draughtsman in March's drawing office. He was also put in charge of developing the 83G IMSA GTP car and engineered IMSA champion Al Holbert's car in three races in 1983.

Newey's career took a new turn in 1984 and '85 when he was assigned by Robin Herd to work with Bobby Rahal as a race and development engineer. After racing successfully in Formula Atlantic, F3, F2 and Can-Am, and trying without success to break into F1, Rahal went Indycar racing in 1982 with mentor Jim Trueman's Truesports team, run by ex-Team VDS F5000 and Can-Am team manager Steve Horne. Like Rahal, the team were expert road racers, but oval track virgins who learned a lot in their first two years in Indycars. Newey recalls that when he joined Truesports he found himself on a steep learning curve.

"I was very wet behind the ears," Adrian admits. "The first track we went to was the short oval at Phoenix and I had never seen an oval before. So it was a bit of an eye-opener, trying to understand how you engineer a car that is set up only to turn in one direction.



"Bobby, in particular, and Steve to an extent, were very patient with me, letting me get up to speed with what was involved. Through the early tests it was very much them teaching me rather than vice versa."

In 1984 Nigel Bennett designed an all-new Lola Indycar, the T800, and Mario Andretti swept to that year's CART championship driving one for Newman/Haas. "The '84 March was quite a big car and the '84 Lola was definitely the car to have that year," Rahal recalls. "But over the course of the year Adrian re-engineered the March and that's where our relationship started. Adrian and I developed a very strong relationship on and off the track. On the track he practically knew what I was going to say before I said it, so we were able to work together to improve the car and make it better and better."

Newey recalls the development work he did with Truesports in 1984. "Frankly, the car wasn't very good," he says. "We worked hard to take what was a bit of pig's ear and refine it as best we could. The Lola was definitely the benchmark, but by about two-thirds of the way through the season we got the car to be more or less a match for the Lola. We revised the front and rear suspension, reduced the angle of the engine to try and lower the centre of gravity, and we got some weight out of the car. We put a lot of work into it.

"On the basis of that development Robin put me in charge of designing the '85 car, which brought its own pressures because that meant I had to ferry backwards and forwards across the Atlantic, doing the dual tasks of running Bobby and developing the '84 car, and starting to lay out the '85 car."

Newey designed a new, smaller March for 1985. "The '85 car was where you could really begin to see Adrian's influence," Rahal observes. "He just had that touch to try to make the car smaller and more efficient."

Rahal finished third in the '84 CART championship and was third again in '85. He took seven poles and won three races in '85, challenging for the championship until he was taken out by Jacques Villeneuve Sr at the tiny Sanair oval in Quebec.

"Adrian, myself and the team developed a lot over those years," Rahal says. "I'd like to think that Truesports gave Adrian a lot of insight into running and racing the car. It's easy to design a car, but it's another thing to understand how it works in the real world and how easy it is or isn't to maintain. Can the mechanics get at stuff? Is it workable rather than just a piece of engineering art? Is it user-friendly?

> "We gave Adrian a lot of insight into running and racing a car"

"I'd like think that by working with us in those very formative years Adrian took heed and gained an understanding about how things work in the real world, and that over time that knowledge enabled him to design better and better cars. And I think from a driver's standpoint I had such implicit faith in Adrian that if he told me we were going to put the rear wheels on the front and the fronts on the rears I would have said 'Go for it!'."

Newey agrees with Rahal's assessment. "Bobby was very good to work with and reasonably quickly we developed a very good working relationship," he says. "We got to the point where we could actually translate what each other was saying. It wasn't actually the words you used, it was the intention of what you were trying to achieve that became the real way of operating.

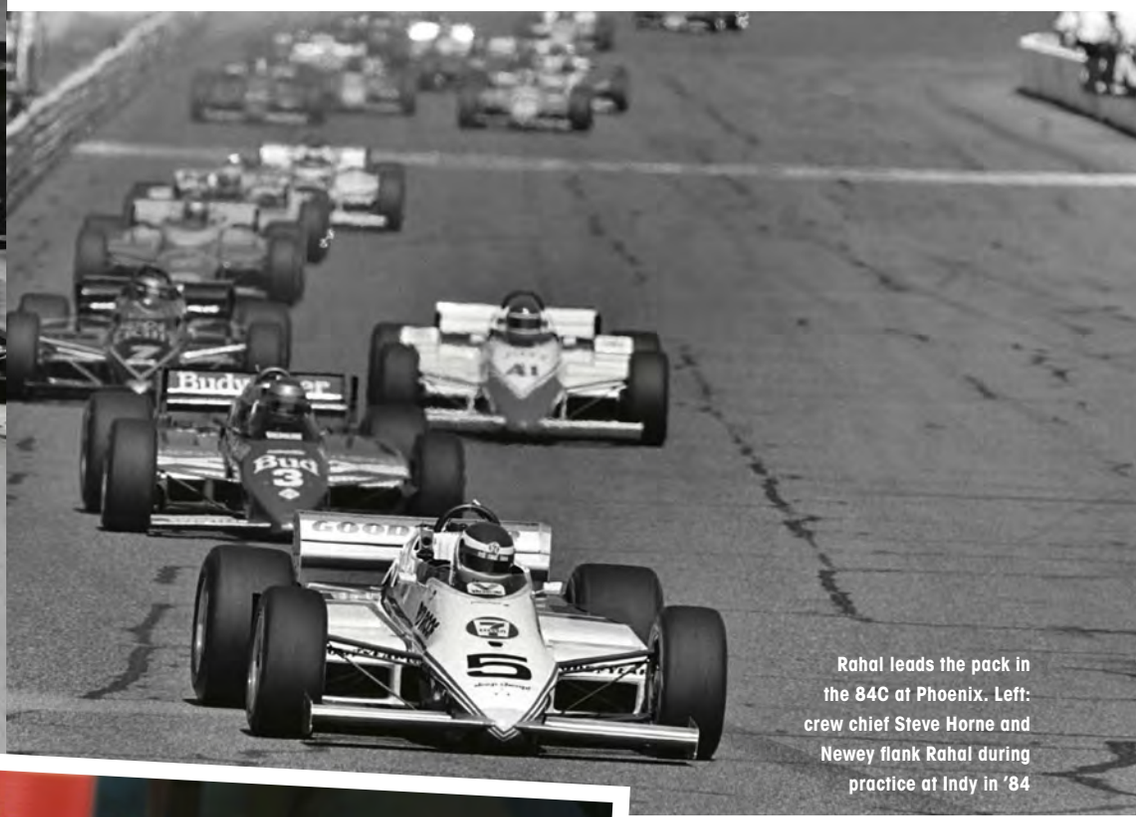
"It's great when you achieve that. I think in reality I achieved that with very few drivers, probably with Bobby more completely than any other driver. I could translate what Bobby wanted without him actually having to go into every detail in what he was trying to describe."

Newey developed a close friendship not only with Rahal and his wife Debi but also with Bobby's father Mike and mother Barbara. "I was basically emigrating through the summer in 1984 and '85," Adrian recalls. "I was 25 at the time and it was quite a big move, socially as well as technically. Bobby and Debi were great. They really helped me settle into America and I also struck up a very good relationship with Mike and Barbara. They kind of became my surrogate grandparents while I was over there, not just through the Truesports years but also subsequently at Kraco and Newman/Haas. They were all very welcoming and Bobby, his parents and I often went out to dinner and spent time together."

Rahal expands on his friendship with Newey. "When Adrian came on we not only worked together but we would socialise and spend a lot of time together. We became very close and our ability to communicate and his ability to understand what I was saying was strengthened as much by the off-track relationship as by the on-track relationship."

Rahal believes one of Newey's biggest strengths is having an open, inquiring mind that's rooted in reality rather than theory. "I think what makes Adrian who he is, is not just





Rahal leads the pack in the 84C at Phoenix. Left: crew chief Steve Horne and Newey flank Rahal during practice at Indy in '84



his brilliance as a designer and his creativity and imagination, but he's also looking at which way the wind's blowing," Rahal observes. "He's not one of these engineers – and there are lots of them – who just bury their heads in the computer. They don't look up from the computer and see what's going on out there.

"I think that's a combination you don't see very often, and on top of that Adrian's an extremely competitive guy. He is an engineer who thinks that ultimately the competition is what determines whether you're successful or not. I've sometimes run into engineers who just look at the piece and ask, is it designed as best as it can be? That's the only interest for them. It doesn't matter how well it goes on the race track.

"I think Adrian is one of these engineers – and I imagine Colin Chapman was very similar – where it's all about having a beautiful car that's engineered to the T, but ultimately it's all about how it goes on race day. His own competitive spirit is what has separated Adrian from the others for many, many years."

But at the end of '85 Maury Kraines outbid Jim Trueman for Newey's services. Kraines owned Kraco Car Stereos and ran an Indycar team at the time with a young Michael Andretti driving. "Without question that was a huge blow for me when Adrian went to Kraco at the end of the '85 season," Rahal remarks. "Adrian says it was all over $5000. I don't know if that's true or not because I didn't negotiate the deal. But for just a small amount of money Robin Herd ended up taking Adrian to Kraco for 1986. We had such a great relationship and had won a lot of races and I thought, 'How could that happen? How could you let a guy like that go?'."

Newey explains his reluctant decision to move to Kraco. "That was a real shame to be perfectly honest," Adrian admits. "It wasn't particularly my wish to move to Kraco. I was very happy at Truesports. I had a great working relationship with Bobby and got on very



Rahal in the 1985 March 85C and inset, taking the lead at the start of that year's Indy 500



well with all the guys there, including Steve Horne who was very straightforward. It was a good relationship and it really came down to two things.

"I think Robin was keen to move me to Kraco because he was doing a sales pitch on Maury and from a career point of view I didn't want to upset Robin. But financially it became a very attractive offer as well. In the end Steve offered about 10 per cent more than I'd earned through '84 and '85 and I thought, frankly, if that's the way you value me I'll keep Robin happy and go for the extra cash.

"That's probably the only time in my career that I've moved at least partly for cash. But when you're 25 a big salary increase is quite attractive. Whether it was the right move or not, who knows? But it was certainly not a move that I necessarily wanted to make. It had lots of positives but it was a shame not to be working with Bobby and, of course, ironically they turned out to be his championship years. He managed it without me."

Another factor was Ferrari's politically inspired proposal for Truesports to run a Ferrari Indycar in 1986. To this end Rahal and the team tested an '85 March at Fiorano and Ferrari offered Newey a job as their chief Indycar designer. "I turned it down because I was happy at March and I wasn't convinced that Ferrari was the right long-term career move for me."

> "I turned down Ferrari. I wasn't convinced it was right for the long-term"

Despite Newey's departure, Rahal won the Indy 500 in '86 and took the first of two consecutive CART championships with Grant Newbury engineering his car. In 1987 Truesports switched from March to Lola chassis for its successful title defence. Meanwhile, Newey departed March's employ at the end of '86 to work for Carl Haas's new Formula 1 team. But then Haas lost his sponsor and Newey wound up working for Newman/Haas in Indycar racing in '87 engineering Mario Andretti's car.

"We won the championship in '86 and in '87, we beat Adrian again that time with a Lola," Rahal recalls. "He was Michael's engineer at Kraco in '86 and Mario's engineer at Newman/Haas in '87 and we beat him both times. So maybe we proved that it wasn't all Adrian."

Newey warmly recalls his time in Indycars during CART's heyday. "It was a very stimulating four years," Adrian says. "I learned a lot through those years. Mario was another driver I had that special working relationship with, and Michael to a lesser extent. I would say the strongest relationship was with Bobby and then Mario, but Michael and I started to get a good understanding. It's ironic that of the five drivers that I would say I achieved that with, three were drivers I engineered in Indycars."

He won't name the other two. "I should probably keep that to myself," Adrian grins.

As Newey moved on in 1988 to design Leyton House's F1 cars, and then make his big move to Williams, Rahal expanded his retinue in 1992 to become a team owner as well as driver. In that first year he won the Indycar crown again, the only owner/driver to achieve the feat since AJ Foyt in 1975 and '79.

In 1993 Rahal struck a deal with Honda to lead the Japanese manufacturer's entry into Indycar racing and Bobby talked to Newey about joining his CART team in Ohio. They met at the Canadian Grand Prix in Montréal, and Adrian and his wife flew to Ohio to visit Rahal's shop.

"Bobby offered me a shareholding in the team, which was obviously very attractive, and I gave it a lot of thought," Adrian relates. "But in the end I decided that F1 was technically where the biggest challenge was and that's

where I wanted to be. Attractive as working with Bobby and being a shareholder in the team was, I decided I would stay in F1."

In 2000 Rahal was invited by Ford racing boss Neil Ressler to take on the job of running Jaguar's F1 team. Rahal worked at Jaguar for six or seven months in 2001 and tried without success to convince Newey to join him from McLaren. "When Neil asked me if I would be interested in directing the team I called Adrian and told him that I was looking to take over running the Jaguar team. At that point Adrian was not necessarily happy at McLaren, I think in part because McLaren was a lot more than a racing team. I think he saw that as a distraction. So we started talking. We went back and forth and he finally agreed to terms."

But the growing presence of Niki Lauda and internal politics at Ford's Premier Auto Group scuppered the deal. "Lauda and myself had dinner with Adrian, but I sensed Adrian was very uncomfortable with Lauda," Rahal says. "He was trying to push Adrian to sign the paperwork at dinner. I said to Lauda that I would get it done, but I said that you can't push this guy.

"There were other problems as well. When I had to explain to the CFO of the Premier Auto Group why it was worth signing Adrian Newey I thought, 'why do I have to explain this?' It should have been pretty obvious, but it wasn't. So the structure of the way things were done dissuaded Adrian, plus the fact that Ron [Dennis] pointed out that Ford wasn't going to be in F1 for the long run and that Lauda was going to fire me. I think the arguments he made struck home and in the end were proven right."

> "I didn't want to arrive at Jaguar and find I was working for Niki Lauda"

Newey agrees with Rahal's assessment. "We got very close, famously close," Adrian remarks. "The chance to work with Bobby again was very attractive and obviously it was a new challenge and a huge challenge to join Jaguar and try to see what we could do with it. There seemed to be decent backing from Ford and a firm commitment, so it all looked very attractive.

"But what gave me cold feet was it became evident that there were a lot of political machinations going on just below the surface. My attraction in going to Jaguar was purely and simply Bobby. I didn't want to arrive there and find that Bobby had been moved sideways or backwards and I was actually working for Niki rather than with Bobby. It became increasingly evident that was going to happen and that's why I got cold feet."

The episode strained, but didn't damage, Rahal and Newey's friendship. "It caused us a bit of a glitch in truth," Adrian remarks. "But it's like any long-standing friendship. You can have the odd row here and there, but if you're genuinely good friends you get over it fairly quickly."

Adds Rahal: "Adrian is a great friend. It was an emotional thing for the two of us, but in the end friendships are friendships and I think it shows the kind of friendship we have to survive such a thing and go on with our lives. The episode was a huge disappointment for me and I suspect probably an embarrassment for Adrian. But in the end I think he did the right thing."

Today Rahal and Newey remain close, sharing a lightweight E-Type Jaguar to win the TT Celebration at Goodwood in 2009 (Adrian added a second TT win this year, partnered by Martin Brundle). "We have a common love for the sport," Bobby observes. "Adrian is a fan of the sport and I think that's the glue that's kept us together. I think his love of racing makes him a better person as well as a better engineer. He just loves the sport and has that competitive drive. He's a racer and I think the fact that he's a racer is what makes him a better designer. He's very competitive."

Rahal is delighted to see his old friend thriving in F1 with Red Bull and has no doubts that the team's investment in Newey is the key to its current position in Grand Prix racing. "I think Adrian is a good leader for the engineering team and a lightning rod for the team. The young engineers probably worship him. He's the kind of guy that will take time to work with people. He's not imperious. And again, I think that's because he's a racing man who's always working with people to get the performance."

Rahal's conclusion about his friend might strike a chord with Dietrich Mateschitz, the owner of Red Bull. "I've always said, give me Adrian Newey and he'll design the best race car and we won't need the best driver to win," Bobby says. "Give him the money to design the best race car and you can take a driver for less money and win races. Give the driver $2 million and Adrian $9m and you'll get a lot more value out of your money than by giving it all to the driver. If you've got the best race car you don't need the best driver." Ⓜ



Rahal and Newey won the Goodwood TT in 2009 and remain firm friends

Sutton

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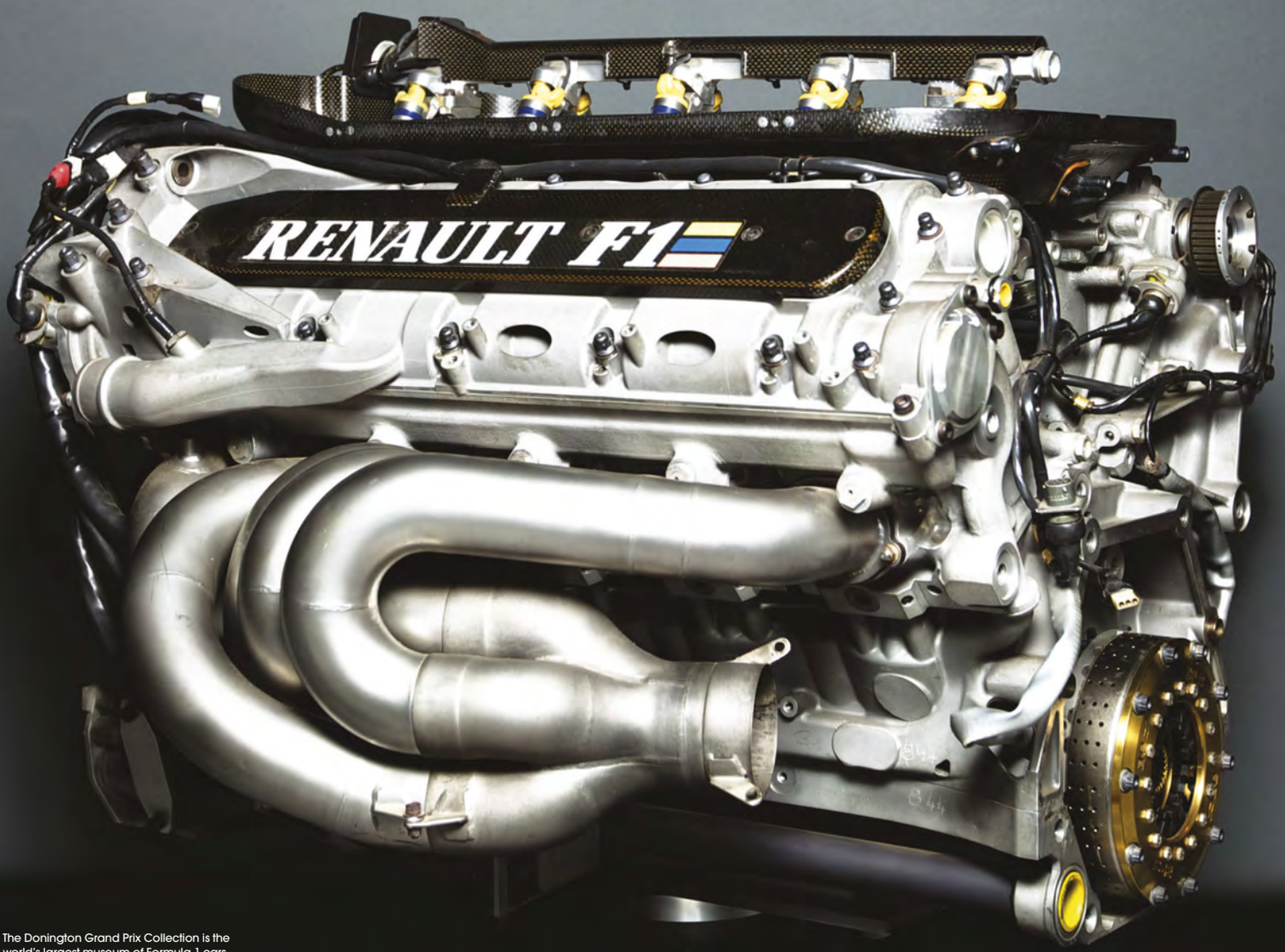
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You gotta know when to fold

Some Formula 1 drivers walk away from the sport of their own accord; others are simply cast off. But what happens next?

BY ADAM SWEETING

As Damon Hill puts it, "everyone talks about climbing Everest, but they don't talk about coming down again." It's impossible for anyone who hasn't ridden the rocket of a career as a Formula 1 driver to imagine what it must feel like to suddenly stop. Sometimes it's of the driver's own choosing, but more often than not the decision is made for him – he's considered too old or too slow, or doesn't bring a large enough cash dowry along with him. Whatever the reason, the transition is never easy. As driver-turned-commentator John Watson observes, "If you've had that intense and exciting F1 lifestyle, if it's suddenly cut off it's a bit like a drug addict going cold turkey. It's quite difficult because the alternative is frankly pretty boring, pretty bloody awful."

Watson found himself an ex-F1 driver when McLaren suddenly replaced him with Alain Prost for the 1984 season. A similar fate recently overtook Rubens Barrichello, when he was tersely informed that he didn't have an F1 ride for 2012. The popular Brazilian came into F1 with Jordan in 1993, and over the next 19 years drove for »»

Stewart, Ferrari, Honda, Brawn and Williams. In the process, he became the most experienced driver in Formula 1's history and almost an honorary Brit, but this didn't save him from being replaced at Williams this year by his countryman Bruno Senna. The team were at pains to stress that the 28-year-old Senna had earned his place on merit, but it was surely no coincidence that he arrived loaded with sponsorship from Brazilian telecoms company Embratel and oil company OGX. The surname probably doesn't hurt either.

Barrichello gallantly congratulated Bruno by tweet before heading west to take up a drive with IndyCar team KV Racing Technology, but he hasn't found the transition easy.

"I obviously didn't choose to go out of F1," he admitted. "It was unfortunately decided for me, but I'm a motor sport fan. F1 became too much about the money side, and IndyCar offered me the drive. I can honestly say I thought it was going to be an easier transition, but it wasn't. The car is so different from the 19 years I've driven in F1."

To his surprise, he has found driving on ovals more enjoyable than he expected ("it is dangerous, but the excitement and the smoothness is the closest thing you can get to F1"), but the street circuits have thrown up unforeseen problems. "The tracks are so bumpy! That's been the hardest thing because I don't know the circuits. You have to be more brutal to the car, go through the bump and see where it lands on the other side. It's pretty tough on a beginner, even though people say 'what are you talking about, he's had 19 years of experience'. I've been a rookie here."

Although he turned 40 in May, he refuses to accept that his Formula 1 days are over.

"I don't know if I'll go back to F1 or stay on this side. I don't know how many years I'm going to be racing, so I don't think we should plan those things. I really thought I would race in F1 for 25 years, so I never thought of when I would stop or this or that. I think it was pretty obvious that the money side was taking precedence over talent, so I was upset that I didn't get the Williams drive because it would have been a much better choice for a team that needs a result. But things happen in life for a reason, so maybe it was in my plan to race in Indy."

I told Rubens I'd been speaking to Jody Scheckter, winner of the 1979 F1 Drivers' Championship, but now reborn as an organic farmer with his Laverstoke Park operation in Hampshire. In Scheckter's words, "At some stage a racing driver has to start making another life." I could hear Rubens wince down the phone. "I don't know, it makes me depressed already. I'm too young to think about that."

Barrichello has doubtless been studying with interest the continuing F1 comeback of his former Ferrari team-mate Michael Schumacher, 43. It seems ironic that this most organised, disciplined and successful of drivers should suddenly have chosen to make a potentially humiliating comeback to the grid, but despite a paucity of point-scoring finishes and the fact that Lady Luck seems to have been recouping all the help she gave him in his championship-winning years, Schumacher has had the appearance of a man simply happy to be involved again. He may have felt he had unfinished business with Formula 1, since rumour has it that his retirement in 2006 wasn't entirely of his own volition.

"Until recently, I was absolutely sure I had ended my career as a race driver at Ferrari," Schumacher wrote on his website when he decided to join Mercedes for 2010. "But sometimes things change suddenly and unexpectedly... And, to tell the truth, the failed comeback attempt last summer [for Ferrari] gave me reason to reconsider my situation. I was surprised myself how fast and how strong I committed myself to this topic again... And when – thanks to Ross [Brawn] – the opportunity arose to drive for Mercedes GP, I realised that my old motivation was back, full of fresh energy and great force."

That's one solution to the retirement problem: simply un-retire yourself. However, it was an opportunity that would only have been available to Michael Schumacher, and even he has had to call it a day. In his book *Winning Is Not Enough*, Jackie Stewart described the reasoning behind his own decision to retire from F1 in 1973. He'd already won two World Championships and was on his way to a third, so there wasn't a lot left to prove. He was also driving in an era of extreme physical danger where many of his close friends had been killed, so having reached the age of 34 unscathed it was only rational to conclude that his luck might not last much longer. In addition, Stewart was one of the best-prepared racing drivers to cope with a post-racing environment, having perspicaciously lined up a string of commercial and media contracts to carry him smoothly into the next phase of his life.

> "I thought I would race in F1 for 25 years, so I never thought of when I would stop"

Nonetheless, his comments on the difficulties of retirement will strike a common chord: "It is the one decision that so few sports people seem to get right; some decide to retire in the midst of a slump and later regret it, others hang on too long and outstay their welcome." Or, as his team manager Ken Tyrrell observed, "Very few people leave motor racing before it leaves them."

Damon Hill went public with some thoughts about what options exist for ex-F1 drivers when news of Barrichello's departure for the States was announced. "Nothing is the same as F1 and there's no gradual climbdown from it," as he put it – and this is a subject he has given some thought to.

"I always had a goal in F1, which was getting the most out of myself in my window of opportunity and then stopping," Hill reflected. "I likened it a bit to being fired out of a cannon; y'know, you see these guys who put their helmet on and are then shot into thin air. Being in a Grand Prix career is a bit like being in the barrel, and when you stop you're still going 1000mph and everyone else is standing still. I found the most difficult thing of all, and I still find it difficult, is being in an environment where people are moving at a very gradual pace, whereas in F1 there's the excitement of being with people who are making decisions quickly and seeing the results quickly. Outside F1, I've found that difficult to replicate."

Hill has been enjoying himself as a pundit on the Sky Sports F1 channel this season, alongside fellow British veteran Johnny Herbert, and points out that journalism is one arena in which he can experience the demanding deadlines and need to think on the spot he was accustomed to in F1, but the prospect of Hill working full time in the media doesn't seem likely. More feasible, perhaps, is a role more in the mould of his presidency of the BRDC, where he displayed considerable tact and subtlety in helping to guarantee the future of the British Grand Prix.

"It's very difficult to find anything that will ever come close to F1," he ponders. "Sooner or later you have to say 'I did that, that's mission accomplished, now let's find another chapter'. I'm still asking the question really of what do I like doing and what do I get satisfaction from.

"I got a lot of frustration from the Silverstone thing and the BRDC, but I gained satisfaction from having played a part in the process. In terms of putting a toe in the water in those kinds of things, I'd say I learned a lot. Whether it was good for my health is another question."

It's possible to divide racing drivers into two categories. There are those who'll doggedly carry on racing until their eyesight fails and they have to be dragged from behind the wheel, and others who accept that the racing life is finite, and with more than half their lifetime still ahead, they need to find alternative pursuits.

In the former category, we've seen drivers such as Jarno Trulli or Jean Alesi running





Post-F1, Rubens Barrichello went to Indycars; Johnny Herbert and Damon Hill (above) to punditry; and Jody Scheckter (right) to farming



through a string of teams and slithering inexorably down the starting grid towards terminal uncompetitiveness, while former World Champion Jacques Villeneuve has popped up in Speedcar, NASCAR, V8 Supercars and the little-known Copa Caixa Stock Car as he grapples with his post-F1 state. Even Nigel Mansell has never officially announced his retirement from motorsport.

Other drivers have proved to be tough-minded entrepreneurs for whom motor racing was just a stage they went through. Niki Lauda launched two new airlines from scratch, while Thierry Boutsen trades executive jets through his company Boutsen Aviation. Eddie Irvine seemed to treat F1 as an amusing diversion while he got on with the serious business of building himself an enormously valuable property portfolio with matching playboy lifestyle, and Carlos Reutemann has enjoyed a prominent political career in his native Argentina. Triple World Champion Nelson Piquet became a successful businessman in Brazil, not least through his company Autotrac, which pioneered a GPS tracking system for use by haulage companies. David Coulthard seems to share some of Jackie Stewart's Scottish acumen, having emerged from 16 years in F1 as the former owner of Monaco's Columbus Hotel and investor in several international properties, while sounding increasingly authoritative as a Formula 1 commentator for the BBC.

As Coulthard put it, "You have to deal with the inevitable next phase of your life and accept that you have reached the end of your journey. You've got a choice: you either eke it out to the point where you're the last to know it's time to stop racing, or you acknowledge that it's time to stop and become part of the process – which is the way I did it."

Still, few drivers have ventured further from the F1 comfort zone than South Africa-born Jody Scheckter. After reaching a career pinnacle by becoming World Champion with Ferrari in 1979, he moved to the USA and formed Firearms Training Systems (alias FATS, Inc), which manufactures and markets "high quality weapon simulation and training programs" for military and police use. This was not perhaps the most politically correct of enterprises, but it was a staggeringly successful one.

"It was massive," Scheckter reports. "We were in 35 countries and we had 95 per cent of the world market. The company went public two months after we sold it, and in the last three years we'd done $29m, $60m and $100m. That's how I can afford to do what I'm doing now on the farm. It was probably as satisfying as racing in some ways, but nobody knew about it. I came back to England after 12 ➤➤➤





Some drivers can't stay out of the cockpit: Jean Alesi went to Indy, David Coulthard (right and above) mixes TV with DTM, while Jacques Villeneuve tried V8 Supercars





years in America, and I was still known as the last Ferrari World Champion."

Scheckter quit F1 aged 30. Would he have done so if he hadn't been champion?

"Phew, I've never been asked that question and I don't really know. I retired because F1 didn't mean much to me any more. One or two guys were dying, and in some places there wasn't a lot of sympathy for that, so you lost respect for some of the people and organisations within it. It didn't mean that much to me to be two-times World Champion."

Scheckter evidently has the capacity to focus his entire attention on a subject and bore deeply into it until he has mastered it to his own satisfaction. That's what happened when his wife gave him a book about organic farming, which proved to be the trigger for what eventually grew into his Laverstoke Park operation. "I read the book and it made a lot of sense," says Scheckter. "It became a passion and then a disease. If I don't do something 110 per cent, I do it badly. If I concentrate on it totally I can do it quite well."

He believes that drivers often possess valuable skills and qualities that can prove useful once they've quit racing.

"People like IMG, who manage a lot of sportsmen, always felt that racing drivers were probably the most intelligent out of all of them. I'm not saying every one of them – most of the French ones in my day weren't – but you've got so much more technology and things to think about as a racing driver than as a golfer or a tennis player. You get involved in a massive amount of decisions. Another thing with F1 is that you learn to develop things very quickly, and that's what helped me in my businesses. You learn to deal with different people from different countries and get on with people as part of a team, hopefully."

Scheckter's point is echoed by Andy Lane, professor of sport psychology at the University of Wolverhampton. Lane deals with a spectrum of sports people from athletics to rugby, football and motor racing, and when they're forced to face the dreaded 'retirement' issue, he seeks to "make people aware of the transferable skills they've got. They're athletes so they're determined and motivated, and they're pretty good problem-solvers. They're very good at performing under pressure and they're usually good with people."

Lane adds that a readjustment of expectations can help with approaching retirement, for instance David Beckham's decision to swap the speedy intensity of the Premiership for showbiz-soccer in Los Angeles. But the hard part comes when the performer finds he's no longer top of the heap and the centre of attention. "As a driver you're the boss in your car," says Lane.



John Watson (left) found live broadcasting gave him focus and a purpose

"The idea that you then give that up can be difficult for the ego to take."

Damon Hill learned something about all this from watching his father Graham grappling with the transition from swashbuckling sporting hero and F1 World Champion to... well, we never really found out what, since he died in a plane crash aged 46 while still trying to establish his own Embassy Hill racing team. In today's corporate F1 it has become harder still for an ex-driver, or any individual, to follow that course and launch their own team, but Damon believes that "my dad's Embassy team were on the verge of pulling it off, but I think he found that transition from being a driver to running a team extremely different and therefore difficult.

"It's a question of developing a different mindset from that of being a racing driver, which is single-minded and very self-centred. A driver is like the singer in the band. The band's rehearsing, the singer turns up last, gets all the glory and is the first to leave. It's very difficult after that to work with a group of people as part of an organisation."

> "You've got more to think about as a driver than as a golfer or a tennis player"

Because of the self-motivating, individualistic nature of racing drivers, the question of how or when to retire and what to do next has to be addressed by each of them in their own way. Whereas Premier League football clubs have an academy system to foster the education and welfare of young players, and the English Institute of Sport has 'lifestyle managers' to help athletes cope with the stresses of their trade, nothing of the sort exists within F1.

"F1's too self-involved and self-focused for that," reckons John Watson. "It's an aggressive, competitive environment which eats up people and talent, and you get your day in the sun and then you piss off. If you reach F1 you are by definition somebody who has achieved, and most likely you've got other abilities that will enable you to adapt. Some drivers, such as my countryman Eddie Irvine, have been as big a success in other areas as they were in F1."

Watson spent several years in Group C sports cars after he lost his McLaren seat, but felt enormous relief when he found a berth in broadcasting. "It gave me almost everything I got from being a driver outside the physical driving experience, because broadcasting live to an audience is very focusing and stimulating. It also gives you a purpose, because when you walk into the F1 paddock you're there to provide a service."

There is an added benefit for the former F1 driver which isn't shared by sportsmen from most other disciplines, which is relief that he's still alive.

"Whichever way you skin it, motor racing is dangerous," says Damon Hill. "I've got four kids and I wanted to be there for them, so I've been trying my best to be responsible. I think there comes a point where you're very thankful for all the luck you've had, and you don't feel like pushing your luck any more."

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What's the big idea?

Bentley will return to racing, but before it does, it needs to transform its heavy Continental Speed road car into a fast and competitive racer

BY ROB WIDDOWS

Bentley is back. One of the most famous names in the sport is to return to racing, with its Continental GT Speed model in 2014. We have all devoured the tales of derring-do by those 'Bentley Boys' back in the 1920s, and we all remember the Speed 8 winning Le Mans in 2003. But this time around the new Bentley Boys face a whole different challenge.

Those famous victories at Le Mans are an integral part of the legend that is Bentley. But this time La Sarthe isn't the target for the grand old British manufacturer. The project was shrouded in secrecy until the Paris Motor Show at the end of September, when a GT3 concept car, code-named XP12, was revealed. What we've seen is little more than a show car at present, but the project has been approved by the FIA and the real thing will take to the track towards the end of next year.

Behind closed doors at Crewe, the racing department has been busy transforming computer models into something solid. The man tasked with the huge challenge of building and developing another winning Bentley is Brian Gush, director of powertrain, chassis and motor sport at Crewe and the man who masterminded the campaign which culminated in victory for the Speed 8 at Le Mans.



This time, rather than a bespoke prototype they have to transform a big, heavy road car into a winning racing car. And they're going to be up against the very best GT3 cars in the world. Mr Gush is undaunted.

"Yes, it's true, the Continental GT is a heavy car," he concedes, "but we have already taken a lot of weight out. I will not give you very much detail at this stage, for obvious reasons, but removing weight is certainly a key element when it comes to the racing car. It's not as difficult as you might imagine. We can remove all the luxury wood, leather, electronics and all the other creature comforts you associate with a Bentley. Once you take all those things out, you very quickly get down to a weight that is competitive. You need to hold every part in your hand, and ask yourself – is this part really necessary in the race car? We are confident of getting there. That's all I'm prepared to say at this stage."

What we do know is that the road car's gross weight is a heady 2750kg, and it is said Bentley's diet target is 1600kg – a loss of more than a tonne. The challenge of transforming the Continental into a car that can compete in an intensely competitive category is clear.

"Yes, it's a challenge, but what it's all about is attention to detail," says Gush. "Weight distribution, for example, is crucial and the GT3 category allows a manufacturer like Bentley to remove the four-wheel drive and to move the engine into a more optimum position. That is not unique to us, it's what everyone in GT3 is doing. So we will have rear-wheel drive with a transaxle, a new racing gearbox, the engine will be further back and lower down, and the ancillaries will then be positioned so that we achieve the best possible weight distribution. We have started the homologation process with our W12 engine, but we also have the option to run the V8, and we will race with the engine that we feel is the most competitive."

The answer needs to be found as soon as possible, as many other areas will be affected.

"It's all about power-to-weight but it's not such a simple decision," Gush says of the engine decision. "We have to consider the power characteristics of both engines. The W12 can do what we want it to do, it's a great engine, very compact, light, powerful and reliable. I am not prepared to tell you the difference in weight between the two engines because engine weights are difficult to compare. The W12 has an air-to-air intercooler, so the intercoolers are away from the engine, whereas the V8 has a water intercooler that is integral on the engine. So you don't get an apples-to-apples comparison.

"Before the car gets to a track we will be using a lot of computer simulation from all the CAD [computer-aided design] information and then we do a virtual assembly of the car. Then our CFD [computational fluid dynamics] data will give us an idea of what the car can do and that gives us a head start in laying it out. Then we verify all that in the wind tunnel before running on the track. All those simulation programmes are important to make sure we get it right before we cut any metal. Towards the end of next year we will be testing, and we will do a test race, but we haven't decided yet exactly which series we will enter. GT3 has a global footprint, second only to Formula 1, and we have looked at all the options including the Blancpain series. We will have customer teams, some of them works-supported, but we will definitely *not* have a works team masquerading as a customer team."



The Continental GT is a big car in comparison to its main competitors. Might that be a concern?

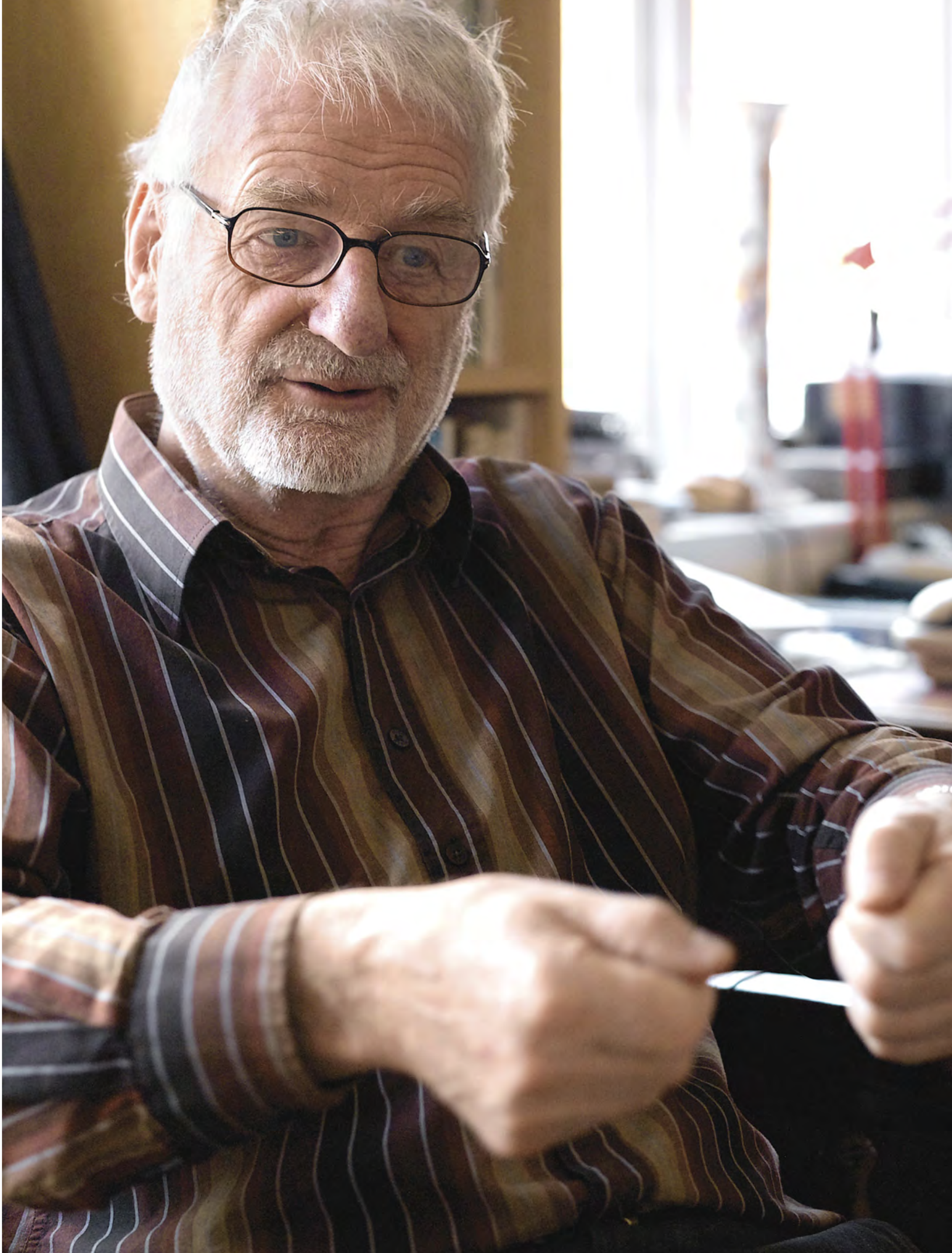
"It's a Bentley, Bentleys are big cars, and they have great presence. It gives us some challenges, yes, but that's what we're here for, and we believe that, given the layout of the car, we can achieve what we want to achieve with it. We can get it in the zone, and we can win – if we couldn't win, and we didn't think we could win, we would not be doing it."

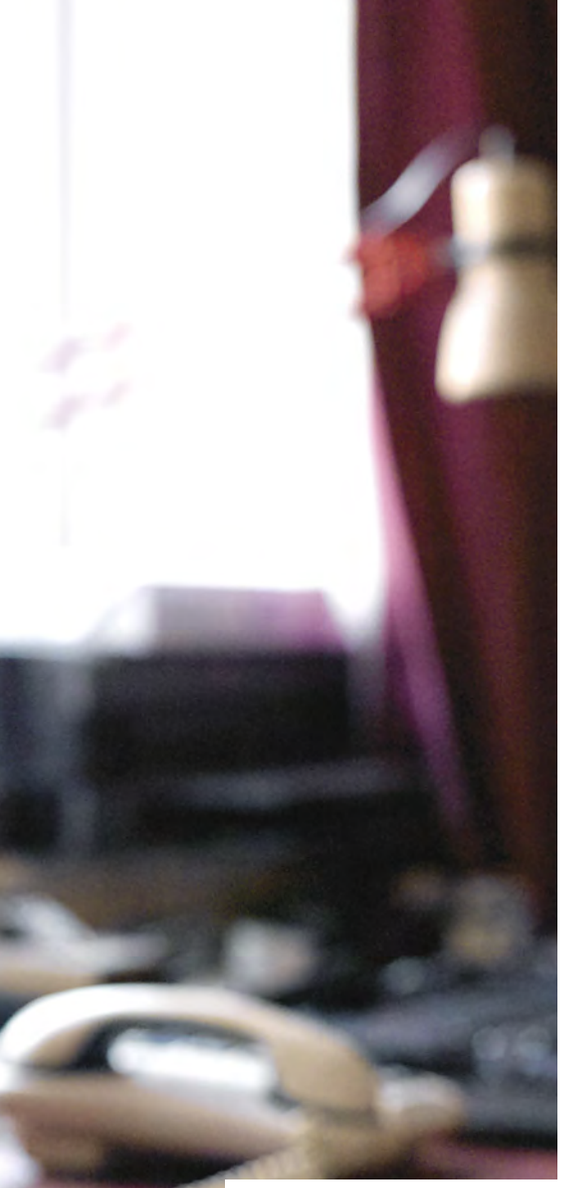
So how does Gush see the new racing programme as part of Bentley's marketing strategy under the new CEO Dr Wolfgang Schreiber, who has declared that the decision to go racing again was in response to "a clear message from our customers"?

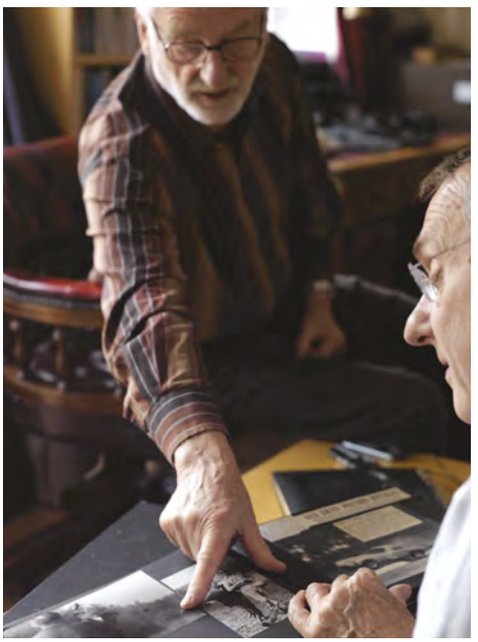
"It's exciting on many levels. Importantly, we are aware of a more youthful target market for the road cars, and the motor sport programme appeals to younger potential customers. The Continental is already a very fast road car, with huge performance, so the association is a natural progression. And that's why we go racing, to develop the technology and excite the new, more youthful market. It's also highly motivational for our colleagues at the factory in Crewe, that's an important part of why we go racing, it's exciting for them to be involved.

"We looked at Le Mans again, where Bentley belongs, but with Porsche going back with an LMP1 and Audi still being there, there wasn't room for a third brand from the Volkswagen group in the top class. We don't have an eligible car for the GTE class, so we have no plans to return to Le Mans at this time. The best option was to go into GT3 which is a formula that allows us to alter the Continental GT sufficiently to be competitive, while keeping the links to the road car."

This careful thought process became reality with the concept car unveiling at the Paris Motor Show. Greeted with great excitement, and a barrage of flash bulbs, the new racing car returns the legend of Bentley to the race track and is big news around the world. Now the work starts in earnest.







An unlikely aristocrat, he raced for just eight years. But this 'original thinker' squeezed in a lifetime's worth of experience against the very best during racing's golden era

BY SIMON TAYLOR

Lunch with...

SIR JOHN WHITMORE

In more ways than one, Sir John Whitmore is different. Since this monthly series began in *Motor Sport* six years ago I've been lucky enough to take some 80 motor-sporting personalities to lunch, and I don't think any of them has had so short a racing career. Probably none has had so strange a life since walking away from the sport, either.

But John makes a worthy and fascinating lunch guest, because of the cars he raced, the people he raced against, and the magical period in which he was racing: the early 1960s. Those years formed a watershed, dividing the devil-may-care days when even top-level motor sport was still mainly for fun from the looming era of professionalism. When John won the 1961 British Saloon Car Championship, the BTCC of its day, his mount was a second-hand 850 Mini he'd bought for £400. Five years later he was part of the massive Ford onslaught on Le Mans, with million-dollar budgets, huge motorhomes, armies of mechanics and engineers, and suited executives on the phone nervously reporting back to head office in Detroit. That change helped him decide, after just eight seasons, to turn his back on a flourishing racing career and move on to the next stage of his life.

John was born in the aristocratic splendour of Orsett Hall, a 7000-acre estate surrounding a 17th-century stately home in Essex. It had only been in the family since his grandfather's time: the then incumbent, Digby Wingfield-Baker, was playing cards with John's grandfather for high stakes, and lost. Having no money, he handed over the entire estate to pay the ➤➤➤



James Mitchell

debt. "But it turned out to be mortgaged up to the hilt. And the house was almost falling down, and barely habitable. When my grandfather died in 1907 my father had to turn all that around, make the estate profitable, create a successful working farm, and restore the house. He did it extremely well. He commanded a brigade in World War I, got the DSO and was mentioned in despatches four times. Then he served as Lord Lieutenant of Essex for 22 years, for which he was created a baronet.

"But the thing was, he was of a different time. He was born in 1872, so he was already nearly 30 when Queen Victoria died. In 1937, when I was born, he was 65. He never drove a car. I was sent to Eton, as he had been, and then to Sandhurst to become a soldier. But I got a poisoned hand from a fish-hook and was invalided out, so I switched to Cirencester to learn how to be a farmer.

"Beside my parents, who were both eminent people, I just felt like a little guy. I needed to prove myself somehow, demonstrate that I could make something of myself. I'd heard about Le Mans and I thought, if I make it my goal to be in that 24-hour race just once, I'll be satisfied. I did the RAC Rally in a borrowed A35, and finished, and then somebody said, 'There's a racing driver living up the road in Chelmsford. You ought to talk to him.' That's how I met Alan Stacey, whose speed with his own Lotus sports cars had earned him a seat at Team Lotus. He gave me lots of good advice, and the upshot was I got myself an old 1172cc Lotus Six and did half-a-dozen low-key races to get my signatures. The Lotus Elite was just getting into production then, and the early cars were only being sold to known heroes. But Alan said to Colin Chapman, 'Why don't you let Whitmore have one?'

"The trouble was, my father had no idea I was motor-racing. He never did find out until my mother finally told him when I won the British Saloon Championship, about six months before he died. She was wonderfully supportive – she didn't like me racing, but she understood that I had to do it. Colin said he'd sell me an Elite for £1400, and she gave me the money. I got pre-production car No 4."

John's impact on British GT racing with the Elite was immediate. He won his first race at Snetterton; turned the car over at Mallory Park two weeks later avoiding a back-marker; and then put it on the front row for the Silverstone May International, alongside Moss (Aston DB4GT), Salvadori (Coombs Jaguar) and Colin Chapman himself in the works Elite. In the race he finished fifth overall and second in class. "Back in the paddock Colin said he wanted to fix me a ride at Le Mans, but I didn't take him seriously. On the Monday there was a phone call at the farm office from a Mr Chapman. I thought he was a seed merchant. When I realised who it was I nearly fell over. The upshot was, I was put in the Border Reivers Elite for Le Mans 1959 with Jimmy Clark. I'd been racing seriously for three months.

"At Le Mans Lotus lodged the cars in a little village garage not far from the track, like people did then. Alan Stacey was driving a 750cc Lotus 17 – Colin reckoned it could beat the French in the Index of Performance – and he and I were sharing a room over the local café. Jimmy was there too: he had still never raced a works Lotus, and was new to the Hornsey gang. Few people knew that Alan had lost a leg in a motorbike shunt when he was a teenager, and he walked perfectly well. He just needed a twist-grip on the gearlever, to blip the throttle on down-changes. We were reading a piece in a French newspaper, and it said, 'One of the drivers in the 24 Hours has a false leg.' 'I wonder who that is?' said Jimmy. Alan said, 'It's me.' Jimmy said, 'No, don't be silly, who is it?' He thought he was joking. Next morning Jimmy came bursting into our room saying, 'Come on you guys, time to get up.' Alan's tin leg was lying there on the floor. Jimmy was so embarrassed. Alan and I had a bloody good laugh about it.

"In the race Jimmy and I were several seconds a lap faster than the other Elite, the Lumsden/



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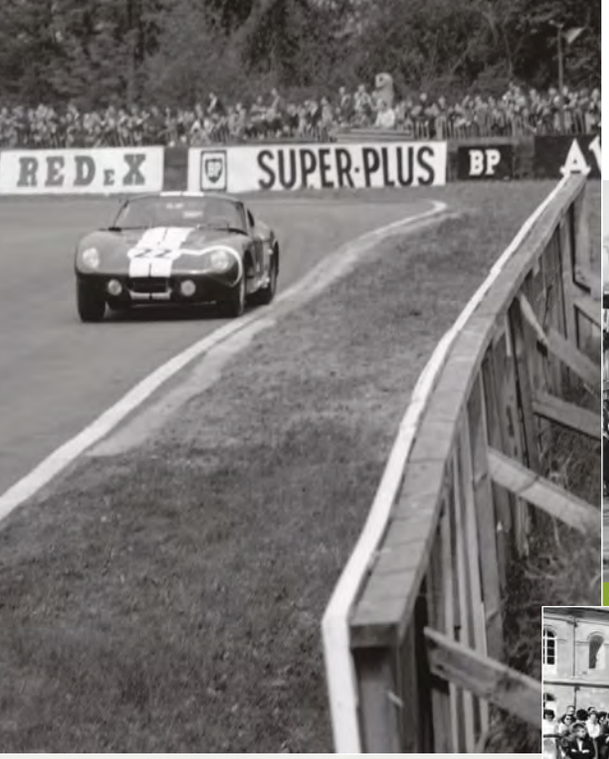

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[1] 'Just call me John': Whitmore played down his aristocratic roots [2] Leading Jack Sears' Daytona coupé in Shelby Cobra, Oulton Park, 1965 [3] Ford GT40 on the Targa Florio, '65 [4] Whitmore raced a Mustang at the Goodwood Revival, in a rare race return. "I didn't really enjoy it," he says [5] Heading Christabel Carlisle on her way to '61 British Saloon Car title [6] Sharing GT40 with Masten Gregory at Monza, '66. They finished second [7] Elite trio: Lotus squad on parade at Le Mans, '59 [8] In McLaren M8F during comeback, '90




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LAT

Riley car, until the starter failed. You weren't allowed to change the starter motor. So the mechanics hid a new starter in a bucket of water, took off the old one making a pantomime about how hot it was, dunked it in the bucket supposedly to cool it down, and then pulled the new one out of the bucket and fitted it to the car. All that lost us masses of time, so the other Elite won the class. We were second, and 10th overall." Two weeks later Border Reivers entered John at Charterhall in the Lister-Jaguar normally piloted by Clark, the first big car he'd ever handled, and he won two races.

"In September I took the Elite to Italy to do a race at Monza. On the back straight I saw a haze in the mirror, and thought my engine was about to blow. But it was brake fluid leaking onto the exhaust. When I hit the brake for the Parabolica the pedal flopped to the floor. I tried to spin it, but hit the barrier on the inside and took off. When it all stopped the Elite was just a heap of shredded fibreglass. All we brought home was the engine and gearbox."

John Ogier, a wealthy local chicken farmer and prolific entrant through his Essex Racing Team, came up with rides in one of his Aston Martin DB4 Zagatos, a Tojeiro, and a single-seater F2 Cooper, and later Whitmore raced a Formula Junior Lola for the Fitzwilliam team. He also ran his own Lotus 20 Junior. Using a BMC engine it lacked the speed of the Ford-powered cars, but he raised some eyebrows by qualifying on the front row for his heat at Monaco alongside the works Lotuses of Peter Arundell and Trevor Taylor.

Meanwhile, the Mini had come into John's life. "It was launched in August 1959, and at the Boxing Day Brands Hatch four months later somebody entered me in an absolutely standard production car. There were others in the same event, and I think it must have been just about the first time a Mini was ever raced. I found the whole of Brands was flat out, even Druids, because after you'd toiled up the hill you'd lost most of what little speed you had. But it was immense fun passing everybody in the corners, until I got a puncture."

For the 1960 Le Mans, Border Reivers entered their Aston Martin DBR1 for Jim Clark and Roy Salvadori, and nominated John as reserve. "I did a few practice laps in it on the Wednesday, but on Thursday, when it became clear I wouldn't be needed for the race, Mike Costin came over from Team Lotus and told me I was wanted to drive with Innes Ireland in a very special experimental Elite, which had a 2-litre twin-cam Climax engine." This car was backed by the father of Michael Taylor, who was to have driven it with Ireland. But the previous Saturday, in practice for the Belgian Grand Prix at Spa, the steering column on Taylor's Lotus 18 had broken, and in the ensuing crash he had been dreadfully injured: in fact he never raced again. He lay in the wreckage unnoticed for a long time because the marshals were dealing with Stirling Moss' equally serious accident that had happened on the same lap, also because of a Lotus failure. At once Lotus works driver Alan Stacey was nominated to drive the big-engined Elite with Ireland: but next day in the Spa race Stacey was killed in a freak accident when he was hit in the face by a bird. Chris Bristow also died that day.

"It was a dreadful weekend. I was racing my own Elite at Snetterton, and got the news that Alan – my first and my closest racing friend – had been killed. But we all set off for Le Mans as usual. I drove down in my Mini van, which was the cheapest new car you could get: £390 and no purchase tax, because it counted as a commercial vehicle. Jonathan Sieff, who was on the reserve list with a conventional 1216cc Elite, was named as Innes' co-driver in the 2-litre. But in Wednesday practice he scared himself in it, so Costin approached me.

"I practised the 2-litre on Thursday evening. Innes reckoned it was unstable and lacking in brakes, but it felt quite good to me, and it was certainly bloody quick. Meanwhile Jonathan took the 1216cc Elite out for a few practice laps. Flat out on the Mulsanne Straight he went off and hit a building. I think something must have broken. He ended up on the opposite side of the road from the wreckage, and in the dark it was several minutes before they found him. He was in a very bad way.

"Roy Salvadori and Innes and I went to the hospital and Jonathan was just screaming, you could hear him all over the building. He was semi-conscious and in appalling pain. We were sure he was going to die. Alan, who of course was Innes' friend and team-mate as well as my friend, was dead. Bristow was dead. Michael was badly smashed up, Stirling's legs were broken. All within six days. We went back to our little hotel – I was sharing a room with Innes – and Innes wouldn't go to sleep. He kept talking, kept talking, and at about 3am he said, 'We're not going to run this race. I'm going home. I want to leave now, this minute. I need to borrow your car.' There was no arguing with him. I gave him the keys to my Mini van, he loaded up his stuff, and he disappeared into the night." ➤➤➤

(Innes Ireland recounted the same tale in his famous autobiography *All Arms and Elbows:* "I was sick to the stomach of the whole thing. It was purely an urge to escape." But four days later Ireland returned to France for the Grand Prix at Reims: right back on form, he qualified fourth, ahead of the Ferraris of Mairesse and von Trips, and was second when, in another Lotus failure, his front anti-roll bar fell off.)

"For 1961 Marcus Chambers, BMC's comps manager at Abingdon, sold me a rather battered ex-rally recce Mini for £400, and I took it to Don Moore in Cambridge. Don was a really brilliant guy, and his preparation was key to my winning just about every race I did with the Mini. I won the British Saloon Championship outright. At the end of the season there was a race on the long circuit at Brands, and for that I lent the Mini to my friend Steve McQueen, who was over in Europe filming *The Great Escape*." Mike Parkes won in a 3.8 Jaguar, but all eyes were on a frantic battle for the class victory between the Minis of Vic Elford, Christabel Carlisle and McQueen. The three of them crossed the finish line as one, with Elford just getting the verdict from Ms Carlisle and McQueen. As newly-crowned champion, John was on the podium to present the prizes.

"I got to know Christabel very well, because Don Moore prepared her car too. She was so young and demure and pretty that nobody took her seriously at first, but she was a brilliant driver. We shared her Mini in a long-distance race at the Nürburgring, and I knew immediately that she was good. In all the British championship races she was usually my closest challenger.

"I took my green Mini to a meeting at Roskilde in Denmark. Stirling [Moss] was running in the F2 race, and in my race I was up against a horde of Saabs. I think I finished second. Stirling was with a Swedish air hostess called Gunilla, introduced to him by Jo Bonnier. She was recovering from an accident on a TWA flight: in very rough weather, the captain had told everybody to put on their seat belts, and one passenger was struggling with her belt so Gunilla got up to help her. At that moment the plane dropped 500 feet, Gunilla went up, hit the roof, came down sprawled over the back of a seat, and broke her back. She was still recovering when I met her again at Le Mans. I was racing that old Healey 3000, DD300, with Bob Olthoff; the Healey was heavy and slow, but we kept going for 19 hours. Gunilla came back to London with me and we started a relationship. Steve McQueen said to me, 'Don't marry her, it won't last more than six years.' He was very savvy at reading people. We did marry – and the marriage lasted exactly six years.

"As for Steve, that famous motorcycle jump at the end of *The Great Escape* was done by another good friend of mine, Bud Ekins, a top American trials rider who also drove the Mustang for some of the stunts in *Bullitt*. Steve did try the jump himself first, because he didn't want a stand-in doing anything he couldn't do himself. The insurance people didn't like that at all, and when the cameras were rolling it was









Bud on the Triumph 650. In America four of us, Bud, Steve, the actor Charles Bronson and me, used to fool around on our motorcycles on the old Mulholland Drive north of Hollywood, when most of it was a dirt road. We called ourselves the Chicken Shit Racing Team. Bud took some hen droppings to a chemist and got him to analyse it, and he had the formula – H_2PO_3+$(NHq)_2C_2O_4$ – painted on our helmets by the top Los Angeles hot-rod painter Kenny Howard, aka Von Dutch or Joe Lunch Box."

For 1962 John was asked to join the Tyrrell-run works Mini Cooper team alongside John Love. "We did European championship rounds as well, and we had an extraordinary race at Spa. There were three Mini Coopers for me, Bill Blydenstein and Jimmy Blumer, and the other cars were things like DKWs, 12 seconds a lap slower than us. The race was going to be a walkover, so to put on a show Ken Tyrrell said, 'Let's do a dead-heat with all three cars – but you've got to get it absolutely right.' So we're howling round miles in front, swapping the lead between us, and on the last lap Bill's gearbox packs up. Jimmy and I slow down to stay with him, we're going slower and slower, and round La Source towards the flag we're almost down to walking pace so Bill can catch up and we can stage our dead-heat. And some local guy in a DKW [Emile Holvoet] comes round La Source and, before we know what's happening, he's beaten us by a few feet, with the three of us dead-heating for second place. Ken was absolutely livid."

In the summer of 1962 John's father died, and suddenly he was Sir John Whitmore, Bart. "It bemused people, because I'd never given the impression of being much of a gent. I rather rebelled against the English class system, and never mixed with the so-called upper classes. I used to tell Jack Sears, who was an East Anglian farmer too, that he was much better at all that stuff. He should have been the Sir, not me."

John did a lot of races in jazz musician Chris Barber's pale green Elite, winning outright at Spa in heavy rain, and leading his class in the Goodwood TT until the engine failed. In the 1963 British Saloon Championship he scored the most points and won the class in the works Mini Cooper S, but under a points-dropping rule the overall title went to Sears. "At Le Mans I was with Olthoff in a Sprite, which was terribly boring and slow. At about 1am Bob had a huge shunt at White House, and the car was destroyed. I also managed to do two Monte Carlo Rallies: one in a Vauxhall Cresta instead of a real car, and we finished; one in a Sunbeam Alpine, and we crashed." He also drove a Lotus Elan 26R for Stirling Moss' SMART team. "It looked very different because Frank Costin had modified the bodywork, but it was no better than any other Elan. It had a dreadful habit of shedding wheels, and in all my races with it I either won or finished up in the ditch."

For 1964 an offer from Walter Hayes persuaded John to sign up with Ford. "When I was with the works Cooper-Mini team my expenses were reimbursed, but I don't remember actually getting paid. Ford came up with a retainer of £5000, which was a lot of money in those days. That put me into a serious operation with Lotus Cortinas, AC Cobras, Galaxies, GT40s, usually run by Alan Mann.

"Alan was absolutely brilliant. He

drove in a few races himself as a youngster, and then decided he'd be better at running a team. He made good decisions about people, got the right guys to do the right jobs, and then let them take the responsibility. He knew a lot about engineering, but his special quality was that he would never panic. He was always totally positive: whatever the problem was, he believed a solution could be found. His calm way of handling people under pressure communicated itself to the mechanics, and to the drivers: everything's OK, Alan's in control. He dealt with me very well, because I tended to flap if things went wrong. He was by instinct an outstanding manager."

John's main effort in 1964 centred on the European Touring Car Championship, when his red and gold Lotus Cortina scored maximum points in eight of the 11 rounds to take the class, but still lost out overall to Warwick Banks' 1300 Mini. In the Spa 24 Hours, sharing with Frank Gardner, Whitmore led overall, having wrested the lead from Eugen Böhringer's Mercedes, until the clutch failed. "Frank was the man I'd choose as my ideal co-driver: quick, straightforward, fair-minded, and very good mechanically. We really respected each other."

For 1965 Alan Mann ran the European end of the Shelby Cobra attack on the FIA GT Championship. In the Monza 1000Kms Whitmore was paired with Jack Sears, finishing second in the GT category behind team-mates Bob Bondurant/Jerry Grant, and a week later in the TT at Oulton Park John was in a roadster, Jack in a Daytona.

"The race was in two two-hour heats. Jack's coupé was quicker, but in the first heat he had a brake problem, so I led the GT category. Then I had a major drama: the exhaust system broke, poisonous gas was sucked into the cockpit, and I was absolutely asphyxiated. When I stopped for fuel and tyres Peter Sutcliffe's Ferrari GTO went ahead, but I got to the end of that first heat somehow, in second place about 28 seconds down. I had to be lifted out of the car, barely conscious. I was very sick and making no sense. In the medical tent I was given oxygen, but when Alan came in I told him I felt terrible and no way could I do the second two hours.

"Alan said, 'You have to do it. You can win it. I've worked out that if we're very careful with the fuel, and if you make your tyres last, you can do it without a stop. We'll give you all your pit signals counting you down to your fuel stop, so the other teams will think you're coming in, and I'm not going to tell the mechanics, because they may wink or smirk at each other and give the game away. When you ignore the signals they'll think you're still suffering from exhaust poisoning.'"

> "Poisonous gas was sucked into the cockpit. I was asphyxiated"

So Whitmore dragged himself into the Cobra cockpit, did the two-hour second leg, duly ignored his pit signals, beat Sutcliffe by more than the required 28sec, just about made his tyres last – and ran out of fuel on the slowing-down lap. The front brakes were gone, the front anti-roll bar was broken, and his hands were blistered and bleeding, but he'd won the GT class. "When I got home that night I was bloody ill. But we'd scored top Championship points that day. I think it was my best race: talking about it again today, I still feel emotional about it."

At Spa two weeks later Whitmore was back in a Daytona coupé, leading the category from Bondurant when a slower Cobra moved across on him and he hit it, hard. In the Reims 12 Hours, paired again with Sears, their Daytona went onto seven cylinders. In a long stop the con-rod and pushrods were removed, the piston pushed to the top of the bore, the oil lines closed off, and the car sent out again to chug on for five more hours. "The Cobra had open pipes each side, and when you're on seven cylinders in a V8 the distortion makes it very painful. Most of us didn't wear ear-plugs in those days, and I've been deaf in one ear ever since." But John and Jack brought the car home second in class, and ninth overall. The season ended with Shelby Cobra taking the GT title, from an admittedly non-works line-up of Ferraris.

At the end of 1964 John had been summoned to Monza by John Wyer, then running Ford Advanced Vehicles, to test a GT40. "I only ever had two really bad accidents, and they were both at Monza: the brake failure in the Elite, and testing that GT40. It wasn't getting full throttle because the linkage was fouling the tray under the carburettors, so they cut a hole in it to clear the linkage. At the end of the long home straight, when I lifted off for the Curva Grande, the linkage snagged on the hole and it just kept going. I had to decide whether to hit the Armco or go behind it into the trees. I decided on the trees, and I'm glad I did, because they were quite young trees, they slowed the car progressively. After about 70 yards I came to a halt with nothing worse than seat belt bruising, but the car was pretty much destroyed. Richard Attwood, who was also testing a GT40, said it looked like the scene of a plane crash. Richard gave me a lift back to the pits, and Wyer said, 'Where's the car?' I said, 'It's in the trees.' He was furious, hissed at me, 'Salvadori would never have done that.' Later, after they'd looked at the wreckage and found the throttle linkage still jammed, Wyer apologised to me – unusual for him."

Whitmore shared a GT40 with Attwood in the Nürburgring 1000Kms, retiring with broken engine mounts, and at Le Mans with Innes Ireland, only for the engine to fail after six hours. He was racing Lotus Cortinas both for Alan Mann and for Team Lotus, with Jim Clark sometimes his team-mate. "Jimmy and I always talked a lot about farming, which was his life; he'd got into racing almost by ➤➤➤



Sutton

Band of brothers: from left, Colin Chapman, Innes Ireland, Jim Clark and Alan Stacey



LAT

On the Brands Hatch podium with Vic Elford (left), Christabel Carlisle and Steve McQueen

mistake. He wasn't socially aware at all, he was uncomfortable with the jet-set elements of international racing, and he was very awkward in lots of ways when he wasn't in a car. But as soon as he got behind the wheel he was totally focused. You could ask him detailed questions about a car's behaviour and he'd be clear-minded and specific. When he came to London he lived in my flat, which we called the Scottish Embassy because Jackie Stewart used to stay there too. Out of the car, he couldn't make a decision to save his life. In the evening I'd say to him, 'Do you want to go to a movie? Which restaurant do you want to go to?' He could never make up his mind about anything. Sally Stokes wanted to marry him, but he couldn't decide whether to marry her or not. He got tougher later, tougher with Chapman, tougher with his girlfriends, but it wasn't easy for him."

In 1966 John did a single race in an Alan Mann Ford Falcon, setting the first 100mph saloon lap of Silverstone on his way to victory. He was second in the Monza 1000Kms with Masten Gregory in a GT40, and second in the Spa 1000Kms in a 7-litre Mk 2 with Frank Gardner. John and Frank were paired again at Le Mans, and of the eight 7-litre Mk 2s in the line-up John qualified third overall, behind Dan Gurney and Ken Miles and ahead of eventual winner Bruce McLaren.



"Getting rid of all the wealth I once had enriched me enormously"

"I'd practised the Le Mans start, I had the seat belts hanging ready and tied up with cotton, and my car was first to move. Then I stalled it. I got going again very quickly: Ford had told us not to race each other, but going down the Mulsanne on that first lap I passed a lot of people on the grass, got back up to where I should be. But we were out by Saturday evening. We'd had a clutch problem in practice and Ford said they'd fixed it – Alan was doing all the chassis set-up, but Ford were doing the engines and running gear themselves – and after six hours the clutch was done for. I was always unlucky at Le Mans: the only time I ever finished was that first year with Jimmy in the Elite."

By now John realised that motor racing had changed. It was serious big business: and, of course, it was still very dangerous. The previous September Jack Sears's career had ended in a life-threatening crash testing a Lotus 40 at Silverstone. In April Walt Hansgen was killed at Le Mans, and in August Ken Miles died at Riverside. It was time to take stock.

"I'd proved to myself what I set out to prove, and I wasn't interested in proving it to anyone else. Now I decided to look inside myself for life's answers. I had a manager running the farm for me, and I knew I'd never do it as well as he did. It took a staff of five just to run the house. And I was paying tax at 91p in the pound. So I sold the house and the estate, and moved to Switzerland as a tax exile.

"While I was racing a lot of us used to fly. At first I had a little single-engined Musketeer which I could land almost anywhere, I could drop it onto the Brands Hatch car park. Then I traded up to a twin-engined Beech Travel Air. After I'd stopped racing, I got my instrument rating and qualified as a commercial pilot, and kept a turboprop Aero Commander at Geneva Airport." Wanting to alter the way he approached life, John enrolled at the Esalen Institute in California, which focuses on humanistic education; he met his second wife Diana there. Then, for 10 years, he lived in an alternative community in upstate New York. Back in England, he started an executive training firm, Performance Consultants, to exploit what he calls the GROW model: Goals, Reality, Options and Will. Motor racing has remained a closed chapter, although he has twice been invited to the Goodwood Revival and raced a Cobra and a Mustang. "It was fun meeting people I used to know, but I wasn't comfortable with the racing, I didn't really enjoy it."

But in 1990, 24 years after he had stepped out of the cockpit for seemingly the last time, John did return briefly to motor racing. Aged 52, he decided to accept an invitation to drive a monstrous 8.1-litre McLaren M8F Can-Am car in three historic events. "At Montlhéry I finished third. At Donington Park I finished second. Then came Silverstone, with a Saturday race and a Sunday race. Charlie Agg, who was the top guy then in a similar M8F, beat me on Saturday by a length. So I simply had to win on Sunday. I stayed in my hotel room as long as I could before the race, because I didn't want to be among all the noise and the tension and the people. I had my son Jason with me, who was six years old at the time. About an hour before the race I'd got my overalls on and I was pacing up and down a bit, and Jason said to me, 'Why are you nervous?' Then he went to the bedside table where there was a pad and pencil by the phone, wrote something on the pad and pushed it into my hand. I looked at it, and he had written: 'Believe in yourself.' Six years old. I was incredibly moved. Fortunately he hadn't been to school at that point, because if he had he would probably just have written, 'Good luck Dad.' I thought, even if I can't believe in myself for me, I can do it for him.

"I'd worked out that I had to get ahead of Charlie on lap 1, braking for Copse. But he had a five-speed gearbox to my four-speed, and at the start he accelerated out of reach. So I had to do it on lap 2. I believed in myself, and I did it, round the outside of Stowe. And I won the race. Jason is a film-maker in Hollywood now, and he doesn't remember writing that. But I use it in my leadership training as an example of how, if you truly believe in yourself, you almost can't lose. Psychologically, self-belief is the hardest thing. Maybe I'd forgotten that I started racing in the first place in order to find self-belief."

Our lunch long finished, John is still talking across empty coffee cups on subjects far removed from racing: being pursued by the Secret Service in Zurich, spending five weeks in an artificially-induced coma after a 60mph skiing accident, and what he calls "channelling" – communicating with intelligence from another dimension. "The important thing is not where it's coming from, but what to do with what you're being told. The whole universe is a sort of intelligent soup, and each of us is a tiny molecule in that soup." I confess to being out of my depth here, and these are subjects outside the context of this magazine.

John now lives alone in a small, unpretentious flat, a far cry from the country mansion in which he grew up, and concerns himself with understanding how lives should be lived responsibly, to the general benefit of humankind. "There is so much stuff in our brains that we don't use and don't explore. We have all this technology now, but we don't have the wisdom to use it responsibly. I don't regret the loss of Orsett Hall, I don't miss my plane, my boat on Lake Geneva, my house in the Bahamas. Getting rid of all the wealth I once had has enriched me enormously. Life is a journey, and I wouldn't want to stay in the same place.

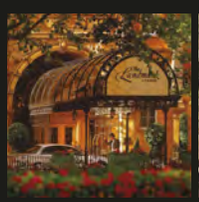
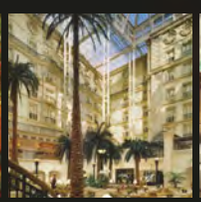
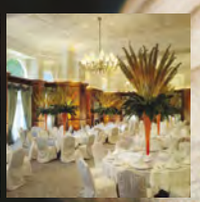
"I was very lucky to race when I did. We still had the old Nürburgring, the old Spa, it was before Jackie Stewart came along and shortened all the circuits. Rightly so, of course, because of the hugely high death rate at the time. But because I was racing then, I was living through the greatest experience imaginable. They were vintage days."

EXCLUSIVE READER EVENT

Join *Motor Sport* for dinner with

SIR JACKIE STEWART OBE

at The Landmark Hotel, Marylebone

Subject to availability The Landmark London can offer rooms to *Motor Sport* readers at the special rate of £220 per room, per night. This rate is exclusive of VAT and breakfast. Guests can call The Landmark London to make their reservation on 020 7631 8222, quoting "Dinner with Sir Jackie Stewart".

LIMITED NUMBER OF TICKETS LEFT!

On Wednesday December 5, 2012, *Motor Sport* will be hosting an exclusive readers' dinner with three-time Formula 1 World Champion Sir Jackie Stewart OBE

Motor Sport Hall of Fame 2013

Exclusive news about the 2013 *Motor Sport* Hall of Fame will be announced on the night

The evening will take place in the stunning surroundings of the five-star London hotel The Landmark, in fashionable Marylebone. A drinks reception will be held at the 'twotwentytwo' bar followed by a three-course dinner in the historic Drawing Room.

After dinner you will have the opportunity to join an open Q&A discussion with Sir Jackie, *Motor Sport*'s editor-in-chief Nigel Roebuck, and editor Damien Smith. The evening will finish with a competition to win a pair of tickets to the 2013 *Motor Sport* Magazine Hall of Fame, which takes place at the Royal Opera House on Monday February 25, 2013.

To book your tickets call +44 (0)207 349 8472 with your subscriber reference number.
For group bookings please contact us.

Tickets are priced at:
£120 for subscribers
£130 for non-subscribers

For more information go to:
www.motorsportmagazine.com
or email:
readersevents@motorsportmagazine.com

WHEN: **Wednesday December 5, 2012**
TIME: **6.30pm – 10.30pm**
WHERE: **The Landmark Hotel, Marylebone**

Private View

A 'You Were There' special

After being ignored for decades, these slides offer a rich glimpse of familiar faces and cars

David Baxter has been a faithful *Motor Sport* reader, and pretty regular correspondent, since the 1950s, when he watched Giuseppe Farina drive the Thinwall Special at Charterhall in 1953. (It's hard to imagine what the Italian ace thought of that bleak Scottish airfield...) David collected the magazine from 1952 on, but sadly, having more recently retired to a vineyard in the Dordogne (his wife is a professor of wine), he lost all his back issues in a *dégât des eaux* when a pipe burst. Luckily he had already bought a set of the *Motor Sport* archive DVDs so he can still enjoy all the old stuff.

Over the years David attended scores of races around Britain, majoring on Formula 1 and the big sports cars plus a bit of Formula 2 when it was still a clear stepping stone to Grands Prix. While living in Edinburgh a trip to Oulton Park meant going by car, but once he moved to London he often travelled to the tracks by public transport even after he owned a car. "You got the train to Northampton, a bus to Silverstone and then you walked – just like everyone else was doing. And there was a bus right to Brands Hatch." He especially liked going to Crystal Palace circuit, though: "it was the only race track that you could get to by Tube…"

At the tracks he carried his Canon SLR camera with telephoto lens for the action shots, but as so often it is the close-up images of cars and drivers off the track and off-duty that provide the most interest at this distance in time. After it was 'suggested' that he tidy his study, he made a selection from thousands of slides that he says he had not looked at for 40 years or more and sent some to us. He adds: "there must be hundreds of thousands of other photos that will never appear as their photographers don't read *Motor Sport*". Well, we like to think that with You Were There and Private View we're doing a public service... These are what took our fancy from David's offerings.

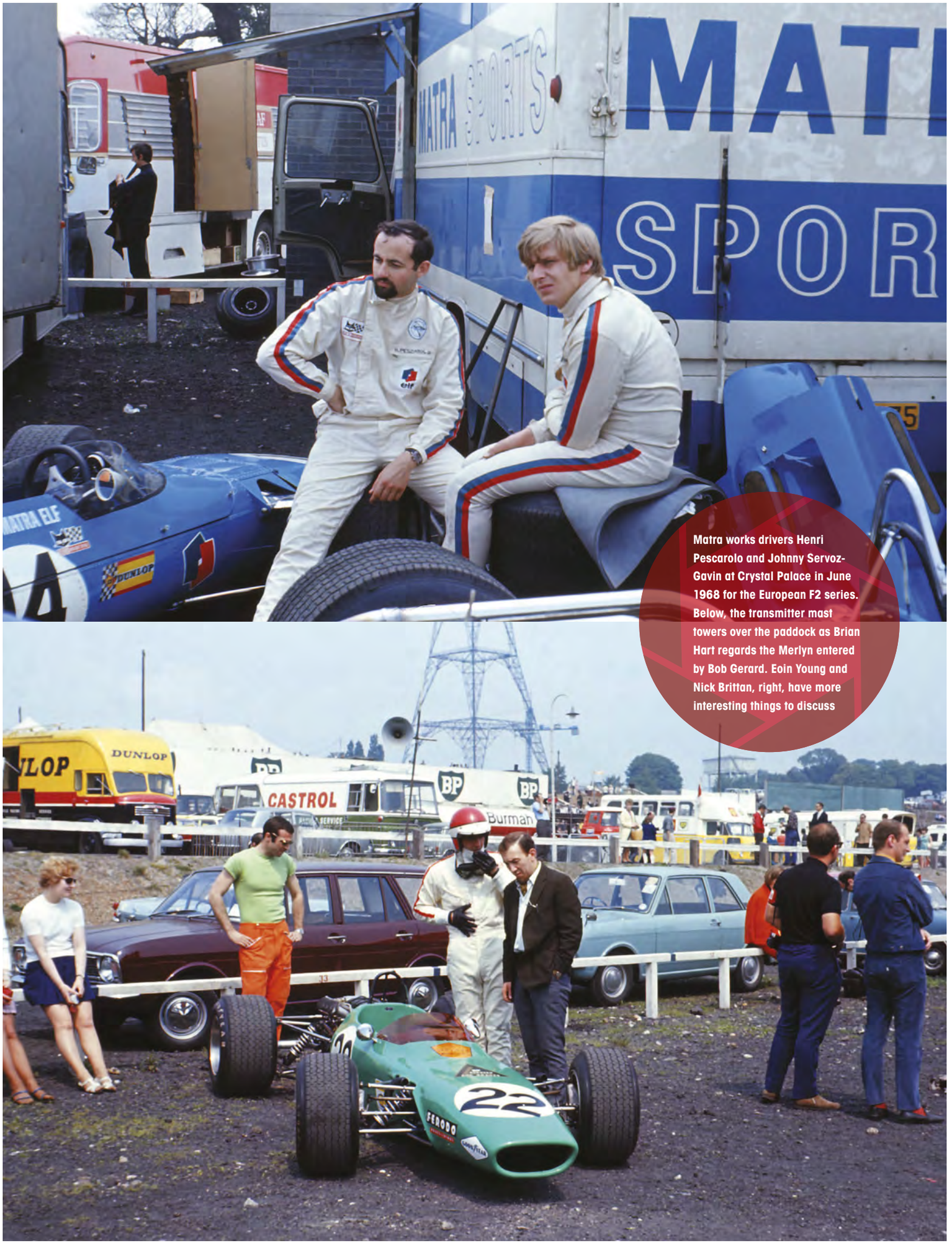








From top: Jo Bonnier shows what a tight squeeze it is boarding his Lola T70; at the same 1969 Silverstone International Trophy meeting Reine Wisell checks out the form with Bonnier; Jack Brabham on his way to victory; Pedro Rodriguez, driving a BRM in the F1 race, talks with David Piper who's in the Gp4 event



Matra works drivers Henri Pescarolo and Johnny Servoz-Gavin at Crystal Palace in June 1968 for the European F2 series. Below, the transmitter mast towers over the paddock as Brian Hart regards the Merlyn entered by Bob Gerard. Eoin Young and Nick Brittan, right, have more interesting things to discuss

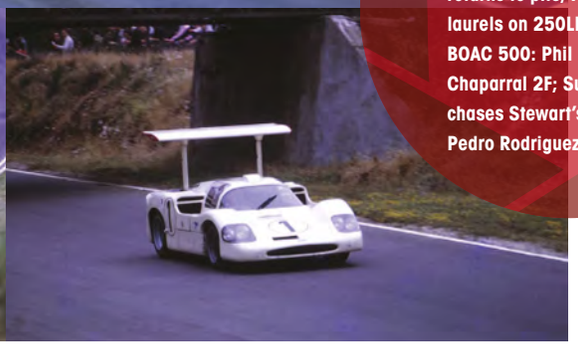














C/w from top: Mike Parkes won '67 International Trophy in Ferrari 312; McLaren steers through paddock; F2 runner-up Mo Nunn returns to pits; Piper shows off laurels on 250LM. Brands '67, BOAC 500: Phil Hill in victorious Chaparral 2F; Surtees' Lola chases Stewart's Ferrari P4; Pedro Rodriguez in Mirage









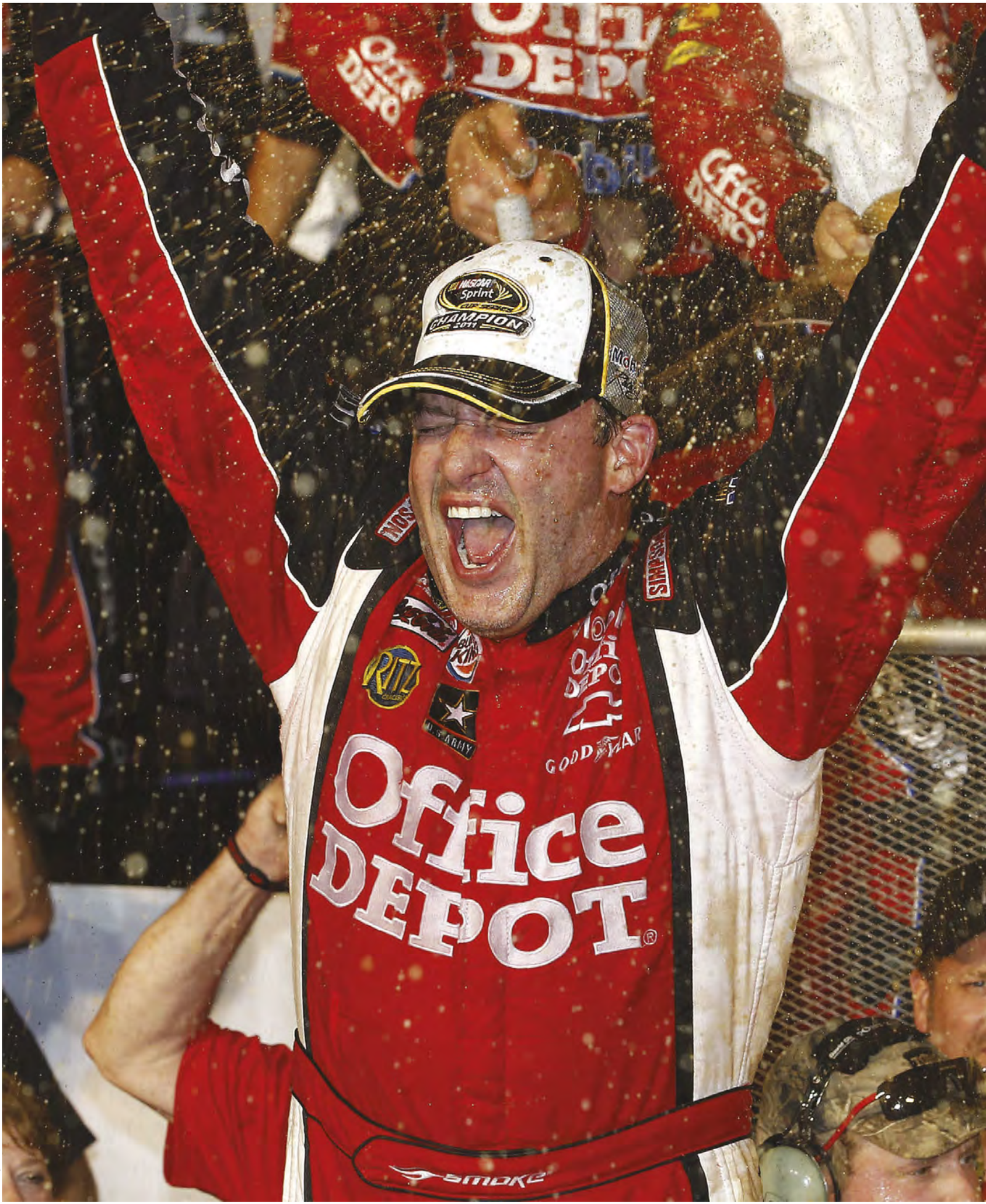




Brands, c/w from top right:1969 BOAC 500: Miles in Lotus 62; Amon in Ferrari 312P; Gerard Mitter's Porsche 908/2. Race of Champions, '68: Hulme's McLaren heads for track; Monte winner Vic Elford. 1967 Guards Trophy: Jo Schlesser, F2 Matra, and team-mate Pescarolo; Chris Irwin, Lola, makes for F2 grid







All images LAT

“I’ve been nuts and crazy all my life”

The short fuse can still spark up, but NASCAR’s ‘21st Century AJ Foyt’ has grown up. Today, Tony Stewart is US racing’s fastest-rising tycoon. Move over, Roger Penske

BY GORDON KIRBY

In his early forties Tony Stewart has arrived. Not only is he one of America's most respected race drivers but he is also a multi-faceted maven of the sport. A three-time NASCAR champion, Stewart owns and operates his own NASCAR Sprint Cup team, Stewart-Haas Racing, based in Huntersville, North Carolina, and also owns a separate Indiana-based open-wheel operation, Tony Stewart Racing, that competes in the World of Outlaws sprint car series and USAC sprint car championship as well as USAC's Silver Crown series.

Stewart also owns three Midwestern dirt tracks, including Ohio's legendary Eldora Speedway, and his growing collection of businesses includes a trucking company, a PR company and a radio-control car manufacturer. Stewart is a director of the successful International Motorsports Industry Show which takes place every December in Indianapolis. More than anything, Stewart loves to race, competing twice and sometimes three times every week in all manner of stock and sprint cars.





"This year has probably been one of the most fun years I've had in a long time," he remarks. "I'm in a really good place as far as race tracks and race teams and still driving. I'm having fun doing what I'm doing. I'm always going to be involved in racing. By the end of the season I will have run almost 100 races this year between all the Cup stuff, Modifieds, Late Models and Sprint cars. I'm having fun just being a bachelor and racing all the time."

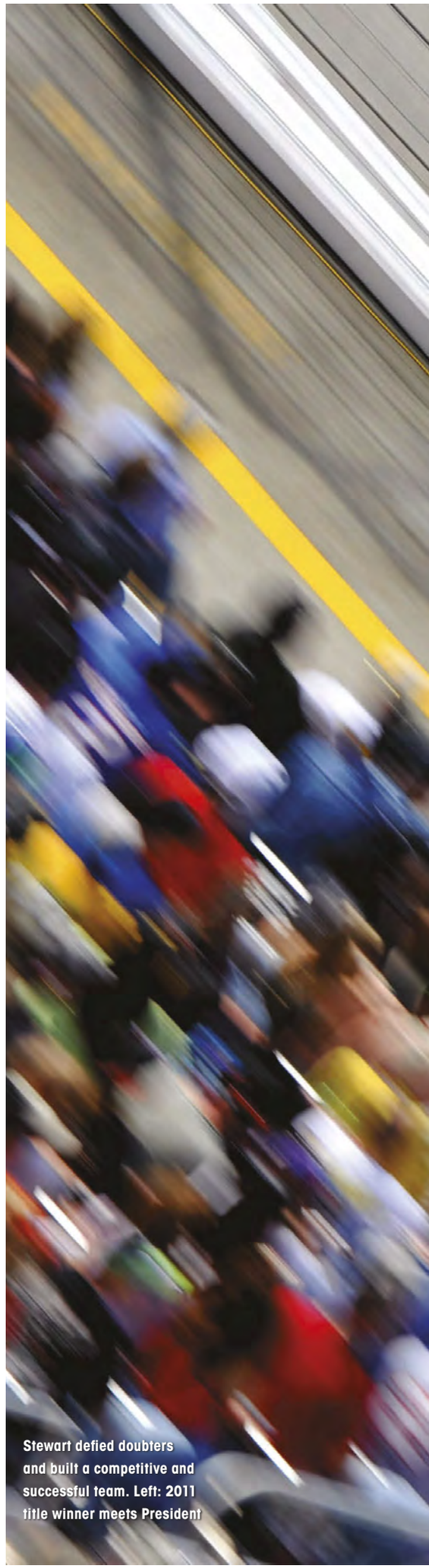
Stewart, who hails from the hill country of southern Indiana, came up through USAC midget and sprint cars, becoming the first driver to sweep all three USAC championships – midgets, sprint cars and Silver Crown – in 1995. He went Indycar racing the following year in Tony George's new IRL series and won the IRL title in '97 before making the move to NASCAR with Joe Gibbs. Stewart graduated in 1999 to NASCAR's first division Sprint Cup series with Gibbs's three-car Chevrolet team and was able to win races immediately, finishing fourth in the championship and running away with the Rookie of the Year award.

Two years later Stewart was runner-up to Jeff Gordon – also a former USAC sprint car champion – before taking his first NASCAR championship in 2002 and adding a second title in '05. Stewart continued with Gibbs through 2008, the year Gibbs switched from Chevrolet to Toyota, until after a tough season he announced he was leaving Gibbs to become CNC machine tool manufacturer Gene Haas's partner in Haas's unsuccessful team.

The new team would be known as Stewart-Haas Racing and would race Chevrolet cars and engines supplied by Rick Hendrick's Hendrick Motorsports team. Former Penske driver Ryan Newman joined Stewart-Haas to drive the team's second car, and conventional wisdom at the time was that Stewart had bitten off more than he could chew. But he won four races in his first year as an owner/driver and took the championship in 2011 with an inspired end-of-season run in NASCAR's 'Chase for the Cup' over the year's final ten races. Stewart thus became NASCAR's first owner/driver champion since Alan Kulwicki in 1992.

Beyond that rare achievement, Stewart stands apart from today's crowd of corporate drivers because he's very much his own man. During his early days in NASCAR he acquired a reputation for running his mouth off and squabbling with the media, although he's mellowed and matured in recent years as he's expanded his range of business interests. But Stewart remains a throwback to the days of Dale Earnhardt Snr, Cale Yarborough, Bobby Allison, Junior Johnson and the legendary Curtis Turner.

"We're a dying breed," Tony grins. "We're on the extinction list. Today, you've got to be a corporate guy to attract the sponsorship because that's what it takes to win these races. It's kind of a Catch 22. It's just like anything else. There's evolution and there are so ➤➤➤



Stewart defied doubters and built a competitive and successful team. Left: 2011 title winner meets President

Mobil 1
Office Depot
Office DEPOT
IMPALA

many great things to come out of it, but there are negatives that come with it too. It's maintaining that balance that's the hard part for NASCAR.

"I remember when I left for North Carolina and was moving down there for the first time. All my buddies were giving me the typical spiel that anybody gets that's going to do something that's bigger and better, whether it's a race car driver, or a baseball player, or basketball player. Everyone says, 'Don't forget who you are and where you came from. Don't change who you are'.

"I came back home about two months later and it was amazing because I wasn't any different, but they were. The way they treated me was different because of what I was doing. Those are the kind of things that happen that mean you have to fight to maintain who you are. That's a much harder task than anything.

"I think everybody eventually grows up, some quicker than others. It takes a lot longer for some and I'm a good example of that. It's funny that when I started in this sport the drivers were all clean-shaven. Now you've got Jimmie Johnson and Harvick and Jeff Gordon and a lot of these guys that will go with a two- or three-day beard growth. I guess I was the guy who started that, in the modern era at least, and it's been kind of fun to show people that we're not sitting in a fashion show. It's racing."



Stewart still likes speaking his mind: "You have to fight to maintain who you are". Below: Stewart-Haas HQ

"It's been kind of fun to show people that we're not sitting in a fashion show. It's racing"

Tony says he can't stop himself from frequently speaking his mind. "I've always been one of those people – if I'm passionate about something I'm going to voice my opinion. A lot of times people don't understand why you're doing it, but we have reasons. We're down here doing it every day. The people in the stands aren't always going to understand it. But we're always going to fight for what we think is right.

"I'm just a guy who loves racing and loves being a part of racetracks, race teams and driving. I don't have any ambition to do anything else. Everything we do in some way or form is tied to racing. The trucking company that we have was owned by a guy who owned sprint cars. That's how I got to know him. I used to race radio-control cars when I was younger and ended up buying the company from a guy who's one of my best friends."

Stewart says his patchwork quilt of companies took shape by chance. "There was never a plan," he observes. "Luckily, every opportunity came at a time when it made sense to do it. Other opportunities have come and gone that probably were good opportunities but it wasn't the right time for them.



"From the business side of it we've always said from day one that whatever business venture we're looking at has to stand on its own two feet. We're not going to rob Peter to pay Paul. As every new opportunity comes along we ask, 'Does this make sense to do? Is this something we want to do? Is this something we want long-term?' We look at it from different angles and ask how this fits our portfolio."

Stewart says the key to properly managing his small empire is having the right people running each business. "That's one of the things I learned from watching Joe Gibbs. It's about having good people in good positions. You have to hire people that you trust, and know that they know how to do their job. If you feel like you've got to be looking over their shoulders all the time, you've probably got the wrong guy.

"I got to watch first-hand for 12 years how Joe Gibbs does it. Joe is a guy who's won Super Bowl titles, NHRA championships and NASCAR championships. You aren't going to be successful at three major levels like that just through luck. It's because of good management and good leadership skills. If I wasn't with Joe for those years I don't think I could have done 90 per cent of the things we're doing now, outside of driving a race car."

The door to becoming a partner with Gene Haas was opened by Rick Hendrick, NASCAR's most successful modern team owner. "Rick came to me and said he thought it was a good opportunity for me," Stewart says. "I've been friends with Rick for a long time and I've always admired him, but when Rick came to me and told me about this opportunity I was really caught off-guard. I would never have dreamed that it was possible.

"Again, it was an opportunity at the right time. It wasn't that I was stale where I was, but I'd been with Joe for 10 years in the Cup series and we had been struggling for a couple of years. It seemed like a good opportunity for a change.

"You never know when your day as a driver is going to come to an end. You never know when hitting a concrete wall can change your plans. So to be able to have an opportunity with a guy like Gene Haas who believed in me was a pretty special thing."

One essential component was Rick Hendrick's commitment to supply Stewart-Haas with cars and engines, while more recently Stewart's crew chief from the Joe Gibbs team, Greg Zipadelli, agreed to become Stewart's competition director. "When everybody found out we were doing it, almost everybody thought we were nuts," Tony grins. "But I've been nuts and crazy all my life so it was staying true to who I am. But at the same time we did it

knowing that we had good people around us and we were putting together a package with people we trusted. Rick was a very big part of that. With the people that we put in place, it didn't seem like we were jumping off a cliff."

In fact, Stewart says becoming a team owner is the best thing that's happened to him. "I think it really helps you understand how the big picture works," he remarks. "I get to see it from a driver's perspective, from a car owner's perspective, and from a promoter's perspective. And I still get to see it from a fan's perspective because I'm still a race fan. I go to watch races when I can, or on TV or the internet. I'm in a unique position and I think that really helps me understand a lot of things that I was frustrated about when I first started in NASCAR.

"I don't think a lot of the fans really realise how hard it is for NASCAR to keep the balance in our sport. It's much, much harder than fans think. Everybody's always got an idea, but just because we think it's better, in the big picture it may not always be better.

"The one thing I've learned about NASCAR is there's a reason they do everything they do; it's not them just being stubborn. They want what's best for the sport, for the fans, for the drivers and the team owners. The hard part is keeping that balance."

I ask Stewart how he would explain NASCAR's incredibly competitive depth to race fans around the world who don't have first-hand knowledge of oval track racing. "Show them a qualifying sheet from Bristol," he says. "When you've got 45 or 46 cars qualifying within six-tenths of a second of each other, that's seriously competitive racing. They don't have more than three or four cars that qualify that close at a Formula 1 race. Another thing that's different is you can qualify on the pole for a NASCAR race and run 40th in the race, and vice versa.

"The thing that's different about our sport is it's a much shorter lap. There are two ends of the track that you've got to be precise on and that's what makes us have to be so precise. In Formula 1 or Indycar racing on a road or street course you can mess a corner up a little bit and lose a tenth but you've got 10 more corners to make that time up. Here, if you miss it, you've just missed it. You're really not going to gain that back because you've only got one other end of the racetrack.

"In NASCAR you have to be so precise every lap and deal with a car that has twice the weight of a Formula 1 car and half the downforce, half the tyre and half the engineering. With a big car like ours when you run alongside the others it really disturbs the behaviour of our cars. Two cars running side by side in Formula 1 really doesn't screw up their downforce, but it does with our cars because they're so big and because of the side force they make. When you're dealing with a heavy race car like ours with not much downforce and little tyre grip it's a very, very fine line of balance.

"In Formula 1 there are four or five teams every weekend that have a realistic shot of winning the race. You come to a Cup race and there are 15 to 18 cars that have a realistic shot. And with it being so close, if you're off a little bit, you're off a lot because the times are so close. It's the same, but different. If you took a Formula 1 track and put two ends on it, their times would be just as close as we are. It's the shorter course that means you have to be more precise.

"Another thing is we don't pull the *g*s with our cars that a Formula 1 car does. But in the middle of the summer when it's hot we're sitting inside a 135-degree car for three or four hours at a time, so it's physically draining."



Stewart enjoys racing other machinery; sponsor Mobil 1 also put him in a McLaren (below)

Rick Lane





Stewart's Chevrolet brought second NASCAR title in 2005

Even though he only did four laps, Stewart enjoyed the experience of driving Lewis Hamilton's McLaren F1 car at Watkins Glen in 2011. "We have our seats built through Hendrick and it was really impressive how they took their scans and computer model and gave it to McLaren and they made a perfect fit for me. I was absolutely amazed. We put an eighth-inch spacer on the heel blocks of the pedals because it had my toes pulled back to me a little too much. But that was all we changed. Everything was spot-on right off the bat.

"So I was very comfortable in the car, but the conditions weren't ideal and I only got in one run of four laps. But it was fun. The thing that really amazed me was just how good the brakes are. It's incredible! When you see crashes in the corners in Formula 1 you ask, why are they running into each other all the time? But after driving one for four laps I understand it now, because the braking zone is a quarter of what our braking zone is. You've got to get a pass done and make a lot of ground up in a very short distance."

In closing, Stewart philosophises about how much he's learned about life in recent years. "Everything that we do, all the evaluations we make as people, whatever topic it may be, is based on whatever knowledge we have. I don't care whether it's NASCAR, or the presidential race, or PTA meetings, we are only going to see it from one side based on the information we have.

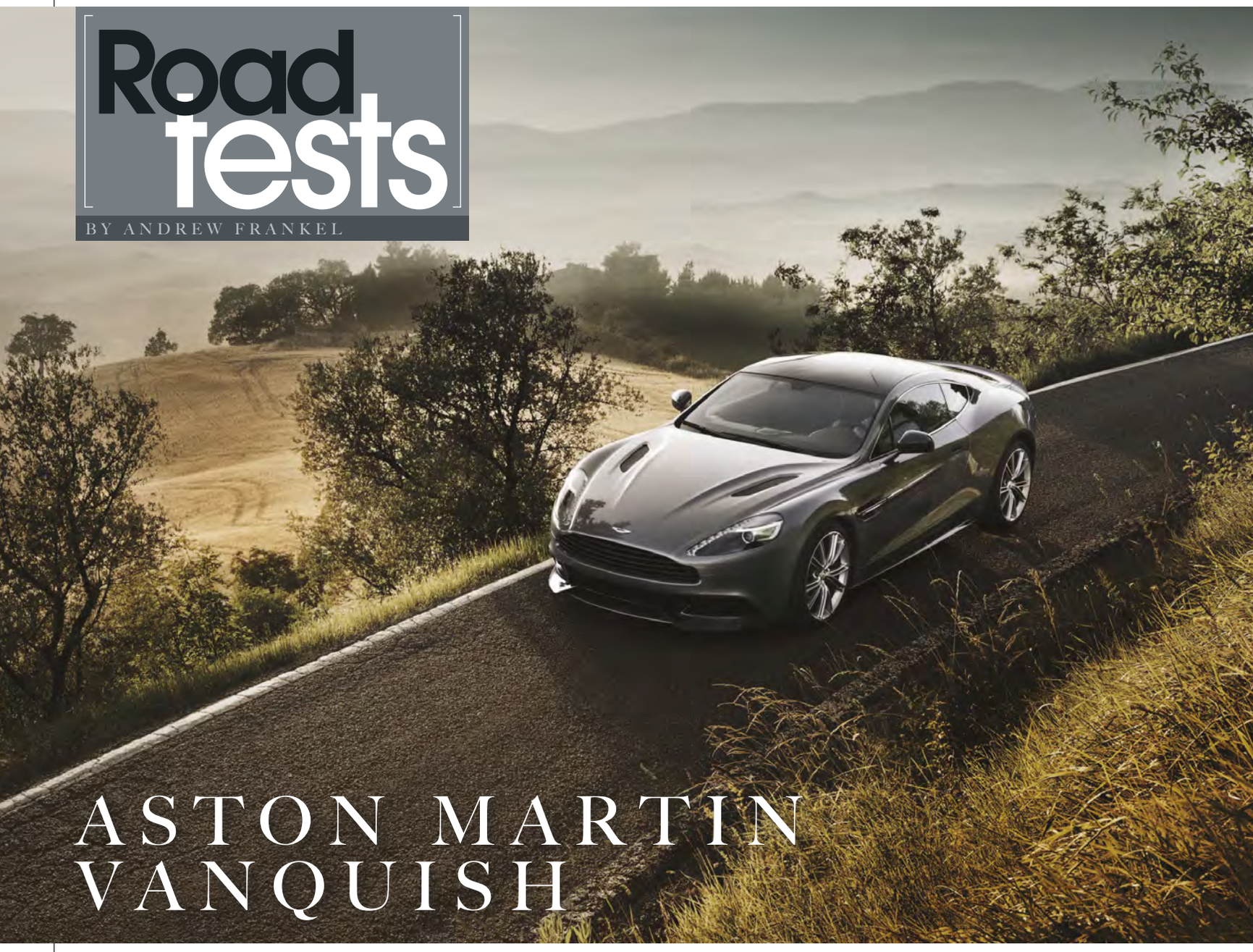
"There's no driver, no car owner in this sport that fully understands all NASCAR has to do in order to do what we do every weekend. It's easy for us to make our judgements but the hard part is explaining how much more there is to it than the face value in what you see. There's so much more information than what we each have. There's always more to it than you can see.

"To truly analyse something you have to have all the information and nobody's ever going to have all the information. That's what makes you admire guys like Roger Penske who run major corporations. It's hard enough to run one company and it's harder when you have to appease everybody, like NASCAR or any other sanctioning body has to do. When you run a business it's literally about numbers at the end of the day. But this business is also about personalities and emotions and entertainment, and that makes it a much harder business to run."

Still a punk racer at heart, Tony Stewart has grown into much more than that. Long may his considerable influence on American racing continue. Ⓜ

Road tests

BY ANDREW FRANKEL



ASTON MARTIN VANQUISH

Nine years ago Aston Martin produced the DB9, and around the world all those who'd yearned for an Aston Martin that was at last as good to drive as it sounded and looked, breathed a collective sigh of relief. No more excuses, no need to rely on old-world charm and men with pencils behind their ears: this was a thoroughly modern Aston, as good as its best rivals could muster.

Better, in fact. Ferrari made the mistake of launching the 612 Scaglietti in exactly the same week, and to get out of the Ferrari into the Aston was something of an epiphany: the DB9 wasn't just far cheaper and more attractive than the 612, it was a palpably better product. Little did we know that while the 612 would be replaced by an entirely new car, the FF, some 18 months ago, a merely updated DB9 would still be with us for the foreseeable future.

Instead, says Aston, its properly new car is the Vanquish you see before you. Designed to replace the flagship DBS after just five years in the market, the new Vanquish is on sale now for just £5 less than £190,000.

I'll address whether it's worth it or not in a moment. For now however, there is an issue of perception. The problem Aston has faced since it launched the DB9 is that every front-engined V12 coupé it has introduced has appeared





FACTFILE

ENGINE: 5.9 litres, 12 cylinders, petrol
TOP SPEED: 183mph
PRICE: £189,995
POWER: 565bhp at 6750rpm
www.astonmartin.com

as merely a variation on the original theme. Changing the name to Virage or DBS smacks only of window-dressing, a way of charging more money for much the same car.

Superficially at least, the Vanquish seems little different. Naturally Aston Martin is as keen for its shape to evoke images of the £1.2 million One-77 supercar as it is anxious to distance it from the DB9. But it still looks like a more purposeful but less pretty DB9.

When you open the door you'll see the famously gorgeous but illegible DB9 instrument pack looking back at you, and when you lift the bonnet, there will be a 5935cc V12 motor just as there was not only in the first DB9 but in the DB7 Vantage before that, a car that dates



Not just a pretty good hauler, the new RS4 has a wild edge

AUDI RS4

I'D BE WILLING TO WAGER fewer than one in 10 owners of the new Audi RS4 ever discover all there is to know about their new car. I think most will think they've bought a good-looking, faintly practical (it's only available as an estate), high-performance family hold all. And they wouldn't be wrong.

But sometimes certain cars hold something back, a side to their character that, if not coaxed into the open by exactly the right instructions and environment, will remain hidden forever. Emphatically the RS4 is one of these cars.

Most of the time it is as we have come to expect fast Audis to be – a powerful, good-looking, well built but ultimately somewhat anodyne device. A machine more to admire than adore. For many that is all they want and to them I commend the car.

But what if you want something extra? A car that squeezes your heart, one that actually involves you in the process rather than leaving you on the sidelines? In the past you'd either have to buy a mid-engine R8 for double the money and half the seats, or bang on Mercedes' or BMW's door instead.

No longer. At last a new philosophy seems to be creeping into Quattro GmbH, the Audi-owned company that engineers all its RS and R branded cars.

For a start this new RS4 is astonishingly quick. I don't know who was at the wheel the day they recorded the 4.7sec time for the 0-62mph but I fear he may have been half-asleep: the car feels far faster than that. It's relentless too, with double-clutch gearshifts coming at you like machine gun fire. And it stirs the soul, once you've wrung the motor past 8000rpm, a pastime to which it appears completely addicted.



FACTFILE

ENGINE: 4.2 litres, eight cylinders, petrol
TOP SPEED: 155mph (limited)
PRICE: £54,925
POWER: 444bhp at 8250rpm
FUEL/CO2: 26.4mpg, 249g/km
www.audi.co.uk



But the real news is that it also handles quite well. A Mercedes C63 AMG is still better balanced, but at least the Audi chassis now offers something other than undiluted understeer should you be a little over-ambitious with your entry speed. It can be neutralised in the dry and, when it's wet, even coaxed into oversteer.

The RS4 is still neither the most capable nor the most charming car in its class. If it were anything like as entertaining at normal speeds as it is on the limit, it would be a transformation. As it is, a substantial step in the right direction will have to suffice for the moment.

back to the last century. Look closer still and you'll see that even the wheelbase of the Vanquish is no different to that of a 2003 DB9.

The charge therefore is that the Vanquish is not a new car after all, but another reworking of an existing theme, dressed up and renamed to justify its place in the line up and price in the market.

Actually it's not as simple as that. There is rather more to this Vanquish, and while only an Aston employee might call it a completely new car, the truth is that the Vanquish represents the biggest redesign in the history of the V/H platform which has underpinned all Aston product since the DB9. In fact, and unlike the only mildly modified and now discontinued Virage, the Vanquish really does earn the right to be thought of as a model distinct from the DB9.

At its heart lies a tub Aston claims is 75 per cent new. The bonded aluminium superstructure the company has been using for nearly 10 years is strong and highly versatile, allowing it to be used for the two-seat Vantage, four-door Rapide and everything in between, but it is also heavy and not space-efficient. But a careful reworking incorporating large amounts of carbon fibre has provided critical extra legroom in the cabin, improved boot space and a 25 per cent increase in torsional rigidity. It has also enabled the engine to be lowered. Carbon fibre is now also the only material used for the bodywork, unlike the DBS that used carbon only for bonnet, boot and front wings.

The engine has also been substantially breathed upon. Back in the days of the DB7 Vantage it produced just 414bhp but with the latest battery of improvements including variable valve timing on both the induction and exhaust side, improved breathing and fully machined combustion chambers, that figure now stands at 565bhp for an unchanged 5.9-litre capacity. It sounds impressive only until you appreciate that the new V12 in the Ferrari F12 displaces less than a third of a litre extra capacity yet generates some 730bhp and deploys it in a car weighing over 100kg less.

But perhaps this is not a fair comparison. First, the Ferrari is over £40,000 more expensive (though that's unlikely to dissuade many shopping in this region of the market) but also the Vanquish is an unashamed GT car, not an out and out sports car like the Ferrari.

It's a role to which the Vanquish seems well attuned. If you're 6ft 4in like me, you'll appreciate being comfortable for the first time in a V12 Aston. But irritatingly, the steering column has not been given a commensurate increase in reach so it's now a slightly uncomfortable stretch away. The dash is an odd blend of old and new: there's a new centre stack with, heaven be praised, an at least reasonable navigation system at last, but as mentioned earlier, those dials are just difficult to read.



Vanquish builds on existing platform to offer its best GT for years



So you press the still-annoying glass key into the dash, hear the rejuvenated V12 bark approvingly into life, tug a paddle, release the fly-off handbrake and head out.

At first the Vanquish is a little disappointing. It now has a launch control feature which I imagine is the only reason it's able to post a 4.1sec 0-62mph time. It just doesn't feel that quick: pleasantly and invigoratingly rapid for sure, but stone-me-I'd-better-lift-now like even the F12's predecessor the 599GTB? Not at all. It's not immediately clear why this is. Its power to weight ratio is better than a Nissan GT-R which feels appallingly fast everywhere. For want of any other culprit, I'm blaming the old six-speed auto gearbox. A double-clutch transmission that would improve performance, response, shift times, economy and emissions is clearly needed.

And then you remember this is an Aston Martin, a marque that's rarely if ever been concerned with being the fastest of them all. In here it's all about the quality of the experience, not how many tenths you can save from one point to the next. What Aston has created is its most convincing GT since the DB5. Forget the



numbers and savour instead the feel of the steering, the classiness of its damping, the exceptional balance of its chassis. It's refined at speed, and the near-doubling of its boot capacity is important too.

During my brief period in the car I even managed a few laps on a track, an environment for which it was not designed, and it still felt at home. Far friendlier than any Ferrari, a stranger to understeer and a lover of gentle drifts, its message was that it was on your side, which is just the kind of information you need when the back breaks loose in someone else's £190,000 supercar.

Unlike a Ferrari F12, the Vanquish is not a car to fall for the moment you see it. Its charms are less obvious and, yes, less potent too. But they are there and they are strong: this car is more changed for the better than it looks, and the price has been cleverly positioned between rival Bentleys and Ferraris in a little niche of its own.

In many ways it feels like a return to Astons of old, which relied not on cutting-edge technology as did the DB9 when it was new, but on a certain, undeniable old English charm. Time alone will tell if, unlike its ancestors, Aston Martin can harness that charm and turn it into sales success.



It takes that little word on the air dam to reveal how different the B3 GT3 is inside

ALPINA B3 GT3

ALPINAS HAVE RARELY resonated with me. In their desire to be different to the BMWs upon which they are based, they have often ended up as somewhat flawed and often contrived machines. When BMW goes about designing a high-performance car, most things are the way they are for a reason and you mess with them at your peril.

But in recent times Andy Bovensiepen's turn at Alpina's helm has produced some far more sure-footed results. First there was the D5 saloon, a diesel-powered alternative to the M5 with no less real-world performance, better handling, a finer ride and, of course, a massive fuel consumption and overall range advantage.

Now comes this B3 GT3 which, for want of a better description, is the M3 Alpina would make were it asked. Like the current M3 it's spun off the E92 3-series coupé body that in saloon form has already been replaced by an all-new model. But unlike the 4-litre M3, the GT3 uses BMW's 3-litre twin-turbo motor boosted to 402bhp, a mere 18bhp short of the V8 M3's output but with over 100lb ft of additional torque.

Space is short so I'll cut to the chase. It's a delightful car, slightly slower but far nicer to drive than the M3. I'd usually always back a normally aspirated V8 against a forced induction six, but the Alpina not only delivers its power seamlessly, it also applies it so well it seems a far friendlier car than the sometimes tricky M3.

Indeed I drove in conditions both fair and foul and found it never less than confidence-inspiring. The smooth power delivery is impressive, but no more so than the deftly damped ride, communicative steering and the effortlessly accommodating nature once on the limit.

Sadly production of the B3 GT3 is limited to just 99 units and at £66,950 you'll pay nearly 911 money for it. But if you want a fast, sophisticated, exciting, spacious, civilised and extremely rare coupé, I'd recommend a test drive sooner rather than later. I don't imagine they will be around for too long.

FACTFILE

ENGINE: 3.0 litres, six cylinders, petrol, twin turbochargers
TOP SPEED: 186mph
PRICE: £66,950
POWER: 402bhp at 6000rpm
FUEL/CO2: 29.4mpg, 224g/km
www.bmwalpina.co.uk





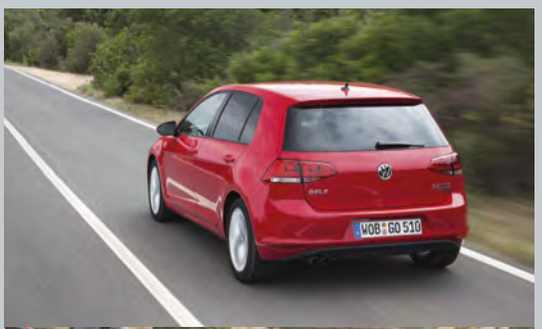
Looks familiar, but the new Golf is larger and lighter than the outgoing model

VOLKSWAGEN GOLF 2.0 TDI SE

STEPPING INTO A NEXT generation Golf is like slipping into an off-the-peg suit and discovering it feels like one tailored to your own specification in Jermyn Street. It's brand new, yet utterly familiar. It fits perfectly yet is identical to the next dozen on the rack. And you can go anywhere in it, be seen by anyone in any context and no one is going to turn their nose up.

VW has been mastering this art for nearly 40 years but it is possible its latest attempt will also be remembered as its greatest. This might seem odd since even I, someone who professes to do this for a living, struggle to tell its lines apart from those of the car it succeeds, but beneath that so familiar shape lies an entirely new and utterly transformed machine.

The 2-litre turbodiesel car I drove is larger yet lighter than the car it replaces, faster yet far more frugal, all of which represents good, solid progress. But it is not until you climb aboard and drive the thing that you will actually appreciate what VW has achieved here.





The driving environment is masterly, functional, yet luxurious to an extent not hitherto seen in cars of this size outside the realms of BMW, Audi and Mercedes. The quality is not the next best thing to that offered by the premium German brands, it's at least as good and in some cases better.

The 2-litre diesel sounds and operates much like the last one. But while performance is appreciably better, fuel consumption has been transformed, offering an on-paper improvement of fully 10mpg.

But impressive as it looks on paper, on the road it is better still. It is the ride quality that strikes you first. This humble little hatchback actually glides. There are full-size expresses, the BMW 7-series and Jaguar XJ among them, that don't offer such polished low-speed bump absorption. If you blindfolded your passengers and drove them around town, they'd think they were in a luxury car.

But it's not. The Golf is a medium-sized family hatch with an unlikely appetite for the open road. In its leap from one generation to the next it has left over 100kg of mass behind (largely thanks to extensive use of aluminium in the all-new platform it sits on) and you can feel it every time you turn the wheel. The car always feels on its toes, controlling its roll rates, keen to keep to an apex and always receptive to mid-corner changes of plan. It feels sporting in all the good ways: its steering provides great confidence, its chassis balance enough adjustability to make the car feel agile on the limit. Past negatives, particularly the harsh ride and aggressive off-centre steering response, are nowhere to be found.

This may be a somewhat gushing review but it's written from the perspective of someone who got into the Golf immediately after driving the all-new Audi A3 and Mercedes A-class and a year-old BMW 118d, and found himself convinced the Golf was the best of the lot. The irony is the Audi is based on the same running gear but is nothing like as good to drive in practice.

So if you're an old Golf driver wondering whether to renew, there's really no debate if you can wear the high prices of the new car. The bigger issue confronts those who'd traditionally shop among the more exalted brands. Will you continue to do so in the knowledge you may end up with an inferior product, or will you buy the best family hatch of its generation? I'd get the Golf every time.

FACTFILE

ENGINE: 2.0 litres, four cylinders, turbodiesel

TOP SPEED: 134mph

PRICE: £21,960

POWER: 148bhp at 3500rpm

FUEL/CO_2: 68.9mpg, 106g/km

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Sidetracked
WITH ED FOSTER

1000mph on land – that's what the team behind the Bloodhound SSC Land Speed Record car hopes to achieve in 2014.

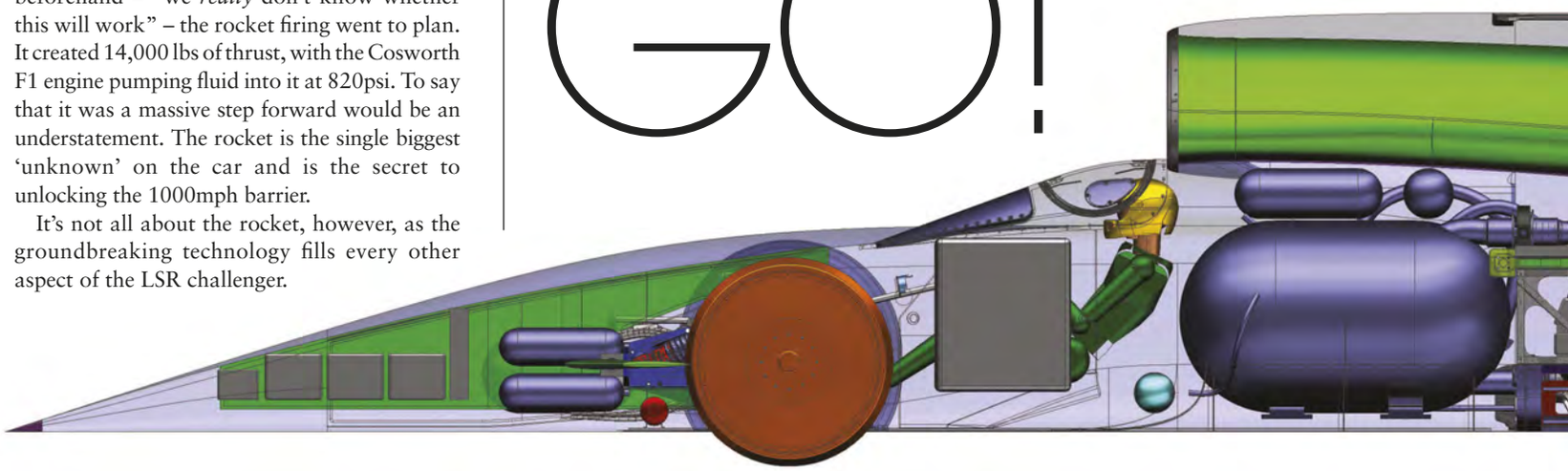
It's a massive target, as any of the Bloodhound team will tell you. The current record, which was set by Thrust SSC in 1997, is 763mph. However, the extra 237mph needed to break the 1000mph barrier means employing groundbreaking, unproven technology.

It was one such technology that I went to see being tested on October 3. The hybrid rocket, which will power the car alongside a Eurojet EJ200 engine, was tested for the first time down in Cornwall and despite some uncertainty beforehand – "we *really* don't know whether this will work" – the rocket firing went to plan. It created 14,000 lbs of thrust, with the Cosworth F1 engine pumping fluid into it at 820psi. To say that it was a massive step forward would be an understatement. The rocket is the single biggest 'unknown' on the car and is the secret to unlocking the 1000mph barrier.

It's not all about the rocket, however, as the groundbreaking technology fills every other aspect of the LSR challenger.

ALL SYSTEMS GO!

A successful rocket test fires Bloodhound towards its 1000mph goal



PROPULSION

1) The EJ200 jet will produce 20,233 lbs of thrust and the hybrid rocket 27,427– a total of 47,660.
2) Since the jet engine was designed as an integrated component of the Eurofighter Typhoon, in essence its control systems have had to be 'tricked' so that it still thinks it's fitted to the Typhoon and flying at altitude.

While Thrust SSC used two jet engines, it was decided early on that a rocket would be needed to push the new car up to 1000mph. A Typhoon jet can do over 900mph with two EJ200s, but that doesn't have wheels dragging along the ground.

The idea is straightforward enough: use the jet engine to get to 350mph, then ignite the hybrid rocket, which will gradually build the speed over the next 5.5 miles to 1000mph. Straightforward? Well, not really. Not only will the rocket require a Cosworth F1 engine to power its fuel pump, but with two types of power there is more to go wrong. Especially since the hybrid rocket – which uses a mix of solid fuel and liquid oxidiser – has been designed like no other.

AERODYNAMICS

1) At 1000mph every square metre of bodywork will be subjected to 12.5 tonnes of force.
2) If at 750mph Thrust SSC's nose had pitched up by even half a degree it would have taken off at 30*g*. The Bloodhound will be going 250mph faster.

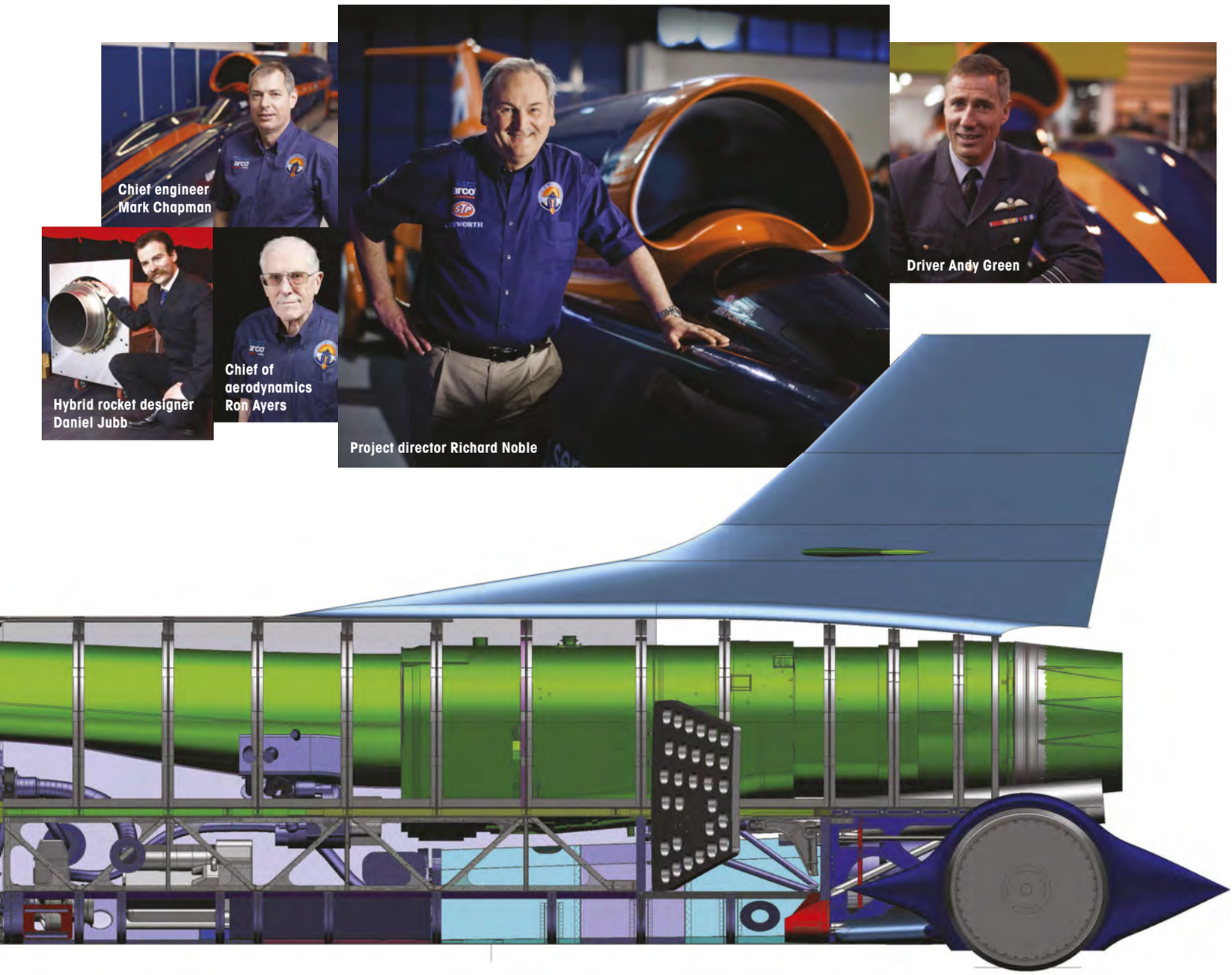
One of the biggest challenges for the chief of aerodynamics Ron Ayers, who also worked on the Thrust SSC and JCB Dieselmax projects, was how to package the jet engine and the rocket. Initially the rocket was put on top, but that was pushing the nose of the car into the ground. The winglets at the front could counteract this, but if there was a hydraulics failure the winglets would have to have a default position. A default could work at high or low speed, but not both. The rocket and jet have since been switched over and the design of the car finished.



CHASSIS

1) The car needs to be able to handle the same power as 180 Formula 1 cars.
2) The suspension loads alone will peak at 30 tonnes.

The chassis, which is in the process of being built, consists of a one-piece carbon-fibre front and then a spaceframe rear. A big hurdle has been creating a car stiff enough to endure the forces at 1000mph. There aren't even aircraft that would be stiff enough. "We are talking about a vehicle," said chief designer Mark Chapman, "that is getting on for 46ft long, weighs over seven and a half tonnes and has to deal variously with 47,500lbs of thrust, going through the sound barrier, 2+*g* acceleration followed swiftly by 3+*g* deceleration, and going over the odd bump. It's not so much a racing car, more a supersonic truck!"



ROCKET

1) Daniel Jubb, the 28-year-old rocket developer, was 13 years old when he started his rocket company Falcon Project and is entirely self-taught.
2) The rocket will produce 186 decibels – 25 times louder than a 747 taking off.

Once the decision was made that a rocket would be needed to reach 1000mph, the team then had to chose between solid fuel, like a firework uses, and liquid fuel – like that used by the Saturn V rocket, which launched six manned lunar landings.

The problem with solid fuel is that once lit, you can't put it out. That's not a problem on a space vehicle since you can jettison it; on a car it's not so easy. The liquid fuel rocket has its own challenges since it works by mixing two highly flammable liquids together – if either of those get loose "you've got a potential explosion in the making," says driver Andy Green.

Enter Daniel Jubb and his hybrid rocket that he would develop with Computational Fluid Dynamics – a world first – so that he could gauge how the solid fuel burned and shape it to create maximum thrust.

"We're using a combination of technologies," says Green. "We've got solid fuel in the four-metre tube. The fuel's called hydroxyl-terminated polybutadiene (HTPB), which is basically rubber – it's like aircraft tyre rubber. It's not explosive, it's barely flammable. However, heat it up to 600 centigrade with pure oxygen and it burns excellently."

A tank of concentrated hydrogen peroxide (HTP) is forced through a silver catalyst pack, which decomposes it into steam and oxygen at 600 centigrade, igniting the fuel. It's not without its problems, though.

"With HTP," says Jubb, "you can handle it like water. You might start off really paranoid, but then you know you can stick it in a cup, you can pour it. So you gradually become more complacent… and then it bites your head off. It's all about maintaining paranoia." This aside, if there is a problem with the rocket the flow of HTP can be shut off and the rocket stopped.

The rocket, which was two sets of blast doors away from the 400-strong crowd at Newquay Cornwall Airport, was merely a step towards the full-size version that will be used in tests next year and the proper run in 2014. The rocket, which had oxidiser pumped in at 820psi rather than the 2014 level of 1100psi, fired for seven seconds – it will need to run for 20 seconds come the actual run. On October 3 it was the loudest man-made noise in the world.

WHEELS



1) Each wheel will be stamped out by a 30,000 tonne forge and will weigh 90kg.
2) At 1000mph the aluminium wheels will rotate at 10,200rpm. An F1 car's wheels at Monza only reach 2600rpm. This will create 50,000*g* at the rims.

THE RUN

1) Bloodhound will accelerate to 1000mph and back down to 0mph over 12 miles in two minutes.
2) At full speed Bloodhound will cover 4.5 football pitches, laid end to end, per second.

THE TRACK

1) One option was Verneuk Pan in South Africa. When Andy Green visited it in 2009 he could still see the track left by Malcolm Campbell in 1929 when he achieved a mean speed of 218.45mph.
2) The decision was made to use Hakskeen Pan in South Africa. 317 volunteers have since cleared 6000 tonnes of rocks from a 24.1 million square metre area. The same as clearing a two-lane road from London to Moscow.



EDUCATION

1) Over 5300 schools, colleges and universities have teamed up with Bloodhound in four years.
2) In 2012 alone 55,000 pupils have engaged with the project.

Key to the Bloodhound project is the feedback it is giving to schools all over the world. Indeed, if it weren't for this, Richard Noble never would have gone ahead with it. In 2006 he met with Lord Drayson and asked for an engine from the Ministry of Defence. They didn't get that, but Drayson told them how much the MoD was struggling to recruit young engineers.

"The reason for this," said Noble, "was that back in the 1960s we had a fantastic aerospace industry that created these wonderful aeroplanes – the Concorde, the BAC TSR-2, the Vulcan bomber. All these planes were flying over schools and inspiring the kids. That stimulated a large number of engineers and scientists. What Lord Drayson wanted us to do was to create a project that we could run through the schools and inspire kids to get into engineering. That's what we've done.

"When we run the car we'll be downloading 500 channels of information, and over in South Africa five 60m-high radio masts have been put up in order to share those with the world."

"The reaction to the Bloodhound's education programme has been unprecedented and, because the content is so good, schools are now paying for it meaning that the education side of the project is financially self-sufficient." At the time of writing the entire Bloodhound project had cost £8.5 million, all sourced through sponsorship and donations.

OTHER CHALLENGERS

Thanks to Thrust 2 and Thrust SSC Britain has held onto the Land Speed Record for 28 years. There have been challengers in that time, but none have surpassed Richard Noble's efforts. These are the current challengers to Bloodhound SSC.



THE NORTH AMERICAN EAGLE
The team behind this 'car' has bought an ex-NASA F-104 Starfighter jet, chopped the wings off and added wheels.



AUSSIE INVADER 5R
Rosco McGlashan is an avid LSR hunter and is powering his latest car with a rocket. He's also aiming for 1000mph.



FOSSETT LSR
Steve Fossett was well on the way to doing a LSR attempt when he tragically went missing in 2007. His 'Sonic Arrow' is currently for sale.

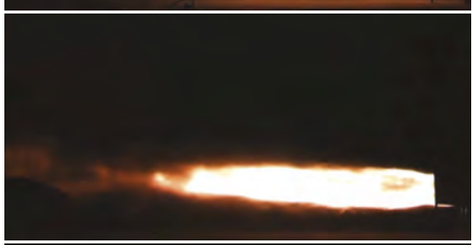


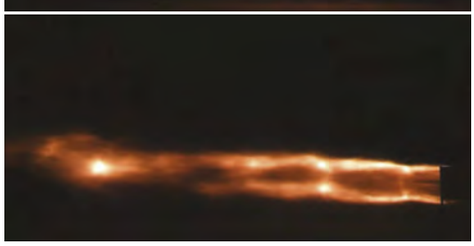
TEN-SECOND TEST

The steady and smooth burning of the rocket in the test is thanks to the extensive CFD work of Daniel Jubb. It mapped the burning fuel grain in the rocket chamber mathematically so that perfect mach diamonds were produced in the rocket plume.

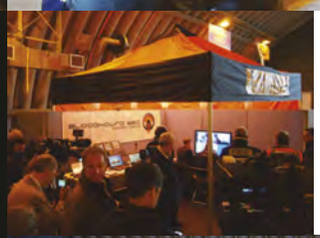










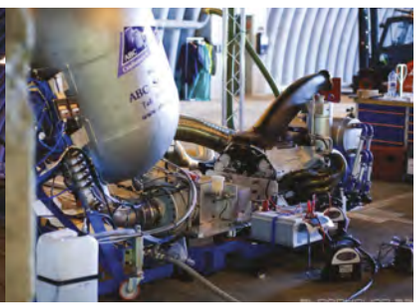






Clockwise from top right: Daniel Jubb checks the HTP tank; Cosworth engineers try to keep the F1 engine warm; the HTP tank was under half full for the test; concrete blocks protect everything in front of the rocket; HQ for the firing





THE NEXT TWO YEARS

The design has been signed off, the chassis is being built and the jet engine has been modified so that there isn't any oil surge at 3*g* deceleration – something the Eurojet engine doesn't usually have to contend with. However, there is still a very long way to go. As Noble says "if you see a finished car, the reality is that you're only halfway there". The big challenges over the next two years are packaging all the components in the signed-off aerodynamic shape and making sure that the rocket will work.

Judging by the progress made so far you wouldn't bet against the Bloodhound team overcoming these final obstacles in their pursuit of 1000mph.





JETBLACK

This is the first LSR challenger from New Zealand and it will use a jet as well as two rockets. Its attempt is scheduled for 2015.



THE SONIC WIND LSRV

American Waldo Stakes has bought plenty of ex-NASA components in order to build a 1000mph rocket car. The project is 40 per cent complete.



THE BULLET PROJECT

It's Australian and it's using a rocket to aim for 1000mph. That's the limit to everyone's knowledge of 'The Bullet' for the time being.



CRAIG BREEDLOVE

The five-times LSR holder is supporting a new American project that will run in 2013. It's the biggest 'unknown' of all of the challengers.



Historic Scene
WITH GORDON CRUICKSHANK







Cheeky Nash and (top right) Rouse's rapid Volvo were part of CCK Goodwood fleet



THE LAIR OF THE FLASH NASH

A cheery evening in the bar led to a challenge – what would be the daftest racer?

Intrigued by anyone who can make a Nash Metropolitan go quite so fast in the St Mary's Trophy, I'm threading through the deep-hedged lanes of Sussex, convinced I'm in the wrong place, looking for CCK Historic. Then, through a narrow gate, I spy a race-prepped Volvo PV544 outside some dark low buildings. Must be getting warm.

And the Nash is sitting in reception to greet me, along with Shaun Rainsford, CCK's owner. He screws up his face as we admire it – "I can't bear to look at it yet," he says. The hot engine broke in practice and required a rapid switch for the racing. It bothers Shaun, who has a record of building rapid and successful historics, such as Roger Wills's BMW CSL and his GAZ-Volga which was going absurdly well at Goodwood until the bonnet flew up. The CCK team grabbed a spare bonnet, sprayed it, drove it to Goodwood and fitted it overnight in time for the next race. Preparing historics doesn't stop at the weekend.

"We don't specialise in any one marque," says Shaun as we pass a stripped Cortina shell, a painted Volvo Amazon ready for a roll cage and a works lightweight Mini Cooper once raced by Handley, Rhodes and Hopkirk, as Daniel Lackey tells me. It's his job to chase up the histories, something that's ever more important in this business.

Shaun points to the Zodiac Christian Horner drove at the Revival, and an MG Magnette. "These two have been racing for 30 years. Tony Dron used to rally the Ford, and Julius Thurgood has raced that MG for ever." Historic historics, in fact. On the rolling road throbs the Vanguard Barrie Williams drove – one of six CCK cars on the St Mary's grid – as they hunt the misfire Whizzo reported.

Several Spridgets with Lenham bodies plus an original Sebring Sprite hint at another CCK

READY FOR A GIRO DI **SIDMOUTH?**

A proposed change to the law could permit a slew of new closed-road events in the UK

CLOSING ROADS FOR MOTOR SPORT could boost Britain's economy, says the MSA, which reckons 20 such events could net £40m for the UK and improve British drivers' skills through tarmac stages at home. Since a spectator was injured at Kop Hill in 1925 it's required an Act of Parliament to close a road for motor sport, so such events are limited. I love the thought of more Isle of Man-style tarmac action and they may be right about the cash boost, but I'm dubious about the suggestion that this would offer "a platform for messages of appropriate driving"…

Still, I'll sign the online petition (www.petition.co.uk/msa). What price a Birmingham Superprix Revival?

operation. Shaun bought the Lenham concern, and the CCK laminate shop produces panels for these and the Marcos 1800GT. CCK handles road restoration too – there's a stripped E-type in the bodyshop. "And those," says Shaun with a grin, pointing at a row of them by the engine shop, "are all the engines people blew up at Goodwood!" It happens more often with celebrity drivers, who maybe don't know the machinery, he says politely. Shaun calls in specialists as he needs them – before the Revival there can be 10 people here – but in essence his outfit can handle everything from engine internals to dramatic sign-writing like the elaborate badge on that Volga bonnet now leaning crumpled against the wall.

What I didn't expect was a museum. Here are Modsports Midgets that Shaun races, a Marcos 1800, John Britten's Midget coupé, Jim Russell's 1956 and '57 title-winning Cooper 500, the Super Touring Mondeo Paul Radisich still owns, an Austin A40, and an MG1100. Shaun grins. "Those two are from the peak of Goodwood madness. We saw people winning with rocketship engines and we thought, well, if there are no rules… This A40 had a blistering engine and vented discs, and the 1100 got wishbones and coils all round! With John Rhodes aboard it went right round the outside of some of the big boys." After sense prevailed at Goodwood the A40 returned to standard, bearing laurels for Shaun's third place in the St Mary's Trophy, but the mad MG is still active. "It's a great teaching car because it goes seriously sideways!"says Shaun, adding that the museum cars still mostly work for their living.

A six-door Mini limo is proof of another CCK speciality – novelty at short notice. "Goodwood asked for that with six weeks notice – but we finished it." Novelty drove the Nash project too, after a convivial post-race evening brought a challenge to dream up the daftest racer they could. The job was made easier by a Nash being basically an A35 in beachwear, so they could install an 1860cc B-series engine, A-series running gear with straight-cut close-ratio 'box and racing Sprite rear axle. Custom springs make it handle while specially made wide steel wheels cram Dunlop racing rubber under those bizarre flat-top arches. Since it began as a £1200 rusty ruin, one of the hardest jobs was sourcing trim for it: thank god for eBay, says Daniel. And on that hot engine it was going like a cheeky turquoise train, until... "But the story's not over yet," says Shaun.

Of course the Revival highlight was the Settrington Cup, and CCK prepared two cars for that. With their Austin experience they know just how to make those J40 pedal cars handle. Not their oddest challenge, though. What was that? Finding the right-sized coconut shell to house the rev counter on Thurgood's Magnette.



Peter Gethin beats the F1 entries in his Chevron F5000

CHEVRON GROWS A NEW WING

Long after the death of its founder, the racing marque adds another twist to its story

THE COMPLEX HISTORY OF THE Chevron marque gained another wrinkle with the announcement that the modern GR8 is now to be produced by the Jordan Witt racing team while Chevron Racing will continue with the heritage side. That winged badge graced the nose of a long line of successful 2-litre sports cars from the 1960s into the '70s, not to mention single-seaters up to F5000 culminating in Peter Gethin's cheeky victory over a mixed F5000 and Formula 1 field in the 1973 Race of Champions.

They say every Chevron model was a winner, and for scores of drivers a Chevron was part of their career. Gethin and Brian Redman were famed Chevron pilots, while Lauda, de Angelis, Rosberg, Attwood and Elford also raced them.

But Chevron stalled with the loss of Derek Bennett, a driver turned inventive constructor, who conceived all those successful models. When he died in a hang-gliding accident in 1978 the marque lost impetus, folding in 1981.

Since then two separate Chevron companies have been operating. Chevron Cars, now in Hampshire under Roger Andreason, put new models on the grid for some years and now builds FIA-approved B8s and B16s from the original drawings and jigs. Chevron Racing, in Cheshire, also assembles these classic racers, but recently developed the GR8, a new GT racer and road car which in GT3 spec has been going well in British GT for Anthony Reid and Jordan Witt. Now the Witt team takes over the GR8, moving production to a new facility where it will develop the racer. Meanwhile Chevron Racing continues with the classic models plus a road version of Bennett's first B1.

"Nearly all the staff are staying with us," says Helen Bashford-Malkie, whose husband Vin Malkie worked with Bennett and started the new firm in 1981. 2013 would have been Bennett's 80th birthday, and Helen wants to gather as many period B1 and B2 drivers as possible for a Shelsley meet and possibly a Monterey event, while Vin plans to race Bennett's original B1 in Sportscar Masters.

Like a venerable rock band Chevron has grown multiple identities, but that yellow badge is still on the race track. Bennett would be pleased.

DREAM GARAGE

WHAT WE'D BLOW THE BUDGET ON THIS MONTH



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Desirables







Cycle lines

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One of the great liveries – on Group 4 Lancia Stratos

Around the houses

NEWS FROM THE MAIN AUCTION HOUSES AROUND THE WORLD

– ARTCURIAL –

There are plenty of 'interesting' fakes out there, but Artcurial is offering the chance to own an original 1976 Group 4 Lancia Stratos for £280-320,000 in its November 11 sale.

This car was originally supplied by Lancia in azure blue and raced in Italy during 1978 and 1979. It made its way to France at the end of the 1990s, at this time painted yellow, and competed in the 2004 Tour Auto. It was then sold on again and has since been restored and painted in the famous Alitalia livery.

There's also a pretty 1953 Arnolt Bristol (£110-145,000), which competed in several US rallies in the 1950s. In 2001, when the car was sold on by the first owner Edgar Parser, the odometer read a paltry 22,000 miles. A collector in Monaco bought the car and has since raced it twice in the Historic Monaco Grand Prix.

– RM AUCTIONS –

On October 31 the Battersea Evolution centre will be alive to the sound of bidding, and one lot certain to generate some interest is a 1926 Brough Superior SS100 Alpine Grand Sports. This particular model is only 12 frame numbers away from the bike made famous by T E Lawrence and is expected to fetch £250-300,000. The heights of British motorcycle engineering will be well represented as there's also a 1952 Vincent Series C Black Shadow going under the hammer (£65-75,000).

There's plenty of four-wheeled machinery as well, with a 1975 BRM V12 (£150-215,000), a 1970 Astra RNR2 FVC sports racer (£70-90,000), a 2005 Maserati MC12 (£680-780,000) and an ex-Nuvolari, TT race-winning 1930 Alfa Romeo 6C 1750 GS Testa Fissa (£750-900,000).

There's also a 2008 Bugatti Veyron EB 16.4, which has only done 700km since new. With an estimate of £440-560,000 the previous owner has lost a staggering £714 for every kilometre they've done. Ouch.

– MECUM –

You can buy 'The Pizza Man' if you are in St Charles, USA on October 25-27. No, it's not a man on a scooter; it's the 1954 Chevrolet Corvette which competed in numerous Midwest and national drag events between 1962 and '71 at the hands of Earl Britt, the man who owned Earl's Pizza Palace in South Dakota. It set nine World Records in the NHRA Modified Production class and earned the title of the 'world's fastest six-cylinder Corvette'. Estimate available on request.

– GOODING & COMPANY –

The results are in. American auction house Gooding and Company has reported total sales of more than £118.3 million in 2012 for 296 lots sold. It doesn't take much to work out that the average price for each lot was £399,662. "It shows us that there continues to be a growing demand all over the world for blue chip cars," commented president and founder of the company David Gooding.

– SILVERSTONE AUCTIONS –

On November 17 Silverstone Auctions will host its next sale at the Classic Motor Show in Birmingham. Lots are still arriving, but a 1972 Ford Escort MkI rally car has been signed up. It has been competitive in recent ACSMC Tarmac Rally Championship events and is expected to reach £10-14,000. There's also a 1971 Fiat 500 L that was once owned by British Prime Minister David Cameron, who bought it for his wife Samantha. Either Fiat 500 prices are rocketing or Silverstone believes the Cameron link makes this car worthy of an £8-12,000 estimate.

– BONHAMS –

The British auction house will host its usual Veteran Car Sale in conjunction with the London to Brighton Run on November 2. The lot list is filled with early cars including a 1904 Wolseley 12hp Tonneau (£100-150,000). There's also the oldest surviving Vauxhall – a 1903 two-seater 5hp, which is expected to fetch £60-80,000. Re-sold in 1904, it has been in the ownership of the same family ever since. But even that record is beaten by the 1904 Wilson-Pilcher, which has never before been sold. Retained by the works, it was gifted back to the family in the 1950s. Ⓜ

OCT 25-27 MECUM *Muscle Cars & More,* Pheasant Run Resort, St Charles, Illinois, USA Tel: 001 (262) 275 5050

OCT 28 MOTORCLASSICA *Classic Car and Motorcycle Auction,* Exhibition Building, Melbourne, Victoria, Australia Tel: 0061 409 327 220

OCT 30 BARONS *Classic, Collectors and Sports Car Auction,* Esher Hall, Sandown Park Exhibition Complex, Surrey Tel: 023 8066 8413

OCT 31 H&H *Collectors' Cars and Automobilia,* The Pavilion Gardens, Buxton, Derbyshire Tel: 08458 334 455

OCT 31 RM AUCTIONS *Automobiles of London,* Battersea Evolution, London Tel: 020 7851 7070

NOV 2 BONHAMS *Veteran Cars and Automobilia,* New Bond Street, London Tel: 020 7447 7440

NOV 11 ARTCURIAL *Automobiles sur les Champs 4,* Artcurial Private Garage, 7, Rond-Point des Champs Élysées, Paris, France Tel: 0033 1 42 99 20 56

NOV 14 BONHAMS *Collectors' Motor Cars and Automobilia,* Great Yorkshire Showground, Yorkshire Event Centre, Harrogate Tel 020 7447 7447

NOV 17 SILVERSTONE AUCTIONS *NEC Classic Motor Show Sale,* NEC, Birmingham Tel: 01926 691 141

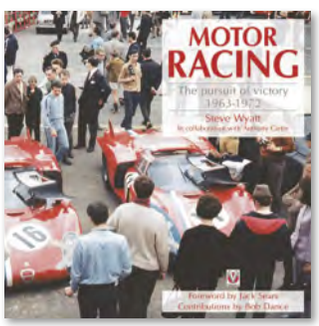
NOV 24 HISTORICS AT BROOKLANDS *Collectors Cars and Automobilia,* Brooklands Museum, Weybridge, Surrey Tel: 01753 639 172

NOV 26 SHANNONS *Melbourne Summer Classic Auction,* 321 Warrigal Road, Cheltenham, Victoria, Australia Tel: 0061 2 8019 4116

NOV 28 BRIGHTWELLS *Classic Cars and Motorcycles,* Easters Court, Leominster, Herefordshire Tel: 01568 611 122

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MOTOR RACING

THE PURSUIT OF VICTORY 1963-1972

by Steve Wyatt

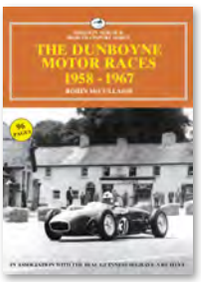
How many images are lost in motor racing fans' houses? Hundreds of thousands? Probably millions. Like the precursor to this book, *Motor Racing: Reflections of a lost era*, this is another behind-the-scenes book on motor racing that goes some way to rectifying this situation.

It's a collection of images, of cherished memories, and has been treated as such with chapters divided by years and the following pages resembling a racing fan's scrapbook. The real charm of the work by Wyatt – who used to take a bus, train, ferry, another bus and then a mile and half walk just to get to Brands Hatch – are the images.

400 have never been seen before and they stretch from the 1963 *Daily Express* International Trophy at Silverstone to the 1972 British Grand Prix at Brands Hatch. While there are plenty of action shots it's the off-track, in-the-pits images that really capture your attention. If our You Were There photo feature was made into a book then it would look something like this.

An interesting snapshot of 10 years of motor racing. **EF**

Published by Veloce Publishing, ISBN 978 1 904788 10 2, £45



THE DUNBOYNE MOTOR RACES

1958-1967

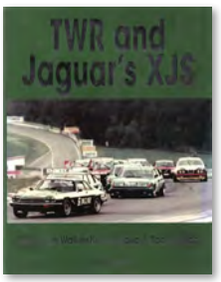
by Robin McCullagh

Even for the time, the road races that took place on a fast triangular circuit around Dunboyne were outdated. Four deaths in three years in the mid-1960s sealed the circuit's fate, but the small village just west of Dublin remains fondly remembered by those who took part in and witnessed the races.

This volume, the latest in the Irish Transport Series, offers detailed reports of each meeting and a mixed bag of evocative but at times grainy black and white images. A young John Watson both watched and competed at Dunboyne, while Richard Attwood, Alec Poole and Paddy Hopkirk all took their chances over the formidable Boylan's humpback bridge.

We don't get any first-hand memories here, which is a shame, but written histories of such tracks are rare, and this one is a welcome addition. Today, it's almost hard to believe it all even happened. **DS**

Published by Dreoilín Specialist Publications Limited, ISBN 978 1 902773 28 5, €12



TWR AND JAGUAR'S XJS

INSIDE TOM WALKINSHAW'S GROUP A RACING TEAM

by Allan Scott

Aficionados of Tom Walkinshaw Racing will know Allan Scott as one of the team's earliest employees, becoming manager of the Race Engine Division in 1979. He is therefore very well-placed to give an account of TWR's assault on Group A Racing.

The book is filled with detail; close-up photos of suspension assemblies, invoices and race calendars abound, but what really brings it to life are the personal accounts of life and racing within the operation. When an ex-employee writes about their time in a company, it can sometimes come off as excessively biased. But Scott – while clearly highly respectful of his late boss – is understanding of Walkinshaw's reputation in the racing world. He explains rather than taking sides, making his accounts of the team's impressive successes at Donington, Brno and Bathurst ring all the more true. **ACH**

Published by John Douglas Publishing, ISBN 978 0 9876665 5 0, £49.99



LAKESIDE

THE EARLY YEARS

by Richard Croston

This is an enthusiast's account of the well-loved Lakeside circuit, just north of Brisbane.

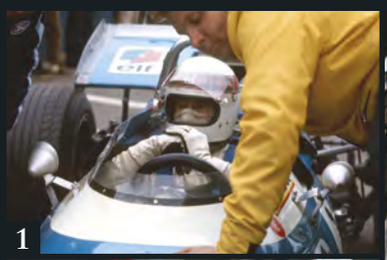
Conceived by local dairy farmer and racer Sid Sakzewski, it was built on his land by keen locals and first opened its gates in 1961. Aussie touring car legend Dick Johnson even had his first race here, and writes the foreword. It's still open today, and in its heyday it attracted international fields for rounds of the Tasman series.

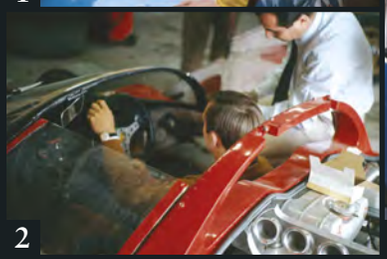
The book is split into chapters on drivers, but the text is very sparse in places and some racers only get picture captions. Predominately, though, this book is a picture special by local photographer Brier Thomas. The quality of the black and white images is more amateur than professional so this can mainly be recommended to people with a personal connection to this Queensland circuit. **DC**

Published by Lakeside Racing Books and Richard Croston Enterprises, ISBN 978 0 9872932 0 2, AUS $45

YOU WERE THERE

Daytona, Watkins Glen and Cricket St Thomas... Motor racing has an almost endless spread of venues, and we like to reflect that rich variety


1


2


3


4

JOHN GAUERKE

Over 60 years John Gauerke has assembled a vast archive of photos right back to Indy in the 1940s. {1} 1969 US GP: Jackie Stewart practicing the zen calm he will need when his Matra's engine fails while leading. {2} Daytona 1967: Chris Amon (aboard) and Lorenzo Bandini discuss their Ferrari P4 {3} The same year, US GP: having qualified well in his Eagle-Weslake, Dan Gurney muses on the race to come. {4} NART flew the flag for Ferrari at Watkins Glen in '69, with Pedro Rodriguez in their single car.



DENZIL MONIS

A long-time devotee of the magazine, Denzil Monis has a collection of *Motor Sports* going back to 1949, when as he puts it "I first set foot on this race track of life". He sent us a selection of Grand Prix images, but we were tickled by this shot of a more grass-roots event - our own Jenks (Denis Jenkinson) with his Tribsa (Triumph engine, BSA frame) bike at the Cricket St Thomas hillclimb in September 1982. Although he mixed with all the Grand Prix greats, Jenks was equally at home up to his elbows in oil in a grass paddock with other 'bike and car people.

Doug Nye

TAILS OF THE UNEXPECTED

Two photos discovered by chance in the archive offer outlandish examples of original thinking

How much so many greybeards of the '70s and early '80s detested 'bloody aerodynamics' and the technology's contemporary effect upon racing car design sprang to mind recently when I rediscovered a couple of prints I'd conscientiously filed under 'P' for 'Photograph'.

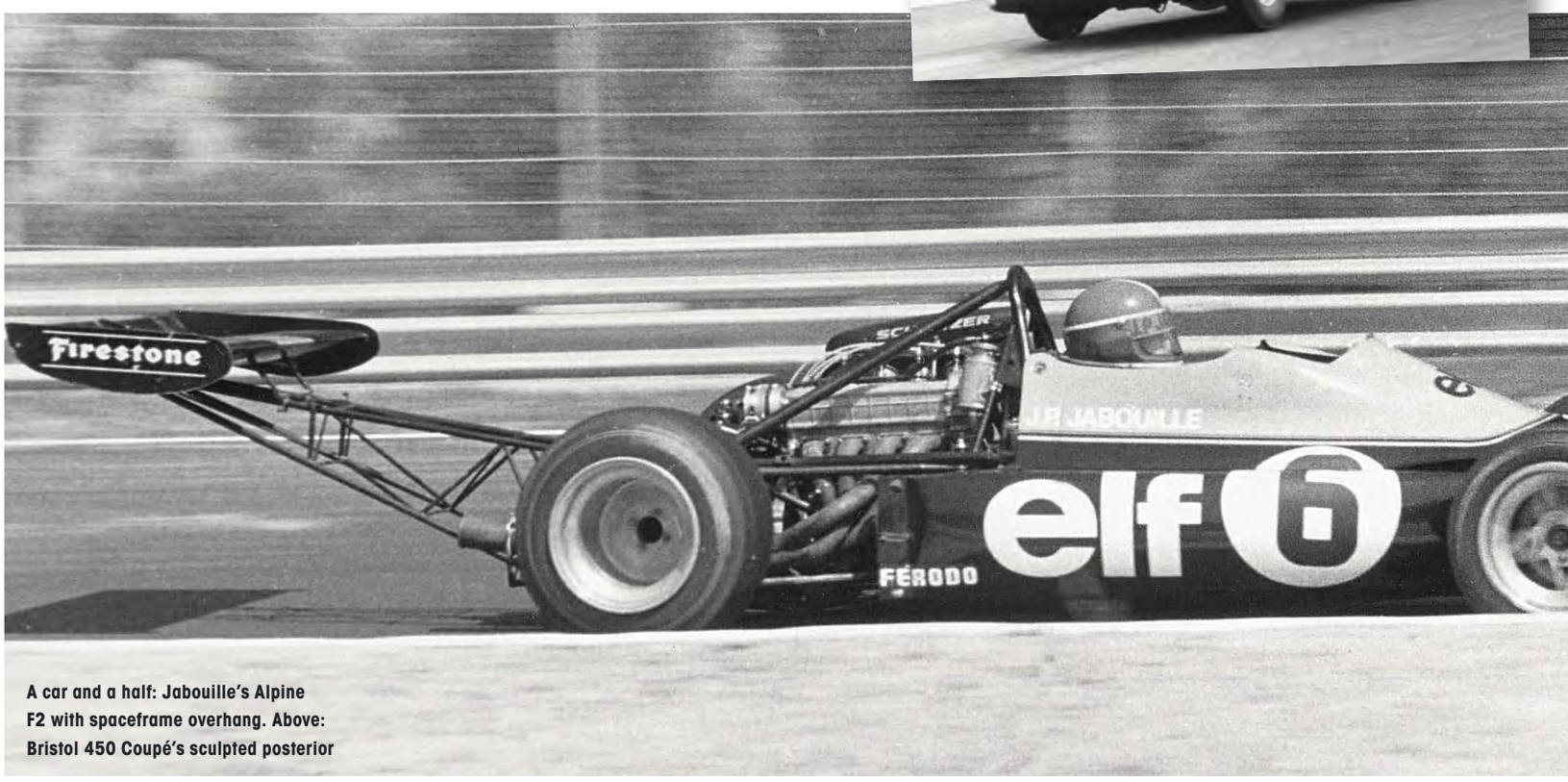
One showed the finned fastback tail of the Mike Keen/Trevor Line Bristol 450 Coupé, heading towards 10th place in the 1954 Reims 12-hour race. It reminded me of how sleek and exciting these Bristol aerodynes looked in period, as long as one didn't study their frontal aspect too closely – for in contrast to the cars' three-quarter-rear and tail-on appearance the nose treatment was pretty much an aesthetic error.

It's such a pity that after the Le Mans disaster of 1955 none of these 450 cars survived Bristol's management axe. They had not been involved in the catastrophe, but its import had so rattled Bristol's already-disaffected management that the works team was dissolved and the cars broken up. It would be fascinating to see a 450 Coupé tested in a modern wind tunnel, just to establish once and for all whether or not those tail fins had any positive effect, or were they really masked from clean airflow by the cabin greenhouse ahead of them? No other worthwhile manufacturer copied the Bristol fins, which I guess tells its own tale.

And just beneath the Bristol pic I found another aerodynamic jaw-dropper – this time Jean-Pierre Jabouille's works Elf 2 (Alpine A367) with Schnitzer-BMW M12 engine, hurtling around Italy's Mugello circuit to set fastest lap in the venue's 1974 European F2 Championship round.

The freckled Frenchman finished seventh in that race, which was won by his compatriot Patrick Depailler's works March 742. But Jabouille's Elf-branded Alpine had lost a lap having its sticking throttle relieved, and it was towing along behind it one of the furthest-overhung rear wings I ever recall – mounted upon a multi-tubular spaceframe brace which a decade-and-a-half earlier would have done





A car and a half: Jabouille's Alpine F2 with spaceframe overhang. Above: Bristol 450 Coupé's sculpted posterior

justice as at least half the chassis of a Lotus 12.

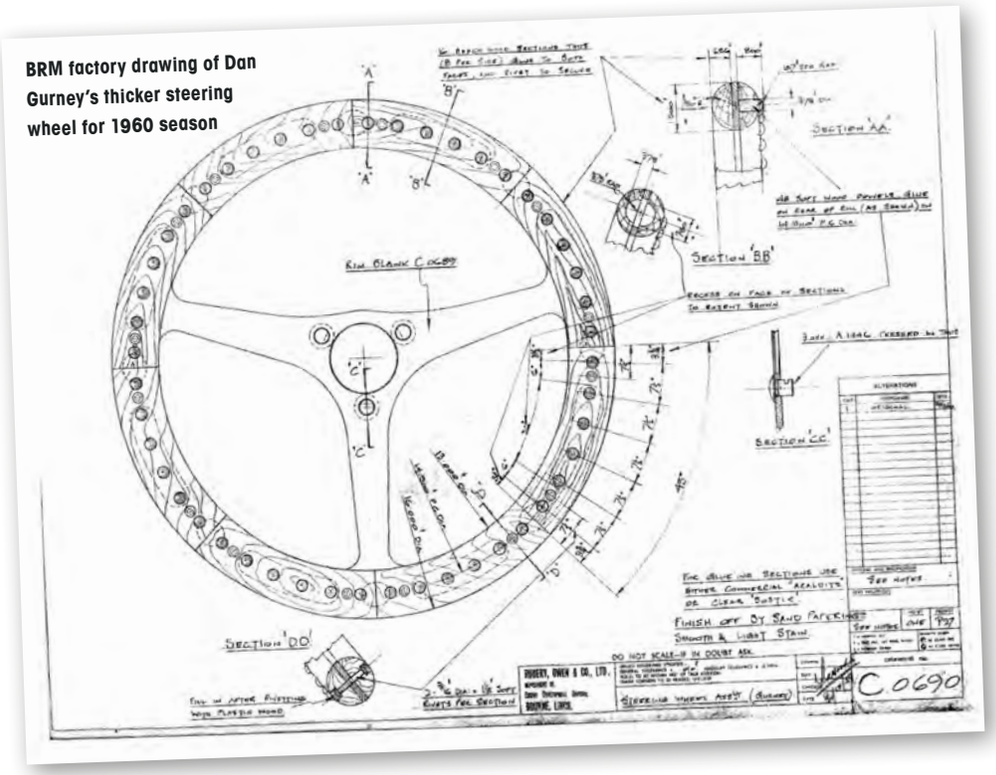
You might conclude from studying the photo that outrigging the wing so far might have been more effective had a properly profiled cover been fitted to streamline the fully exposed engine bay, but I'm pretty sure it had merely been left behind in the pits. One could never criticise Alpine's technical team on this account since their GT and single-seater cars had always ridden at the forefront of aerodynamic slipperiness. Enforcedly so, since their long-time Renault-based engines had nearly always laboured under a horsepower deficit.

To trim out the effect of that vast lever-arm rear wing, the nose of the Elf 2 had been extended some 5in further forward. Had Jabouille spun there might have been precious little road width left for others to squeeze by. Further tunnel work, and perhaps a word or two from the scrutineers (and the FIA's rule makers) soon produced a shorter solution, and front and rear axle-line overhang limits then followed from the regulation writers.

But from a 21st Century perspective in which all single-seaters and most LMP cars so often look virtually identical, such distinctive designs as the '50s Bristol and the '70s Elf 2 endure as very welcome ways of handling fresh air.



GP Library



BRM factory drawing of Dan Gurney's thicker steering wheel for 1960 season

How Gurney got a grip on blister trouble

MY BIG BROTHER, ROD, TAUGHT ME TO DRIVE IN A Standard Vanguard Mark I. He is eight years my senior and taught me Army-style, no compromise, no sympathy. One of the first things to make him bawl at me was my white-knuckle grip on the steering wheel. "Relax!" he would roar. "Stroke it – don't strangle it!". His 'advice' – ahem, blunt order – has stood me in good stead since.

Perhaps in the '50s he could have told Dan Gurney a thing or two. At the Goodwood Revival I reminded Dan that BRM works drawings survive from his 1960 season with them, detailing the specially outsized steering wheel rim and gear lever grip he had requested. One might conclude that the tall, muscular former Ferrari driver was some kind of Desperate Dan, a steering wheel breaker, prone to ripping out gear levers by their roots.



LAT

Not so, Dan recalled: "Early in my career I had a real problem with blistering my hands. I'd finish a race with my palms and fingers red raw, and that took time to recover. So I figured a thicker steering wheel rim and bigger shift would spread the load and solve the problem. I'd got Ferrari to do that for me in '59 and BRM the same in '60. But later in my career the blistering just went away. I guess what really happened was that as I gained experience so I relaxed. I just took a softer grip on the wheel and shift…".

Tony Brooks – quite independently of this conversation – recalled how, when Dan was his junior team-mate at Ferrari in 1959, he saw the size of the newcomer's steering-wheel rim and gear knob (gearchange 'handle' would be a more accurate description) as a dastardly ploy to deter *de facto* team leader Brooks from taking over Dan's car should he need to. "Outrageous!", Tony beamed, in mock disgust.

As he clambered out of the works Ferrari TR59 in which he'd chauffeured Dan around on their laps of honour during the Revival Gurney Tribute, Tony grumbled: "This time I'm just the taxi driver – don't suppose there's any chance of a tip either…".

Dan, for all his protestations that it was his early death-grip blistering problem which led to the special-sized steering wheel rims and gearchanges of his Ferrari and BRM periods, later chuckled and did admit to me that "Of course – racing in those days, you couldn't afford to gran'ma a shift". Brother Rod might have sorted him out…



GP Library



LAT

Brian Lewis in Talbot 105, Le Mans 1931. Right: team Talbots still racing today

New view of blighted Talbot racing history

ONE OF THE FINEST MOTOR RACING BOOKS I HAVE read is 'Georges Roesch and The Invincible Talbots', written by the late Anthony Blight. He had an extraordinarily scholarly understanding of the Georges Roesch-designed Talbot 90 and 105 competition cars, as campaigned by Arthur Fox's successful Fox & Nicholl team through 1930-32.

These powerful, reliable and good-handling cars accumulated an incredible record of success within their class in races ranging from the Le Mans 24 Hours and RAC TT at Ards to the Irish Grand Prix, the Brooklands Double Twelve and the BRDC '500'.

The appeal of these relatively sober-looking sports-racing cars has been confined to more discerning enthusiasts because their success in period did not include memorable outright victories. They instead dominated their class. Like C2-winning endurance-racing marques of the 1980s, one has to understand the broad spectrum of motor sport to understand why the Talbots have been so much loved.

Now Anthony Blight was the arch Talbot enthusiast. But he encountered a situation which would leave any committed historian gnawing the bed sheets. This is discovering the truth only long after a 'definitive' history has been printed.

For years there has been controversy about whether or not the Talbot 105s ever raced with aluminium-block engines rather than the standard production cast-iron design. Blight doubted they did, because no alloy engines seemed to survive, nor had he seen documentary evidence to the contrary.

His wonderful book was published in 1970. In 1988 he wrote in the STD (Sunbeam-Talbot-Darracq) Club Register as follows: "The origins of the 105 remain one of the last really baffling mysteries of the Talbot story, and I would love to have another go at it. The Talbot book was written in the teeth of active opposition from Georges Roesch… 'Blight is against me', he told Bill Boddy; and he was also a little jealous. 'It is my story', he used to say, '…and only I am entitled to write it'. 'Well, get on with it then' I invariably replied, but of course he didn't, and kept me at arm's length instead. He never allowed me access to any single document of interest or value… and he even went so far as to give his few surviving… associates (instructions) not to give me any help either…"

Anthony explained how the great performances of the utterly standard Talbot 90s in 1930 persuaded Talbot that more power in the same car would bring further success in 1931. He wrote: "The decision to go for a new unsupercharged 3-litre engine was entirely justified from the engineering point of view, politically bold and commercially – in 1931 – bordering on the insane". He imagined one boardroom faction in Talbot's London factory at Barlby Road, Ladbroke Grove, insisting that the new model should be an extension of the existing 90 in all design elements while the sports-minded faction won the point that the new car should carry the same weight as its predecessor on both axles "…and thus gaining approval of an alloy cylinder block".

This is presently something of a hot topic in Talbot circles with alloy engines being frowned upon for historic racing, against iron blocks with greater capacity than period. Talbot's alloy-deniers might therefore take note of two telling reports compiled by Brooklands/RAC scrutineer Hugh P. McConnell on May 19, 1931. One is headed 'Le Mans Meeting 1931. Talbot I' describing how he had visited the Barlby Road factory "…to ascertain the cubic capacity of the engine of the above car entered for the above competition and beg to report as follows…".

He found the six-cylinder unit's cylinder bores measured 75mm, the stroke 112mm and total capacity therefore 2968.801cc. "The engine No. is: A.V.1" – chassis '31053' – and he had duly stamped the engine "'H.P. R.A.C. A.V.1' - On nearside timing case". His second report typed that day details 'Talbot III' for Le Mans that year; "Engine No. is: A.V. 3 – chassis '31051' – stamped on timing case".

Now the racing Talbots' normal iron-block engines were two-digit numbered, eg '33' or '34'. But these Le Mans engines stamped by Hugh McConnell were instead numbered 'AV1' and 'AV3'. Today engine 'AV10' survives, having been acquired from Australia many years ago by Talbot specialist Ian Polson. It is the only known surviving alloy-block unit. During 1935 it had been sold in a 1932 Talbot 105 by London dealer Jack Bartlett to South Australian P.S. Hawker. In a letter to Hawker, Bartlett described it as "…number 10 of the special 12 hand-built chassis with special bronze-electron cylinder blocks, special cylinder heads and …the same chassis as the Fox & Nicholl racing cars". Describing its block as 'bronze-electron' sounds like motor tradese; it proves to be in 'Birmasil' aluminium alloy with 'Chromidium' cast-iron cylinder liners.

And that's where McConnell's 1931 reports would have galvanised Anthony Blight, had he only seen them. Because McConnell described the cylinder blocks of those two engines as having been stamped "…on front liner" and "on top of block and liner". Since the iron blocks didn't need them, only the aluminium engines would have had cylinder liners… and here's the smoking gun.

When *The Motor* described the new racing Talbot 105s it reported:"…the power output of the engine has been increased while the gross weight has been diminished". The production Talbot 105 cast-iron engine is around 100lbs heavier than the 90, yet the first racing 105 engines were lighter than the 90. Regarding alloy Talbot 105 engines as a myth, perhaps this is the smokiest gun of all? M



Parting Shot

DTM, Singen, September 16, 1995

The Opel Calibra V6 of Keke Rosberg sheds part of its front spoiler in qualifying as he kerb-hops his way round the Alemannenring street track. Dario Franchitti secured pole position in his Mercedes-AMG C-Class, but team-mate Kurt Thiim won both races

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