

RICHARD WILLIAMS

24

HOURS

100 YEARS OF LE MANS



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24 Hours

100 YEARS OF LE MANS

Richard Williams



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In memory of Georges Durand (1864–1941) and Pierre Rouchy (1944–1955)

‘You don’t win Le Mans. It lets you win’

—ALEXANDER WURZ

‘I never did feel the same way that my colleagues did, that it wasn’t a real race, because it is. It’s a race against different things, though’

—PHIL HILL

‘It’s not everybody’s game’

—JACK FAIRMAN

CHAPTER 1

Daybreak

In the first light of day a pale mist rises in the far corners of the circuit. The heat of the opening battle is already a distant memory. The strain of the grind through the hours of darkness has begun to fade. A new challenge presents itself. 'The rising sun brings a sensation of physical frailty. You experience nausea. The smell of petrol becomes unbearable. You feel pain in your stomach.' The words of the great French champion Jean-Pierre Wimille, a double winner of the 24 Hours of Le Mans in its early years, remind us that the world's most famous sports car race is not just a celebration but also a test in which the winners' champagne is often mixed with sweat and tears.

The details may change across a century; the essence doesn't. In the morning sun, a Dutch camper emerges from his tent to empty a jerrycan of water over his head. A group of Japanese mechanics are going through their martial arts exercises, staying sharp. A *sapeur-pompier* shaves in the wing mirror of his fire engine. Behind the grandstand, a recruiting station for the Foreign Legion prepares to reopen. Queues begin to form again at the merchandising stands. In those moments, Wimille could feel the nausea and the pain receding: 'Towards noon, all that fades away. Mental and physical strength return as the spectators come back and the finale approaches.'

Like most French cities of any size, Le Mans has its streets and squares named after politicians, war heroes, writers and artists – Jean Jaurès, Georges Guynemer, Albert Camus, Henri Matisse. But it also commemorates winners of the race that made the city's name known around the world with a rue Raymond Sommer, a Square Jean-Pierre Wimille, a rue Olivier Gendebien,

and others. This is an institution, now 100 years old, that understands, respects and makes every effort to preserve its own history.

A particular French genius for turning sport into mass spectacle is at the root of the 24 Hours of Le Mans, something it shares with the modern Olympic Games, cycling's Tour de France and football's World and European Cups. A gift for thinking on a grand scale is in evidence: for devising complex rules, for attracting and organising competitors, for applying imagination and persistence, for moulding and promoting an event capable of capturing the attention of a worldwide audience while strengthening its appeal by encouraging the accretion of myth and legend. And, with the coming of the TV age, for turning the whole thing into a commercial bonanza.

From its necessarily primitive beginnings, the 24 Hours grew into a phenomenon whose possibilities were assiduously cultivated by the race's organisers and owners, the Automobile Club de l'Ouest (ACO). As with Wimbledon, the name of Le Mans – a generally overlooked medium-sized city in the department of the Sarthe in north-western France – became synonymous with a single event that would stand in the public mind as a symbol of its sport.

It was devised to capture the imagination. When I was a boy it was the race I most wanted to see. Along with the Monaco Grand Prix and the Indianapolis 500, the 24 Hours of Le Mans was one of the three most glamorous fixtures in the motor racing calendar, with a rich history going back to the inaugural event in 1923. On my first visit as a spectator in 1967, it lived up to all hopes and expectations: the tension of the build-up, the colour and chaos of the start, the meandering crowds, dust softening the evening sunlight, the garish fun fair, the incessant roar of cars racing through the night, an hour's fitful sleep in the seat of a coach, the bleak light of a chilly dawn, the grinding final hours, the mixed joy and relief for the competitors when four o'clock came around. Later visits continued to provide evidence that, despite many changes to the cars and the circuit on which they race, the essential magic survived.

Le Mans was planned from the start as a natural marriage of sporting and commercial values, conceived not merely as a contest in which crowds could thrill to the sight of drivers risking their lives at previously unthinkable speeds, but in which potential customers could evaluate the products of

manufacturers competing in a still-new market. Not just makers of the cars themselves, but of the tyres, spark plugs, brakes and lights with which they were equipped, and the fuel and lubricants on which they ran.

Between the wars, in the first two decades of the race, the winners included Bugatti, Delahaye, Bentley and Alfa Romeo. Afterwards its lustre adhered to such names as Ferrari (winners of the first post-war race in 1949), Jaguar, Mercedes, Aston Martin, Ford, Porsche, Matra, Renault, Mazda, BMW, Audi, Peugeot and Toyota. As the currents of history passed through the race, its roll of honour came to reflect changes in the balance of power within the international motor industry. Where France, Britain and Italy shared the spoils of the first four decades at Le Mans, first the US, then Germany and most recently Japan fought and won battles for a dominance that mirrored their success in selling cars to the general public.

In the early days the manufacturers were seizing the opportunity to demonstrate not just the performance but the reliability of the cars they were offering to the public. Those eligible for Le Mans would need sporting characteristics, naturally, but unlike Grand Prix machines they would be obliged to carry all the equipment required by road cars. The race would also provide a punishing test of engines, thanks to the inclusion of an unusually long straight, and of brakes, as well as of roadholding and handling.

To begin with the cars could be of any size, from midgets to monsters. In order to prove that they could be started from the driving seat and that the all-weather equipment functioned properly, the drivers had to line up on the opposite side of the track, run across to their machines, erect and secure the hoods, and only then jump in, start up the engine and race away. (The hood requirement was soon removed, but the famous Le Mans start lasted until 1970.) Strict rules on petrol and oil consumption were enforced by commissaires. If a car broke down on the circuit, all repairs had to be carried out by the driver, using only parts and tools carried in the car; if it became embedded in a sandbank, he or she had to dig it out unaided (and many took to carrying a small shovel in the cockpit for that purpose).

A rich folklore built up over the decades, including stories of leaking petrol tanks being sealed with cork, soap and chewing gum, of drivers hallucinating while hammering down the endless Mulsanne straight in the pre-dawn hours, of one competitor making his last pit stop for a fill-up and a glass of champagne, of the woman who drove through the night hours in a fur coat, of

a driver who parked his car in the woods and took a nap before being woken up in time for the finish, and of the man who drove the entire twenty-four hours without leaving the cockpit of his Bentley for anything – anything at all – a month before his fiftieth birthday. Another driver almost succeeded in winning the race single-handed, only for fatigue to provoke a missed gear change and a broken engine with barely an hour to go.

Using public roads, including part of the *route départementale* from Le Mans to Tours, the eight-mile circuit retains its basic outline and many long-cherished features, such as the distinctive row of thirty plane trees lining the left-hand side of the track before the start of the main straight and the Dunlop footbridge under which the cars roar soon after leaving the start. Despite the gradual introduction of modern safety features, it remains an example of how the best circuits are based on roads laid out when natural topography and geography were the factors that determined the route of a journey from one place to another, and where those elements remain a visible part of the scenery.

Until Grand Prix racing became so specialised, the very greatest heroes made appearances at Le Mans: Tazio Nuvolari, Rudolf Caracciola, Raymond Sommer and Jean-Pierre Wimille before the Second World War; Juan Manuel Fangio, Stirling Moss, Mike Hawthorn, Jim Clark, Lorenzo Bandini, Jackie Stewart, Graham Hill, Jochen Rindt, Mario Andretti, the six-times winner Jacky Ickx and others in later years, through to the generations of Michele Alboreto, Johnny Herbert and Fernando Alonso. But it made its own legends, too. Woolf Barnato, Luigi Chinetti, Henri Pescarolo and Tom Kristensen – who broke Ickx's record to reach nine wins – became famous principally for what they accomplished at Le Mans and are as much a part of motor racing history as any F1 world champion.

Aristocrats and playboys – the likes of Earl Howe and Lord Selsdon, Prince Nicholas of Romania, Prince Igor Troubetzkoy of Russia and the Dominican *roué* Porfirio Rubirosa – queued up to take part. The traditional mix of professionals and amateurs, which arose naturally in the pre-war years, continues to attract competitors from sixteen to sixty-five, a *dramatis personae* that has included Olympic champions, rock stars, wine growers and even drug smugglers.

Women, too, have been frequent competitors, racing on level terms with the men. The first were Odette Siko and Marguerite Mareuse, who shared a

Bugatti in 1930. They were followed in the inter-war years by six fellow Frenchwomen, one Canadian, one Australian and no fewer than fourteen British females, including a First World War ambulance driver and a future motoring correspondent of *Vogue*. After a fifteen-year ban, the surge in the 1970s resembled that of the 1930s, but no woman has yet matched the fourth place achieved by Siko in her Alfa Romeo in 1933.

Le Mans was the place where champagne was first sprayed from the podium of any sporting event, when an American driver found a new way to celebrate victory in 1967. He did so a few yards away from the spot where, a dozen years earlier, in the greatest tragedy ever to befall motor racing, a burning wreck flew into the enclosure opposite the pits, killing eighty-three spectators, the youngest of them only eleven. The race had continued while the dead bodies and many more injured were taken away, allowed to run to its scheduled conclusion the following afternoon. If that seems unthinkable today, there were sound and sensible reasons behind the decision, as well as the very different attitudes to risk and mortality common barely a decade after the circuit and its surrounding villages had been left in ruins by the battle between occupying forces and liberators.

In all, twenty-two drivers have been killed during the race or its practice and test sessions, along with several trackside marshals and a number of other spectators in the early days. Safety measures for the drivers saw the introduction of helmets, seat belts and flameproof overalls. The primitive early hazard warnings of white rings painted on trackside tree trunks extended over the years to the introduction of safety barriers and gravel run-off areas, warning lights, safety cars and slow zones, and the addition of chicanes to break up the long flat-out Mulsanne straight once cars had begun taking off and flying into the trees at 230mph. Spectators were gradually moved further back, protected first by earth banks and then by steel barriers and debris fencing.

For all its legendary status inside and outside the sport, not everyone loved Le Mans. Some who drove there found it both boring and dangerous. They disliked the need to nurse a highly tuned, highly stressed engine through the full twenty-four hours and, even more, the difficulty of judging speed differentials separating the biggest and the smallest cars and the variable skills

of the amateur drivers who flocked to the race, creating a potential hazard that was particularly pronounced during the endless hours between dusk and dawn. Although Wimille loved the race, he could vividly evoke the anxiety they all felt: 'You fear that a backmarker won't leave the line open for you. And as soon as you're past, it's the same thing again. You grow very tired of sustaining this level of attention and your own race is more difficult to conduct.'

Some drivers noted a kind of mental torpor that can descend while running through the night at high speed, but Wimille found satisfaction in the need to rely on his racing instinct: 'Those who don't have that instinct lose their bearings, lose time and get very tired during the night. You need perfect self-control to eliminate emotion. I like this very much.'

The romance of the race attracted leading filmmakers. They included Claude Lelouch, who used it as a setting in the worldwide hit *Un homme et une femme* (*A Man and a Woman*, 1966), Steve McQueen, who conceived and starred in *Le Mans* in 1971, Luc Besson, who directed a film based on the popular cartoon character Michel Vaillant, a champion driver, shot during the 24 Hours in 2003, and James Mangold, who made *Le Mans '66* – about the ferocious battle between Ford and Ferrari, starring Matt Damon and Christian Bale – in 2019.

A strong British presence since the very beginning transforms Le Mans into an outpost of empire for one weekend each summer. After the high-living bunch known as the Bentley Boys started it all with five wins between 1924 and 1930, the successful Jaguars and Aston Martins in the 1950s sustained a tradition whose continuing vigour can be seen every year, not just in the entry list for the race but in the queues of British-registered cars heading for the car parks around the circuit. Of today's average attendance of 250,000 at the circuit, a large proportion – usually around a fifth – will have crossed the Channel.

Also intact is the race's long tradition of encouraging the sort of innovation that can be passed on to more conventional forms of motoring. Self-starters were mandatory from the beginning, at a time when most cars were still started by handles. A Frenchman used Le Mans to prove the reliability of his front-wheel-drive system in the 1920s. Disc brakes were a novelty that, after well-publicised successes with the winning Jaguars at Le Mans in the '50s, eventually became standard equipment for all cars. Occasionally something

revolutionary would be allowed to enter in a class of its own, from the exotic twin-boom Nardi of the 1950s through the Rover-BRM gas-turbine cars of the early '60s to the bizarre Nissan DeltaWing of 2012. In 2019 Le Mans saw its first quadriplegic driver take part in a specially modified car.

This embrace of innovation breeds a richness of cast and crew that has helped carry the race through periods of dominance by single teams, from Bentley in the 1920s to Audi and Toyota most recently. As with the Tour de France, something is always going on somewhere, whether at the front, in midfield or among those struggling simply for the satisfaction of getting to the finish.

Its early success meant that the format of Le Mans was soon copied. A year after the first edition, full twenty-four-hour races were held at Spa and Monza in 1924. At Pescara, on Italy's Adriatic coast, the Targa Abruzzo was run in 1934 and 1935 as a twenty-four-hour race for sports cars. In Florida, the 24 Hours of Daytona was first held in 1966 over an artificial track combining road circuit and banked oval; it remains the US's most significant annual sports car race. The 24 Hours of the Nürburgring began in 1970 for a field of GT cars and touring cars, mostly driven by amateurs. There were scaled-down versions, too. Day-into-night twelve-hour races took place at Pescara in 1952 and 1953, at Reims from 1953 to 1961, and at Sebring in Florida from 1952 to the present day. The best Britain could do before the war was the Brooklands Double 12, run between 1929 and 1931, each race split into two daylight twelve-hour sessions in order to placate the circuit's neighbours in suburban Surrey. In the mid-1950s a nine-hour race – from 3 p.m. to midnight – took place on the converted aerodrome at Goodwood in West Sussex.

Le Mans, however, has remained first among equals in sports car racing, an event on a grand scale but drawing its special allure from a certain informality in the atmosphere for competitors and spectators through the week of the race. No longer, of course, will a latter-day equivalent of the Marquis de Portago drive his Ferrari from the factory in Italy to the circuit in the week of the race, or the Porsche mechanics ferry their cars from their rented garage through the country roads to the circuit. But the scrutineering – the elaborate process of verifying the cars' conformity to the regulations – is still carried out in the public space beneath the Gothic cathedral that dominates the city, and

the drivers now take part in the Friday night *Parade des pilotes* through the centre of the city, enjoying the proximity to the fans.

The Grand Prix d'Endurance is a gruelling experience for the competitors – the sort of event, increasingly rare in modern sport, in which time and the weather play a significant part – but it also finds space for things that charm. The race itself has never been just about Bugatti versus Alfa Romeo, Ferrari versus Ford or Audi versus Toyota. It's also the machinery on the margins, the Salmsons, OSCAs, WMs and Paganis, and even more the people who enrich the supporting cast, from Hollywood actors to those lurking, for a variety of reasons, behind pseudonyms: 'Sabipa', 'Eldé', 'Beurlys', 'Pierre Levegh', 'John Winter' and the two Frenchmen who shared a car and, desiring anonymity, called themselves 'Ano' and 'Nimme'.

The legends, great and small, are intrinsic to the race's appeal. The myths, too. An example: over many years, Nescafé sold a brand of instant coffee called Blend 37, designed for those with more sophisticated palates. According to the company's promotional material, the name came from the story of a racing driver named Didier Cambreson who, in 1937, completed the 24 Hours of Le Mans single-handed at the wheel of a car carrying the number 37 in which, while consuming only a cup of coffee during his pit stops, he finished 37th. A nice story, even a superficially plausible one. But in 1937 the number 37 was carried by the car (an Aston Martin) that finished fifth. And among the hundreds of drivers competing at Le Mans between 1923 and today, there is no sign of a M. Cambreson. Blend 37 was discontinued in 2021. The race goes on.

CHAPTER 2

A festival of speed (1906-22)

The idea of a motor race at Le Mans lasting twenty-four hours belonged to Georges Durand, a child of an age when France could glimpse the past and the future waving to each other. He was born in 1864, a year in which the country still had an emperor – Napoleon III, Bonaparte’s nephew – and Jules Verne published *Journey to the Centre of the Earth*, a pioneering work of science fiction. Durand’s birthplace was Fresnay-sur-Sarthe, a farming community north of Le Mans, the best part of a day’s ride on horseback from the city. At twenty he left the old world of rural France in search of the promise of modernity. In Le Mans, where the industries of textiles, tobacco and railway equipment manufacturing flourished, he found a position in the bridges and highways department of the local council.

Le Mans had been an important settlement of a Gallic tribe known to the Romans, who seized it in 47 BC, as the Cenomani. The invaders named the town Vindinium and stayed for 500 years. As their empire collapsed, the legions returned home down the arrow-straight roads that were Rome’s enduring legacy to its outposts, like the one that led due south through pine forests from Le Mans towards Tours.

Durand’s job at the Département des Ponts et Chaussées brought him into contact with the technology that would be a defining feature of the next century. Le Mans, a city of 65,000 people, was becoming a cradle of the infant motor industry, in large part thanks to the presence of the Bollée family.

Amédée Bollée, born in 1844, had worked in his family's bell foundry before branching out to manufacture his first steam-powered vehicle, a twelve-passenger bus, in 1873. Two years later a smaller, lighter vehicle was so well received that fifty examples were built, making it the first series-production car. In 1895 Amédée and his son Léon – a precocious young engineer who had already invented a calculating machine – competed in the Paris-Bordeaux-Paris race, the world's first major event of its kind; they came last of the nine finishers, taking ninety hours, almost twice the time recorded by the fastest car, Émile Levassor's petrol-engined Panhard & Levassor. The following year the first of the Bollées' own petrol-engined cars was entered in the Paris-Marseille-Paris marathon. The son set up a new company, Léon Bollée Automobiles, whose products built a reputation through winning competitions, including the Paris-Dieppe race in 1897.

When Orville and Wilbur Wright visited Le Mans to demonstrate their flying machine in the summer of 1908, Léon Bollée invited the American brothers to use the facilities of his factory. A series of flights, first from the Hunaudières racecourse, south of the city, and then from the Camp d'Auvours artillery field a few kilometres to the east, were enough to convince the sceptical French nation of the viability of heavier-than-air flying machines.

Durand had been observing all this activity with great interest and a growing desire to play a part in it. In 1897 he joined the committee of the Union Auto-Cycliste de la Sarthe, of which Léon Bollée was the founding president, and was an interested observer as European motor sport experienced its early growing pains. In 1905, dissatisfaction with the organisation of the Gordon Bennett Cup, contested by national teams each entering three cars, led the Automobile Club de France (ACF) to put up 45,000 francs – a Grand Prix, or grand prize – to the winner of a race between eighteen cars from France (reflecting its superior number of motor manufacturers), six each from Germany and Britain and three apiece from other nations. This would be a race over a closed circuit, a format pioneered in Belgium in 1902; the ACF ran a competition to host the event through *L'Auto*, the daily sports newspaper that in 1903 had created the Tour de France.

Of the seventeen local authorities showing an initial interest in tendering for the Grand Prix de l'ACF, which required them to pledge a 100,000-franc budget for organisation and infrastructure, only Brie and Le Mans were left to fight it out by the start of 1906. Durand, by this time a member of the city and

departmental councils, took charge of the bid prepared by the renamed Automobile Club de la Sarthe. After raising the required budget from the municipal authorities and local hotels, restaurants and other businesses which could be persuaded to see the commercial possibilities, he and his colleagues invited the ACF to inspect their course. They had planned a triangular sixty-three-mile anticlockwise circuit over mostly straight public roads between villages to the east of Le Mans. The race would take place over two days in late June, the competitors setting out at ninety-second intervals to complete six laps on each day, a total distance of 769 miles. The lowest aggregate time would determine the winner.

Tens of thousands descended on the course, many arriving on special trains from Paris. They were entertained by a fête in the town centre before thronging the specially built grandstands, serenaded by bands and kept in order by 7,000 military personnel from the Camp d'Auvours barracks as they watched the contest between teams from French, Italian and German manufacturers, including such names as Renault, Fiat and Mercedes. Newly developed Michelin wheel and tyre equipment, reducing the time spent dealing with the many punctures caused by the roughly surfaced roads, helped the Renault of Ferenc Szisz to victory at an average of 62mph.

In competitive and promotional terms, the race was a success from which motor manufacturers, local businesses and the wider reputation of Le Mans all benefited, although the size and geographical layout of the circuit meant that a large proportion of those who turned up to watch were able to do so without buying tickets for the enclosures and grandstands. Surveying a loss of 50,000 francs, the ACO was happy to transfer the responsibility of the following year's race to a new bidder, the town of Dieppe. In every other way, the foundations of something called Grand Prix racing had been satisfactorily established.

Motor sport continued in Le Mans, with Durand now acting as secretary-general of a revised regional body called the Automobile Club de la Sarthe et de l'Ouest. In 1911 the society ran a race over a completely different and much shorter circuit of thirty-four miles, starting at Pontlieue, just south of the city, and running down through the town of Mulsanne – the first competitive use of a section of what would become established as the Circuit de la Sarthe – to Écommoy and Le Grand-Lucé.

They called it the Grand Prix de France, but it was poorly supported and featured Le Mans' first fatality, when an axle broke on Maurice Fournier's Corre La Licorne, killing the driver, a local man, as the car somersaulted and caught fire outside Mulsanne. The winner was another local driver, Victor Hémery, in a Fiat. The following year, run over the same circuit in the opposite direction, the renamed Coupe de la Sarthe went to Jules Goux in a Peugeot. In 1913 the last race at Le Mans before the Great War was won by Paul Bablot, an aviator as well as racing driver, in a Delage.

For the next four years the actual fighting would always be far away. But although Le Mans was more than 100 miles from the slaughter at Ypres and twice that from the charnel house at Verdun, the city functioned as a base for the British Expeditionary Force and a reception centre for casualties from the Western Front. In the months that followed the armistice, as France's economy struggled to recover, the organisation in which Georges Durand took a leading role simplified its name. Henceforward it would be known as the Automobile Club de l'Ouest, under the presidency of Gustave Singher, a director of an insurance company, the Mutuelle du Mans. Keen to recommence their activities, the officers of the club decided to start again with a much shorter circuit, not least because a more restricted area would make it easier to control spectators – and to charge them for admission. They drew up a layout that would remain recognisable in its essential outline for the next 100 years.

The new Circuit de la Sarthe would have its start and finish line and its embryonic pits, grandstands and scoreboard on rue de Laigné, the direct road heading north from the village of Arnage to Le Mans, close to the airfield where Wilbur Wright had made his first flight in 1908. Run in a clockwise direction, the track rose after the start before plunging more than a mile down a straight and narrow road towards Pontlieue, named for the bridge over the River Huisne that led into Le Mans itself. At Pontlieue, the only built-up section of the circuit, the cars slowed for a hairpin bend that would send them back up the long incline of rue de Tours and down to a tree-lined kink called Tertre Rouge before the long, straight drag through pine woods to the right-angled Mulsanne corner, representing almost five miles of barely interrupted flat-out running. Another high-speed section led to a right-left combination,

followed by a sharp right named after the adjacent village of Arnage and a fast run to a tricky double swerve at Maison Blanche, its name referring to a farmhouse at the side of the track, before straightening for a return to the start/finish line.

Measuring 10.7 miles, the circuit incorporated many demanding features. From its inception the circuit at Le Mans required engine reliability at sustained high speeds, powerful braking for the hairpin and the right-angled corners, suspension good enough to ride the rutted road surface and steering sufficiently sensitive and positive to cope with the challenge of the fast swerves. Held in August 1920, *Le Meeting de la Reprise* was the name given to the new track's inaugural event, Marcel Violet's Majola winning the race for cyclecars and Ernest Friderich's Bugatti leading home a race for voiturettes of up to 1400cc.

The success of the weekend prompted the Automobile Club de France to return to Le Mans for their first post-war French Grand Prix the following year, for which the ACO began work on constructing wooden grandstands opposite the pits. The big news before the race was the arrival of a team of four Duesenbergs, painted in the white racing livery of the United States, two for American drivers and two with Frenchmen at the wheel, facing opposition from the Ballot and Talbot teams. Jimmy Murphy, a 26-year-old Californian, won the race in just over four hours, beating the Ballots of his compatriot Ralph De Palma and Jules Goux. A year later Murphy would win the Indianapolis 500 in the same Duesenberg. He would be killed in September 1924 during a dirt track race in Syracuse, New York, when his car hit a wooden railing, a piece of which broke off and pierced his chest, but his visit to France had opened the way for a long and mutually rewarding American involvement at the Circuit de la Sarthe.

Even more significant for the future of racing at Le Mans were events called the Grands Prix de Consommation run by the ACO in the years 1920-22. These were fuel economy contests in which cars would cover 100 kilometres at a specified speed, after which the quantity of fuel used would be measured. The formula for each car was worked out according to engine size, total weight, body type, cost of fuel used and average speed. Each entrant was provided with a commissaire who would ensure that the petrol tank was drained on the eve of the event, before the car was held overnight in a *parc fermé*. The official would then supervise the fuelling and travel with the

contestants during their run before unsealing the tank for the judges to measure the quantity of petrol consumed. Citroën cars shone in all three years, winning their class on each occasion.

A year after the last of these competitions took place, the philosophy underlying them played a significant part in the shaping of the next and longest lasting great adventure at Le Mans. The men of the ACO loved the colour and excitement of racing, but behind it all was the belief that competition – in a phrase borrowed from the sport that so powerfully influenced early motor racing – served to improve the breed.

CHAPTER 3

Three men in Paris (1923-26)

It was amid the bustle of the 18th Salon de l'Automobile in Paris in 1922, at which no fewer than eighty-one French motor manufacturers exhibited their latest models, that Émile Coquille, the French agent for the Rudge-Whitworth wheel-manufacturing company of Coventry, met Georges Durand of the ACO. They were introduced by Charles Faroux, the editor of the weekly magazine *La Vie Automobile*. A prominent and well-connected figure in the French motor industry, Faroux listened as Coquille spoke of his interest in promoting an endurance race for production cars. Rudge-Whitworth's hub design, with a single large locking nut, had revolutionised fast wheel-changing at a time when punctures were frequent on rough road surfaces, and Coquille's thoughts were on ways to demonstrate its superiority.

Faroux, the son of a sheep dealer, had studied mechanical engineering and spent time working for a tramway company in the United States before returning to France. Switching to journalism, he joined *L'Auto* to pursue an interest in cars and motor sport. In 1909 he launched *La Vie Automobile*, to which he returned after war service. Already a friend to the luminaries of the ACO, he had taken a keen interest in their activities before and after the war.

When he brought Coquille and Durand together in the impressive surroundings of the Grand Palais, just off the Champs-Élysées, the three began exchanging ideas for a possible competition. Faroux suggested an eight-hour event: four hours in daylight, four at night. Durand was more ambitious. Why

not a full twenty-four hours, around the clock? What could offer a more interesting and rigorous challenge to every aspect of cars and their drivers, contained within a circuit of sensible proportions and with a duration easily grasped by the general public?

This was an era of adventure: of the first non-stop transatlantic flight in 1919, of the first attempts to climb Everest in 1921, of the first motorised crossing of the Sahara Desert in 1922, of ocean liners constantly competing for the Blue Riband. Newspapers and newsreels fed the public's appetite for stories in which the human race's abilities were extended, resetting the boundaries defined by speed, distance and endurance, often with the help of new developments in land, air and sea transport.

Durand's idea was not entirely novel. Earlier that year, on a five-kilometre circuit between villages to the north-east of Paris, a twenty-four-hour race called the Bol d'Or had been held for motorcycles, sidecars and cyclecars of up to 1100cc. Only one rider or driver per machine was permitted, and the fifty-two entrants were given a rolling start behind the organiser's car. The winning cyclecar covered 900 miles on bad roads in dustbowl conditions, drawing protests from local residents whose sleep was disturbed. Durand's idea of taking the format and improving it caught the imagination of his companions.

The ACO met to consider and endorse the plan in late October. Immediately Durand and his colleagues began drawing up the regulations for a race to be held the following May. Faroux would take the title of *commissaire-générale*, the clerk of the course or race director. Invitations were issued to manufacturers, asking them to send their entries by the end of February, along with their entry fees, which ranged from 1,000 francs for cars with engines up to 1100cc to double that for engines above two litres. Crucially, the event would be restricted to cars that could be purchased for road use. There would be no place for pure racing machines like those that had taken part in the 1921 Grand Prix. This was an event in which manufacturers could show the public the qualities of the cars they were putting on general sale: the kind of machines designed for the fast long-distance touring that improved road networks were making possible for those with the necessary means.

A minimum of thirty examples would have to be manufactured before a car was deemed eligible, a process known as homologation. They had to have 'four comfortable seats' (except for those under 1100cc, which could have two), and they were required to be fitted with bodywork and equipment that included

wings, running boards, headlights, a rear-view mirror and a warning device such as a horn. For those without a fixed roof, a retractable hood would be necessary. Each car's bodywork would be painted in its national colours: blue for France, white for Germany, red for Italy, green for Britain, yellow for Belgium, white and blue for the United States. Each would carry a racing number, allocated by engine size, in descending order. Two drivers would be named for each car, both to be in possession of driving licences from their national motoring bodies. They could take turns at the wheel as they wished, but only one was to be on board at any time. A 60kg bag of ballast, representing the weight of a passenger, would be carried for each vacant seat.

Every competitor would be required to cover a minimum distance to qualify as a finisher: about 500 miles for a car of up to 1100cc, 750 miles for one of up to two litres, 850 miles for those of up to three litres, and 1,000 miles for cars with engines up to the maximum size of six litres. These represented average speeds of between 24mph for the smallest and 42mph for the largest. The distances were increased by 40 per cent for cars with supercharged engines. Those falling heavily behind their designated minimum speeds would be eliminated on the spot. Since this was intended to be a test of efficiency and reliability as much as speed, the replenishment of fuel, oil and water would be permitted only at minimum intervals of twenty laps. Engines had to be cut during refuelling and restarted using the on-board electrical starter.

Then came the regulation that, as the years went by, would cause so much toil and sweat for luckless drivers. All repairs that might be required would be carried out by the driver alone. Assistance from the car's other driver or any mechanics would be restricted to placing the necessary tools and spares on the pit counter. It would apply whether the car had made it back to the pits or had stopped out on the circuit.

The ACO, Rudge-Whitworth and *L'Auto* put their names to the event, respectively as organiser, sponsor and chief publicity organ. Unusually, there would be no official winner or award presented for the first race. Entrants would be competing principally for a triennial trophy – the Rudge-Whitworth Cup, with a prize of 100,000 francs (then the equivalent of about £1,400, or £60,000 today) – which would not be awarded until the third edition of the race in 1925. A manufacturer whose car qualified by meeting its target distance in the 1923 race would be eligible to enter again in 1924, and those who

succeeded a second time would go forward to the final round in 1925. In 1924 a second triennial competition would begin, overlapping the first, to be completed in 1926. And so on, potentially ad infinitum. Manufacturers could enter models of different sizes in consecutive years, while retaining their eligibility for the triennial cup.

As an attempt to get competitors to commit themselves to the event beyond its inaugural edition, the Rudge-Whitworth Cup served an initial purpose. But it would soon be eclipsed by the glory attached simply to crossing the finish line first, just like other races. Visionaries though they were, the inventors of the 24 Hours of Le Mans – the Grand Prix d'Endurance de 24 Heures, as it was formally known – would take a while to understand the true nature of their creation.

During the early spring of 1923, the road surface around the circuit was covered and rolled with a mixture of gravel, earth and tar. Then it was sealed with calcium chloride, used to keep dust to a minimum, although in hot weather its fumes could create problems of their own. Footbridges were built for spectators over the track just past the pits, at the Mulsanne corner, and at Arnage. Picket fences were erected to hold back spectators who had bought their tickets from the ACO's office in the Place de la République. Lights were set up to illuminate the pits, the finishing straight and the most significant corners. In the columns of *La Sarthe*, a notice was published informing local people of the restrictions on pedestrian movement over the weekend, adding a warning: 'In the communes of Le Mans, Arnage, Moncé-en-Belin, Mulsanne and Ruaudin, the owners of cattle, horses, dogs, poultry and other animals of all kinds must keep them shut away in stables, kennels and henhouses or tied up from 3pm on May 26 to five o'clock on May 27.'

Seventeen manufacturers were represented in the entry: four cars from Rolland-Pilain, three from Chenard et Walcker, two apiece from Excelsior, La Lorraine, Berliet, Brasier, Corre La Licorne, Georges Irat, Bignan, Bugatti, S.A.R.A. and Salmson, and one from each of Bentley, Delage, Montier, Vinot-Deguignand and Amilcar. Of the thirty-three starters, thirty-one were convertibles. All the entries were French, bar three: the pair from Excelsior, a Brussels manufacturer whose pre-war cars had attracted the patronage of the Belgian royal family, and a three-litre Bentley, carrying the badge of a

company that had delivered its first production car to a customer only two years earlier.

The Bentley, a works-assisted entry, had been driven from the company's headquarters in Cricklewood, a north London suburb, by John Duff, its owner, and Frank Clement, a Bentley employee, with two mechanics and all their spares and luggage in the rear seats. Taking the four-hour crossing on the Newhaven-Dieppe ferry, they became the forerunners of countless British competitors and enthusiasts making the trip to the race in the decades ahead. Duff had persuaded a sceptical W. O. Bentley, the firm's founder, to get his staff to prepare the car in the factory's competitions department. 'No other British manufacturer was supporting the event and I thought they were very wise,' W.O. wrote in his autobiography. 'I viewed the whole thing with the gravest suspicion.' At the last minute, he made the decision to cross the Channel and take the train down from Paris to Le Mans to observe the car's performance for himself.

The race began at four o'clock in the afternoon on 26 May. Since the clocks would go forward at eleven o'clock that night, the last occasion on which France would observe a shift to summer time, it was due to finish the following afternoon at five. The date had been chosen in the hope that spring would guarantee good weather, but as the cars lined up on a two-by-two grid the circuit was struck by a sudden and vicious hailstorm. The drivers would endure heavy rain, gloom and gusty winds through the first four hours; none of the entries was equipped with windscreen wipers, an invention already in use in the US but yet to be adopted in Europe. The two 5.4-litre Excelsiors – painted in the yellow of Belgium – started at the front, but they were soon overtaken by the trio of blue factory-entered three-litre Chenard et Walckers and by the dark green Bentley. Within a few laps mud had covered the cars, making their individual racing numbers all but indecipherable to spectators who had braved the inhospitable weather.

The first driver changes took place after three hours, and as the rain eased a Chenard et Walcker and a Bignan were fighting a fierce battle at the front. The Bentley, although handicapped by the fact that brakes were fitted only to its rear wheels, made the fastest lap of the first twelve hours in 10min 28sec, with Duff taking an initial four-hour stint until Clement replaced him. Neither driver wore head protection or goggles.

As dusk fell, the lighting system installed by the Société des Appareils Magondeaux of Paris went into action. Army searchlights mounted on lorries illuminated the corners and lights had been strung above the track between the pits and the grandstand. Facilities in the paddock were primitive, but the French representatives of the Hartford shock absorber company had erected a tent in which to feed drivers and guests 150 gallons of onion soup, fifty *poulets rôtis* and 450 bottles of champagne. Meanwhile a *Grande Fête de Nuit* entertained the crowd with an American bar, a jazz band to which spectators could practise their foxtrot or one-step, an open-air cinema, a late-night fireworks display and other attractions, under the direction of Rigollet's Bar of the Champs-Élysées. Soon after midnight, a second Chenard et Walcker overtook the Bignan to join its teammate at the front, the pair running barely 50 metres apart, with the Bentley also coming through to take third place.

Despite the early conditions, and the deteriorating state of the roads as the cars pounded over the unstable surface, there would be thirty finishers from the field of thirty-three, some of them with interesting tales to tell. When one of the Excelsiors went into a ditch, it took its driver an hour to dig it out before restarting to finish ninth; he could not have known that he was inaugurating a tradition. The Bentley, too, suffered misfortunes. One headlight was smashed by a stone thrown up from the loose surface and the fuel tank sprang a leak shortly before noon on Sunday, bringing Duff to a stuttering halt near Arnage. Stranded, he ran the three miles to the pits, where Clement, his co-driver, borrowed a gendarme's bicycle and set off to the car with two cans of petrol slung over his shoulders, riding against the oncoming cars until he thought better of it and got off to push his bike the rest of the way. He plugged the hole in the tank with a wooden bung before filling up, restarting and heading back to the pits with the bike across the rear seats. After sealing the tank more effectively, and having lost two and a half hours, in the closing stages he showed what might have been by setting the fastest lap of the race at 9min 41sec, an average of 66mph, while finishing fourth.

The first car home was the Chenard et Walcker of André Lagache and René Léonard, followed by the sister car of Christian d'Auvergne and Raoul Bachmann, with the Bignan of Paul Gros and Baron Raymond de Tornaco in third place. Gros had stepped out of the Bignan just past the finish line and was crossing the track to greet a friend when he was hit by Bachmann's car and thrown up in the air, breaking his arm on landing. The winners had covered

128 laps, or 1,380 miles – the equivalent, noted the awestruck correspondent of *La Sarthe*, of driving from Paris to Berlin and back – at an average of 57.5mph. None of those still running at the end of twenty-four hours had failed to reach their target distances, meaning they all qualified to return the following year and continue competing for the Rudge-Whitworth Cup.

And so Chenard et Walcker would go down in history as the race's first winners. The company had been founded in Asnières, an industrial suburb of Paris, in 1898 by Ernest Chenard, a former railway engineer and bicycle maker, and Henri Walcker, who had trained as a mining engineer. By the time Walcker died in 1912, aged thirty-five, during an operation to remove his appendix, they had become one of France's ten biggest automobile manufacturers, with agents in London, Vienna, Moscow, Barcelona, Porto and Calcutta. When Chenard also died, after a heart attack, in 1922, the direction of the company was taken over by his sons, Ernest and Lucien, and the design of the cars was placed in the hands of Henri Toutée. When Toutée's new 15CV Sport model, with a four-cylinder overhead-camshaft engine, won the inaugural 24 Hours of Le Mans, they were making 4,000 cars a year, mostly two-litre family models selling for around 7,000 francs each, much less than the equivalent Renault.

Of the winning drivers, Lagache was the company's engineer and test driver; he had grown up in Pantin, a northern suburb of Paris close to the factory, where Léonard, a coachman's son from Pau, had taken a job as a mechanic. The Belgian Baron Raymond Ghislain Victor Adolphe Marie de Tornaco, co-driving the third-placed Bignan, became the first aristocrat to distinguish himself at Le Mans.

Reports of the event took pride of place on the front page of Monday's *La Sarthe*, flanked by news of long-postponed German efforts to satisfy the requirements of post-war reparations and of an anniversary march by survivors of the Paris Commune of 1871. Equipment suppliers were eager to respond to success: the Chenard et Walckers had been on Michelin tyres, but the Englebert company of Belgium was able to take out advertisements proclaiming its part in the achievements of fifteen of the thirty finishers. The Bentley was the lone user of tyres from the Rapson company of south London, whose products – advertised with royal warrants granted by King George V and the Prince of Wales – were manufactured to a closely guarded design and declared to be 'unpuncturable'; they completed the twenty-four hours without

needing to be replaced on a car that had covered more than 1,100 miles at racing speed on a rough surface.

On their return home, however, the Bentley team discovered that the event had made little impact on the British public. During the days before and after the race, the sports coverage of *The Times* was focused on county and public schools' cricket matches, the polo at Hurlingham and Roehampton, the Oxford summer eights and the news that Suzanne Lenglen, the great French tennis player, was intending to return to Wimbledon in an attempt to win the ladies' singles titles for the fifth time in succession. The specialist press, however, had taken notice. In *The Autocar*, a dramatic full-page illustration showed cars racing through the dark and an extensive report by W. F. Bradley praised the Chenard et Walcker's four-wheel servo braking system, along with the team's 'clever and experienced drivers backed up by perfect pit organisation'. *The Motor* called it 'an unqualified success' but noted the 'atrocious and dangerous' state of the road surface.

The poster for the inaugural race had shown a painting by one H. A. Volodimer of a car racing through the night, drops of rain glinting in the beam from its headlights as it thundered on. For the second year's poster, an anonymous artist offered a different vision. It might have been a design for the jacket of *The Great Gatsby*, then receiving its final touches from F. Scott Fitzgerald's pen during the American author's summer of 1924 on the Côte d'Azur, 600 miles to the south. The illustration showed flappers in summer dresses and young sports in black tie dancing under the moon, the stars and a fireworks display; a powerful car racing past the grandstands seemed almost like a sideshow.

In the hope of better weather, the date of the race weekend had been moved to the middle of June. Drivers were asked to wear some form of protective headgear, whether leather or linen wind caps or polo-style helmets made of layers of resin-soaked fabric. Under a new rule, they would have to stop at the pits at the end of their fifth lap, erect their cars' hoods, and complete at least two laps in that configuration before furling them again. The minimum distances for all classes were more demanding: the smallest cars, for example, with engines below 1100cc, were now required to complete eighty-five laps rather than fifty-two. And, responding to confusion and a lack of

interest in the original competition format, the ACO announced that although the triennial Rudge-Whitworth Cup would run to its conclusion in 1925, it would be replaced by a biennial event, the first edition to begin immediately.

A year after their glorious win, the Chenard et Walcker team returned to the Sarthe in a convoy of a dozen vehicles, displaying their racing machines in the Place de la République before installing themselves at Les Pins, a property in the hamlet of Les Hunaudières, near the old racecourse on the circuit's infield. But this time the Bentley team was ready for them, along with the two drivers who had been unlucky the year before. John Duff's car was entered again, but now with more wholehearted support from W. O. Bentley. In direct response to the problems experienced in the first race, brakes were fitted to the front wheels as well as the rear, coconut matting protected the vulnerable petrol tank, fuel pipes were doubled up and covered, and stone-guards were attached to the headlights.

Duff, born to Canadian parents in Jiujiang on the Yangtze River, received his education in Canada but was back in China when war was declared in 1914. At nineteen he travelled to England – crossing Russia en route – in order to join up, attained the rank of captain and was wounded at Ypres. In peacetime he set up a Bentley dealership in London and raced at Brooklands, breaking the record for the Double 12. Frank Clement was a test driver who had joined Bentley's new competitions department in 1921 and had performed well at Brooklands and in the RAC Tourist Trophy on the Isle of Man. W. O. Bentley appreciated his technical knowledge and his pit work, calling him 'the least spectacular [but] the calmest and *fastest*'.

On the Thursday and Friday before the race, the forty-one entrants were ordered to report to the Halle aux Toiles, a nineteenth-century market building erected for the city's successful textile industry on the site of a demolished monastery, where the scrutineering process would take place. Each car was allotted fifteen minutes in which its dimensions and equipment would be inspected for compliance with the regulations and conformity with the specification given in the manufacturer's catalogue.

The weather was sunny all week and hot by the weekend, pleasing spectators who had pitched their tents on the circuit's new campsite. Those with tickets for the enlarged grandstand watched a novel method of starting the race: once more the cars were formed up in a two-by-two grid, but this

time the drivers stood beside their silent cars until, at the drop of the flag, they jumped in, started their engines and set off. The Lorraine-Dietrich of Robert Bloch, whose mandatory head-covering was a flat cap, got away just ahead of Lagache's Chenard et Walcker. Duff in the Bentley – again the only British entry – and the Bignans of Philippe de Marne and Jacques Ledure were slow to start but were soon battling at the front of the field, although there was an early double disaster for Bignan when Ledure blew a head gasket and de Marne, his radiator having boiled dry, was disqualified for adding water inside the new twenty-lap limit. Duff had practised erecting his car's hood, getting it down to less than a minute, earning time back on rivals who had not thought to take the procedure as seriously. His ingenuity extended to arranging for a second set of signals to supplement those being shown by his pit crew. Stationed on the grass verge on the inside of the exit of Mulsanne corner, his helpers were given information via a field telephone connected to the pits.

The power of Chenard et Walcker's latest four-litre engine appeared to be setting up the previous year's winners for a repeat victory when, at around eight in the evening, the car caught fire on the Mulsanne straight. Lagache leapt out and watched as his machine, with its new lightweight bodywork, a wooden frame covered with calico, incinerated itself.

While spectators were entertained by a hunting-horn quartet, a jazz orchestra, a duo of dancing acrobats and a boxing tournament in a ring set up behind the grandstands, on the track a prolonged duel through the hours of darkness between the Bentley and the Lorraine-Dietrich shared by Bloch and Henri Stalter saw the lead changing several times. The battle was still going on as spectators attended Sunday morning mass in a temporary chapel but ended at lunchtime after the Lorraine drivers tried to regain time lost to two punctures and pushed their six-cylinder engine too hard, Stalter bringing the car to a halt in the pits with a broken valve. Duff walked along the pits to commiserate with his rivals and to congratulate them not just on their performance but on their sporting behaviour. 'With loose stones flying,' he told the correspondent of *The Autocar*, 'it was no easy matter to get by the Lorraine-Dietrich, but the drivers gave me all the room I could desire.'

The British car had endured delays caused by a malfunctioning starter motor, a stray piece of metal jamming the gear-selection mechanism, fractured windscreen pillars and broken rear dampers. Despite all that, and a row over

lap-counting with the timekeepers, Duff and Clement entered the final stages of the race with a comfortable lead over the Lorraines in second and third places. But with ninety minutes to go, and the car already having passed its target distance of 120 laps, a precautionary decision to change both rear wheels almost caused disaster when one of them jammed.

Half an hour went by before Clement, who had brought the car into the pits, succeeded in freeing it and sent Duff on his way with his lead cut from nine laps to one by the finish. Afterwards a mechanic examined the damaged hub that had almost cost them the race. He discovered that the broken-off end of a reaming tool had been hammered into the mechanism. But with victory secured, no further investigation of a possible attempt at sabotage was made. Duff and Clement had given Bentley a victory, covering 1,298 miles at an average of 53mph, that would establish the foundation of a legend.

In marked contrast to the previous year, almost two-thirds of the starters had fallen by the wayside. 'A veritable hecatomb,' Lucien Cazalis called it in his analysis for *La Vie Automobile*. 'It was with stupefaction that everyone – organisers, competitors, spectators – watched the successive retirements over the course of these terrible 24 hours.'

On the Monday morning, a paragraph appeared at the foot of one of the overseas news pages in *The Times*. Under the headline 'British motor victory in France', the paper carried a brief report sent by the Reuters news agency. In *The Autocar* the following Thursday, an editorial drew a general conclusion from Bentley's feat, noting 'the enormous advantage accruing directly and indirectly to motorists from such speed events. The far-reaching effect of racing upon design and progress is not generally appreciated.' In the following week's issue of the magazine, those associated with Duff and Clement's success took out full-page advertisements to advertise their role. Among them were the Price Patent Candle Company, pointing out that the Bentley's engine had been lubricated by their special racing oil, Peto and Radford, makers of the car's battery, Rapson tyres ('Every Rapson tyre is a racing tyre!'), Hartford shock absorbers, KLG plugs, Smith's instruments, Rudge-Whitworth detachable wire wheels and M-L magnetos. W. O. Bentley authorised an advertisement calling the win 'a triumphant vindication of the Bentley car and the designing policy that stands behind it', emphasising that the winning car was as suitable for touring as for racing. Underneath was a list of prices: a

chassis and running gear from £895 for those who liked to order their own coachwork, and a complete car from £1,100 (£74,000 today).

On the front page of the following morning's *La Sarthe*, a lengthy report concentrated on the speeches made at the ACO's post-race gala dinner. Georges Durand harked back to 1906, a time when there were only fifteen or twenty motorists in the whole *département* and it was hard to convince the public of the justification for paying the ACF 100,000 francs to host their first Grand Prix. Now he could proudly announce that the club had just become the first of its kind in France to welcome its 10,000th member. The mayor of Le Mans, Olivier Heuze, proposed a toast to the race organisers for their contribution 'to the sporting life of the region and to the prosperity of our city by attracting so many spectators from elsewhere'. He had seen nothing yet.

Buoyed by their success, Durand and his colleagues were in the mood to expand. Among the ACO's principal ambitions was the purchase of the land where the first two editions of the race had started, at Les Raineries, the fields where they had erected their temporary pits and grandstand, and where they now hoped to build permanent facilities. When the landowner refused to accept their price, they called his bluff. For 1925 the temporary pits and grandstands would be moved across to the *route nationale* 158, to the straight, open stretch of road just after the Tertre Rouge kink, close to the old Hippodrome. The work was completed within six weeks.

A more lasting development was the growth in international participation. Alongside the customary mass of French entries, the forty-nine starters included five cars from the UK – two Sunbeams and a little 750cc Austin as well as two Bentleys – plus OMs and Diattos from Italy and a Chrysler from the United States, entered by a Parisian dealer. Duff and Clement were back in the first of the Bentleys, with Bertie Kensington-Moir, the manager of the firm's service department, and Dr Dudley Benjafield, a renowned bacteriologist, in a second car. Their principal competition seemed likely to come from the Lorraine-Dietrichs and from the Sunbeams, the latter crewed by Sir Henry Segrave, winner of the French and San Sebastian Grands Prix in the previous two years, the former champion jockey George Duller, the French

aviator, submariner and racing ace Jean Chassagne, and S. C. H. 'Sammy' Davis, the sports editor of *The Autocar*.

A new regulation required cars to cross the finish line at the end of the twenty-four hours in order to qualify as finishers. No petrol, oil or water could be taken on in the final hour, and lead seals were introduced for the use of the commissaires who supervised refuelling, and who became known as *plombeurs* (from *plomb*, French for lead). Resurfacing of the road from Pontlieue to the Mulsanne corner had improved conditions for the entrants, and the circuit would be closed on the Friday in the morning and the night for two three-hour practice sessions.

It was between those sessions that the Grand Prix d'Endurance claimed its first fatality, when André Guilbert, a mechanic for the Besançon-based Ravel team, went out to test a modification after the roads had been reopened to normal traffic. Accelerating out of the Pontlieue hairpin, Guilbert hit a delivery van head-on. Carried away from the scene on a mattress, he was taken to the clinic of Dr Henry Delagénère, a pioneering gynaecological, facial and gastric surgeon. Founded in 1890 as the first private clinic in France, Dr Delagénère's establishment would receive many injured drivers for urgent treatment in the ensuing years. The wounds to Guilbert's chest and legs were so severe that he died there four days later.

In the sweltering heat of the weekend, Charles Faroux's customary pith helmet was not the only one to be seen. A further change in the starting procedure required the cars to be lined up diagonally along the front of the pits with their engines turned off and hoods furled and strapped down, half-pointed in the direction of travel, the largest at the front. Opposite them were spectators who had paid 40 francs for a grandstand seat and 20 francs to stand behind an earth mound separating them from the track. The drivers would wait on the opposite side of the road until, at the fall of the flag and the command '*Partez!*' over the loudspeakers, they would run across to the cars, erect the hoods and the side curtains, start their engines and set off. A 500-franc prize would go to the driver who put his hood up fastest and there was a 1,000-franc bonus for the first driver to complete the opening lap. The hoods would have to stay up for twenty laps. Once again, Duff had given time and thought to his preparations and was first away, winning the 500 francs and leading the string of cars breasting the hill and heading off down towards Pontlieue for the first time.

He missed the bigger prize when Segrave overtook him in one of the three-litre Sunbeam Super Sports models, picking up a further 500 francs for leading the race at the end of the first hour. Segrave battled with Kensington-Moir's Bentley until, after twenty laps, he pulled into the pits, folded the hood away, filled the car up with petrol, oil and water, took off his hard-shelled polo helmet and handed over to Duller. Twelve laps later the car's clutch burned out and the first of the Sunbeams was pushed away. The second car, being driven more circumspectly, was faring better.

On his first lap, three hours into the race, Sammy Davis saw the evidence of the second fatality of the weekend and the first to occur during the running of the 24 Hours itself. Marius Mestivier had just passed the temporary grandstands in his Amilcar when, for no apparent reason, the little car left the track at high speed and somersaulted three times. Protected only by a linen wind cap, Mestivier's skull was crushed. He died instantly. Two of his friends were soon making a collection for his young wife; by Sunday night spectators had contributed 15,000 francs.

Davis noted the contrast between the smooth new surface of the long straight, on which the Sunbeam was reaching 90mph, and the roughness of the remainder of the circuit, where ruts and giant potholes were soon appearing and chloride fumes were getting under the rim of his goggles and into his eyes. Pebbles thrown up by rivals' tyres were another danger; when a particularly large stone glanced off the rim of the steering wheel to hit his head with a bang that left him feeling dizzy for the rest of the lap, he resolved to follow Segrave's example in wearing a polo-style helmet.

At dusk, Davis found himself falling under the spell Le Mans could cast on the drivers. The stretch between the Mulsanne corner and Arnage was 'transformed into a scene of extraordinary beauty as the setting sun sent out shafts of blood-red light between the heavily scented pine trees to play in a thousand shades upon the clouds of dust. It almost seemed as though one were utterly alone.' Less pleasantly, he was also having to cope with the way the dust was making the throttle stick open every now and then, forcing him to switch the engine off while braking and changing down for corners. And when dawn came, he encountered another phenomenon of the Circuit de la Sarthe: 'Curious layers of white mist made certain corners very deceptive until the sun came out.' At which point spectators who had slept through the early hours in communal tents behind the grandstands rose and prepared themselves for the

day, the women – *en déshabillé galant*, in the words of *La Sarthe* – able to use toilet facilities discreetly hidden behind green sheeting.

The other British entrants had been experiencing mixed fortunes. A little two-seater Austin Seven was out with a holed radiator after only nine laps, far too early to be allowed to take on more water. The two factory-entered Bentleys, both with enlarged 3.3-litre engines, made an even worse mess of things. According to the team's calculations, their tanks were filled with enough petrol to complete the regulation opening stint, but they had failed to account for the increased consumption caused by running with the hood up for the opening session and by the increased speeds reached on the long section of resurfaced road. Kensington-Moir stopped at Pontlieue, out of petrol, and was gone from the race before Benjafield could take the wheel, while Duff's car, in a similar predicament, was refuelled by nefarious means, the engineer Walter Hassan cycling out to the stranded machine carrying a concealed water bottle filled with enough petrol to get the car back to the pits. Without divulging the reason for a delay of more than an hour, the Bentley was filled up and went out again, continuing to run until its race was ended by damage from a carburettor fire.

After the disappearance of Segrave and the Bentleys, the race became a battle in which the Lorraine-Dietrich of André Rossignol and Gérard de Courcelles, a decorated Great War fighter pilot, held off the second Sunbeam. Chassagne and Davis were gradually hauling in the leader until, with six hours to go, they were forced off the road by another car. Thereafter, with a bent rear axle, their priority was to keep the second Lorraine at bay. De Courcelles and Rossignol crossed the line as winners to great acclaim, having covered 1,388 miles at an average of 57.8mph.

This was a new world record for a twenty-four-hour drive, giving their UK dealers something to shout about in advertisements in the British motoring press for the 'Silken Six' manufactured by a company – the *Société Lorraine des Anciens Établissements de Dietrich et Cie de Lunéville* – founded to make railway engines, branching out into automobiles in 1896. In 1919 a new technical director, Marius Barbarou, supervised the creation of a 15CV car which formed the basis for the winning B3-6 Sport model, its advanced 3.5-litre six-cylinder engine using aluminium pistons and twin carburettors.

As far as the organisers were concerned, however, the winners were Chenard et Walcker, following up their 1923 victory by capturing both Rudge-

Whitworth trophies, triennial and biennial, with a new and strikingly different 1.1-litre model, the Z1 Spéciale. Again from the drawing board of Henri Toutée, the cars had caused a stir when they appeared for scrutineering, their two-seater chassis covered in all-enveloping bodywork of futuristic design, inspired by a Bugatti which had appeared at the 1923 French Grand Prix. One of the cars took the first and last triennial cup with the drivers Robert Sénéchal and Albéric Loqueheux, while the inaugural Biennial Cup went to their teammates Raymond Glaszmann and the Spanish driver Raphaël Manso de Zúñiga. The two cars crossed the line almost abreast, tenth and thirteenth overall, in what may have been the first example of a celebratory formation finish at Le Mans.

Whereas sports models with separate mudguards had been given the generic name ‘Torpedo’, cars with bodywork fully enclosing the wheels would be known as ‘Tanks’ for their superficial resemblance to the fighting machines introduced during the Great War. Since no such Chenard et Walcker was made available to the public, their appearance at Le Mans could be taken as an early sign of the event’s move away from a strict concentration on series-production touring cars towards what would become known as prototypes.

The lone Chrysler emerged safely from an excursion into a ditch but could only finish two laps short of its target distance. A consolation for the first entry to compete in the Grand Prix d’Endurance in the colours of the United States was a 500-franc prize for the quietest car in the race – ‘as silent at the finish as at the start’, its advertisement in *La Vie Automobile* boasted. There was a special award of 2,000 francs for the Italian driver Tulio Vesprini, who had seen Léon Saint-Paul’s Lorraine-Dietrich crash heavily at Maison Blanche soon after midnight. Leaping from his own Diatto, he carried the injured driver to safety by the roadside, waiting with him until medical help arrived.

The drivers of the surviving Sunbeam pressed on to the end in a successful effort to split the Lorraines and secure second place, despite the bent axle. The sense of satisfaction, Sammy Davis reported, was extraordinary. The finish was ‘the most wonderful thing in the world as the car carried its complete crew slowly past the cheering pits and grandstand to receive a bouquet of flowers and the fervent felicitations of perfect strangers and to walk, for a short span, with the gods on earth’.

The ACO's bluff had worked, and the owner of the 175 acres at Les Raineries accepted their price for the site of the original starting area in time for new pits, grandstands (with seating reserved for a growing press corps), a more comprehensive scoreboard and a large hangar-like restaurant for the public to be in place, along with a car park for 3,000 vehicles, for the race's fourth edition in 1926. In the days before the race, twenty-seater buses took spectators paying six francs each on a tour of what was now officially named the Circuit Permanent de la Sarthe. To go with the new facilities, the whole circuit had been resurfaced, some of it matching the previous year's work on the section from Pontlieue to the Mulsanne corner in its use of limestone bound with sodium silicate, the rest using slabs of porphyry bound with tar and water. Signs had been erected to tell the drivers when they were 200 metres from each corner.

In the Halle aux Toiles, a new layout greeted the forty-one competitors as they arrived for scrutineering. At twelve separate desks, commissaires would check the cars for conformity to the rules on bodywork, lights, self-starters, correct paintwork and race numbering, and tanks for petrol, oil and water. In an attempt to simplify the complexities attached to the Rudge-Whitworth competitions, while maintaining the philosophy of rewarding cars of all sizes for performance against targets, a new Index of Performance award was created. The actual distance a car had covered during the 24 Hours would be divided by its target distance. In various forms, this would be a lasting feature of the race.

The personnel of the two most likely contenders for overall victory, Lorraine-Dietrich and Bentley, were quartered at the Hôtel Moderne on rue de Bourg-Belé, where the patron proudly remembered that the winning teams had been garaged during the Grands Prix of 1906 and 1921. They were joined by a new arrival: Peugeot, whose management had already provided red-painted course cars to the ACO. Another first-time entry, the Willys-Knight-Overland team from Toledo, Ohio, entered by their French dealer, set up camp in the village of Écommoy.

Bentley had recently come through a financial crisis which saw the original company wound up and a new one established with backing from Woolf Barnato, a 30-year-old playboy and sportsman whose vast fortune, made by his father, a one-time second-hand clothes dealer in London's East End, had come from South African diamond and gold mines. Educated at Charterhouse and

Trinity College, Cambridge, 'Babe' Barnato had received the first tranche of his inheritance in 1914, when he turned nineteen, shortly before going off for wartime service as a captain in the Royal Field Artillery. Investing an initial £100,000 in Bentley, he took over the chairmanship of the company.

The weather was poor in the week leading up to the race and at ten o'clock at night during a wet practice session, flames rose high from the curves between Mulsanne and Arnage. Gabriel Aladame had lost control of an Overland coupé and hit a tree, without serious injury to himself but destroying the car. For the race, however, the rain mostly held off, and it was dry if cold for mid-June when André Boillot took an early lead in a 3.8-litre Peugeot, the Bentleys and Lorraine-Dietrichs fighting it out behind him. Duller took his Bentley past Louis Rigal, Boillot's co-driver, before putting the car into a sandbank and losing two laps while extricating it. The Peugeot was lying second when, in a decision that brought anger from spectators, it was disqualified for a broken windscreen support, the team unable to produce a spare screen to replace the one that had fallen out and smashed. The team's other car was also eliminated after its driver broke the rules by bump-starting it after the battery had lost its charge.

At night in the Hartford company's bar and restaurant, white-coated waiters plied competitors and their associates with champagne, *pâté de foie gras*, roast chicken and sliced ham from Austria and Italy. But attention was held by a race of attrition, with barely half the field still running by mid-morning. Three Lorraines and three Bentleys were occupying the top six places when the British team's effort began to fall apart. First the car of Clement and Duller retired with a broken valve, then a second car, finished in pale green and owned by Arthur 'Scrap' Thistlethwayte, a young landowner, went out with a broken rocker arm, and finally the third ran out of brakes while fighting for second place with Davis at the wheel and ended its race stuck in the sandbank at Mulsanne corner with only half an hour to go. Not even the surreptitious provision of a spade could help the driver dig it out in time to complete a final lap as the clock passed four o'clock. Despite having covered 1,477 miles – 137 laps, well over the target distance – before the mishap, the dark green car bearing the No. 7 was classified as a non-finisher.

Bentley's failure handed their French rivals the first clean sweep of the top three places in the race's short history, with André Rossignol and Robert Bloch in the winning car. If that made it seem easy, the impression was wrong:

only thirteen cars qualified as finishers, but the race had been fiercely contested from first to last. On a fast new surface, using the same set of Dunlop tyres throughout, the winners had covered 1,583 miles at an average of 66mph, setting another world record: the first to average more than 100kph for the full twenty-four hours. '*Un triomphe pour l'industrie française*' was the front-page headline of *La Sarthe's* Monday morning edition.

The 1925-26 Biennial Cup was initially awarded to the first-placed Lorraine-Dietrich, but an objection by the OM team forced a recalculation which gave the win to the first of the two-litre Italian cars, driven by Nando Minoia and Giulio Foresti, who also became the first winners of the Index of Performance. Of the American starters, the Willys-Knight retired with a broken fuel line while the open-bodied Overland, with streamlined headlamp brackets that made the front of the car resemble a sculpture by an Italian Futurist, reached the finish but not its target distance. When the Willys company returned to France, it would be as the manufacturer of Jeeps used by the US Army after the D-Day landings in 1944.

CHAPTER 4

Racing green (1927–30)

Nine years after the end of the Great War, Europe was suffering from political turmoil and economic uncertainty. In France, a weakened franc meant high inflation and a sharp drop in automobile sales, including exports, which had been running at 30 per cent of production but were now down to around 6 per cent. Just twenty-two cars made it to the start of the 24 Hours of Le Mans in 1927; barely half as many as had competed a year earlier. Most of the starters were in the small-capacity classes, hoping for success in the Rudge-Whitworth Cup, run on a handicap system, rather than overall victory.

In an attempt to stem the arrival of prototypes, the organisers now insisted on written assurances that thirty examples of each entered car had been produced. Cars of between 1100 and 1500cc were permitted to have three seats instead of four, thus relieving them of 60kg of ballast. Standard Oil's 'Eco-Essence' petrol was supplied to the teams by the organisers and carefully monitored, preventing the use of special racing mixtures. Another new rule stipulated that all tools and spares had to be carried in the car.

Among the absent teams were France's big guns: Lorraine-Dietrich, Chenard et Walcker – both former winners – and Peugeot. From England, Sunbeam did not return. Only four cars, all with engines bigger than 2000cc, were in serious contention for the overall victory, and only one of them came from France: a single three-litre Ariès for Robert Laly and Jean Chassagne. One Bentley stood out: a car with a new 4.4-litre engine for Frank Clement and Leslie Callingham, a former Napier car salesman, alongside the two three-litre models, one for George Duller and Baron André d'Erlanger, a French

banker, and the car that Sammy Davis had failed to dig out of the sand a year earlier. Dudley Benjafield had bought it in the meantime and invited Davis to share it with him. Although it now bore the No. 3, the Benjafield/Davis car was about to enter history under its nickname of 'Old No. 7'. All the Bentleys were on Dunlop tyres.

Although thin, the field was not devoid of interest. Jean-Albert Grégoire and Pierre Fenaille, two young engineers, had entered a pair of cars under the name of their new company, Tracta, derived from *traction avant*, referring to the use of front-wheel drive in their low-slung two-seaters, powered by supercharged 1100cc SCAP engines. Front-wheel drive had been used by the Indianapolis 500-winning Millers in America and by Alvis on Grand Prix cars in 1925; its debut at Le Mans was prompted by the insistence of Fenaille's father, who had made a fortune from petroleum, that his financial backing for their project be used to create something original, with commercial possibilities.

Grégoire, Fenaille and their co-drivers, the aviator Etienne Boussod and Roger Bourcier, Fenaille's chauffeur, were staying in a château in Angers during the week of the race, with their mechanics quartered more modestly in Mulsanne. On the Saturday morning the four of them piled into Fenaille's Panhard and set off on the sixty-mile journey to the circuit, with Bourcier at the wheel. They were almost there when the driver missed a bend near Arnage and crashed into a ditch. Fenaille suffered severe head injuries, Bourcier a crushed knee and Boussod and Grégoire were bruised and shaken. All four were taken to Dr Delagénère's clinic. Ordered to stay there and rest for forty-eight hours, Grégoire instead dressed, left the clinic without attracting the nurses' attention and made his way to the track, where he found the mechanics puzzling over the absence of their drivers. Now needing a co-driver, and with time running short, he made an appeal over the public address system for anyone with the necessary qualifications. The call was answered by a mechanic named Lucien Lemesle, who offered his services and was told to get himself ready.

A second victory seemed to be in Bentley's pocket when Clement took the lead soon after the start and eased away from his pursuers. As he came round for the fifteenth time he had lapped the entire field, including his teammates, and had set a new lap record of 8min 46sec, an average of just over 73mph. So it continued until half past nine that evening, when dusk was falling as Davis

approached the Maison Blanche curves at high speed in the third-placed Bentley.

What he found there was the Th. Schneider of Pierre Tabourin stationary across the track, having hit a wooden hut and bounced back onto the road. Close by it were the No. 1 Bentley of Callingham, which had rolled into a ditch while trying to avoid Tabourin's car; a second Th. Schneider, which had hit its stranded sister car; and the No. 2 Bentley of Duller, who had slammed into his teammate, the former jockey leaping out of the cockpit at the moment of impact as though escaping from the saddle of a falling horse.

Davis, alerted before he reached the scene by the sight of loose stones thrown up by the cars as they slewed off the track, stamped on his brake pedal and managed to cut his speed, but not by enough to avoid hitting the No. 1 Bentley, breaking his own right front wheel, bending the axle, twisting the mudguard back and destroying a headlamp. Miraculously, the only casualty among the drivers was Tabourin, whose car had initiated the incident and who was taken to the clinic with a dislocated shoulder and two broken ribs.

The race had been turned on its head, to the immediate benefit of the lone Ariès of Chassagne and Laly. But although two Bentleys were eliminated on the spot, Davis managed to restart the No. 3 car and limp back to the pits, where the officials, in a generous gesture, allowed him to fit a new wheel, since the accident had not been his fault. Having lost six laps while the bent bits were straightened out, Benjafield took over and set off into the night in a car with only one headlamp and held together by cords and leather straps, facing the apparently hopeless task of catching the new leader.

Heavy rain began just before midnight but had cleared by dawn. At eleven o'clock in the morning the Ariès held a four-lap lead. But the Bentley was pressing on, and three hours later the advantage was down to half a lap. Chassagne speeded up, stretching his lead to seven minutes, but the strain told on the French car and with just over an hour to go its engine failed. Benjafield was suddenly in the lead for the first time in the race, twenty laps clear of his nearest pursuers, a pair of 1100cc Salmsons. In a gesture that recognised his co-driver's ordeal of the previous year, the owner of Old No. 7 came into the pits with two laps to go and gave Davis the final brief stint and the honour of taking the victory.

Only eight cars were running at the end. A race most notable for what *The Autocar* described as 'one of the most sensational accidents ever recorded in

connection with the history of motor racing' turned out well not just for the winners on overall distance but for the two little Salmsons, Georges Casse and André Rousseau winning the 1926-27 Biennial Cup while André de Victor and Jean Halsey collected the Prix Saint-Didier for the Index of Performance.

In a remarkable seventh overall came the Tracta. Grégoire, his head bandaged following the pre-race crash, did the lion's share of the driving, handing over to Lemesle, the emergency stand-in, only when he needed a brief break. Having achieved their target of ninety-four laps with a couple of hours to go, but aware that he needed to complete a final lap in order to qualify, Grégoire stopped on a remote part of the straight section between Les Hunaudières and the Mulsanne corner, parked between the trees and took a nap. When Charles Faroux sent out a course inspection vehicle to look for a car that appeared to have vanished with no explanation, the driver was discovered lying beneath the pines, and was woken up in time to finish the race.

A second overall victory for Bentley confirmed the young company's rise to prominence, the heroic nature of the win for Davis and Benjafield adding to the romance of their exploits on foreign soil. W. O. Bentley had long abandoned his initial reservations about Le Mans. 'I don't think many companies have built up during such a short period a comparable fund of legend and myth, story and anecdote,' he wrote. 'The company's activities, particularly in its racing, attracted the public's fancy and added a touch of colour, of vicarious glamour and excitement to drab lives.' Nothing would be more emblematic of that glamour and excitement than the illustrations in the motoring press of Old No. 7 emerging, bruised but triumphant, from the great pile-up at Maison Blanche.

In preparing for the sixth edition of their race, the ACO at last officially recognised its true essence by creating a Coupe à la Distance, awarded to the car covering the greatest number of kilometres – in other words, the overall winner. There would still be a Biennial Cup, for now, and an Index of Performance award, but first and foremost there would be a car whose manufacturers could declare it to be the undisputed winner of an event growing in international prestige. The organisers' decision would be rewarded with the most exciting head-to-head battle to date.

The entry for 1928 was up 50 per cent on the previous year's dismal showing. Of the thirty-three cars that started the race, ten came from Britain (Bentley joined by three newcomers: Alvis, Aston Martin and Lagonda), five from the United States (four Chryslers and a lone Stutz) and two from Italy, although the pair of Italas should have been joined by a single Alfa Romeo, rejected by the scrutineers on the grounds that it had been too heavily modified. New rules from the Paris-based Association Internationale des Automobile Clubs Reconnus (AIACR), the world governing body of motor sport, laid down minimum dry weights – without liquids, tyres and tools – for cars from the smallest (501–750cc, which had to weigh at least 330kg) to the largest (over 8000cc, 1,800kg). At Le Mans, passenger ballast would be added to those weights. Hoods would still be required, and had to be shown to work, but there would no longer be a requirement to erect them during the race. Cars failing to meet their target distances would be eliminated only at half-distance, rather than every six hours.

With its 4.9-litre straight-eight engine, the Stutz Blackhawk was the biggest car in the race and came to Le Mans with a background of success for the marque at Indianapolis – where its factory was located – and elsewhere. The two-seater Bearcat had been popular with wealthy young Americans before and after the Great War but the Blackhawk, produced after a change of management, was intended to showcase more advanced design ideas and to promote a combination of performance with reliability.

Its entry at Le Mans was made under the name of Charles Weymann, the pioneering manufacturer of fabric-covered ash-framed bodies. An American based in Paris, he had been encouraged to transfer his commercial success in Europe across the Atlantic by the recently installed president of Stutz, Frederick Moskovics. As their drivers for Le Mans, they engaged two Frenchmen formerly with Lorraine-Dietrich: Robert Bloch, the 1926 winner, and Édouard Brisson, who had finished third twice and second once. Brisson was summoned from his home in Buenos Aires, where he was a friend of Luis Ángel Firpo, the local Stutz concessionaire, who had achieved a different kind of fame five years earlier when he was knocked out by Jack Dempsey in a torrid battle for the world heavyweight title.

After a lone entry in 1925, Chrysler's French importer arrived with four 4.1-litre machines and a team of star drivers including Henri Stoffel, André Rossignol, the winner in 1925 and '26, and Louis Chiron, a Monégasque who

had made his name with Bugatti in Grand Prix racing. They had recruited a young Calabrian aristocrat, Count Goffredo 'Freddie' Zehender, at the start of a career that would see him race for the works Alfa Romeo, Maserati and Mercedes-Benz Grand Prix teams.

Bentley brought three 4.5-litre cars, one being the rebuilt chassis with which Clement and Callingham had led the race a year earlier. This was to be driven by Woolf Barnato with his Australian-born, Eton-educated friend and Grosvenor Square neighbour Bernard Rubin, whose personal fortune derived from his father's success as a pearl trader and who was in his first season as a driver. Clement and Benjafield were in a second car, while the third was to be shared with Jean Chassagne by its owner, Sir Henry Birkin, the latest recruit to the small group of wealthy men who would become known as the Bentley Boys. The son of a Nottingham lace manufacturer, 'Tim' Birkin had served during the war as a pilot with the Royal Flying Corps before contracting malaria in Palestine; his nickname, borrowed from Tiger Tim, a plucky cartoon animal from a popular weekly children's comic, had been bestowed by a sister during childhood.

Lagonda entered three two-litre cars, one to be co-driven by Baron d'Erlanger. The other two British newcomers were both in the 1500cc class. Aston Martin included the world speed record breaker George Eyston and Augusto Cesare 'Bert' Bertelli, the company's chief designer, among their drivers (it was said to have been at the behest of the Genoa-born Bertelli that Aston's works-entered cars were painted Italian racing red). Alvis arrived with two examples of their new front-wheel-drive model.

From behind an earth bank, a shallow ditch and a fence of white palings opposite the pits, spectators watched the drivers sprint across the track, leap into their cars and roar away – all except d'Erlanger, unable to start his Lagonda and forced to get out and embark on the chore of changing the plugs. From the start the principal focus of attention was the contest at the front between the three Bentleys and the black Stutz, with Birkin taking the initiative. Barnato's efforts to prevent Brisson from forcing his way past attracted the interest of the commissaires, who issued a formal warning.

When a rear tyre punctured on Birkin's car in the third hour, the wheel collapsed as the driver tried to complete the lap and the car slid into a ditch at Arnage. After spending time freeing the jammed hub, Birkin realised that it would take two jacks to lift the car enough to change the wheel and made his

way back to the pits on foot. Chassagne, his co-driver, set off back to the car with an extra jack hidden under his overalls. The incident cost them three hours and put them out of contention for victory, although they were able to make up enough ground to finish fifth the following afternoon.

Night fell over a scene described by a correspondent for *The Motor* as ‘like a visit to a country fair, but for the thunderous exhausts of powerful cars rushing by every two or three minutes’. The Stutz and the Barnato/Rubin Bentley fought each other throughout the night, Brisson at one point getting his own back on Barnato by driving on the verges and kicking up stones. But by Sunday lunchtime the Stutz had lost its top gear and the Bentley had taken a lead that survived handling problems caused by a flexing chassis and a last-minute scare when a radiator hose broke at the start of a very tense final lap. There was a lap between the two cars at the finish, with two Chryslers a distant third and fourth, prompting *The Motor* to observe that ‘a good-class American car can now be driven hard for long periods without suffering any ill effects’.

After resisting complaints about the noise, in 1929 the ACO finally gave in and the Pontlieue hairpin was cut off. Now the cars would hit the brakes several hundred yards earlier along rue de Laigné, taking a ninety-degree right-hander onto a specially laid short straight – to be known as rue du Circuit – before another right-hander returned them to the Route de Tours. The total length of the circuit was shortened by just over half a mile. If the residents were happier, photographers mourned the end of an opportunity to capture the cars as they rounded the apex of the distinctive bend at a speed low enough to provide the skilled user of a 4×5-inch Speed Graphic press camera with a crisp image.

At the other end of the circuit, where a right–left combination interrupted the road between the Mulsanne corner and Arnage, the slightly cambered left-hand turn was resurfaced with bricks and rechristened Indianapolis, since the famous American banked circuit had originally been brick-paved. There and elsewhere, the lower trunks of trees close to the edge of the track were painted white to help the drivers.

The race’s growing prestige had brought more interest from newspapers and magazines, in France and abroad. In the press box, journalists were

delighted to find six telephone boxes and a telegraph machine installed for their use. But uncertainties surrounding the international economic situation – the Wall Street Crash was only four months away – reduced the entry once again. Only twenty-five cars lined up for the start, and of those a mere ten were from French manufacturers, none of them larger than two litres and including all seven entries in the under 1000cc class. ‘It’s a disgrace,’ Faroux told a British journalist. ‘I am ashamed for my country.’

Clearly the battle at the front would be between Britain and America. A squad of five Bentleys consisted of four 4.5-litre models and a new Speed Six: a 6.6-litre, six-cylinder machine built at Barnato’s request, for him to drive. The larger engine had been improved by the engineer Harry Weslake in response to the growing use of superchargers by other manufacturers. The three Stutz Blackhawks, for example, now had supercharged 5.3-litre straight-eight engines, as well as a team of drivers strengthened by the presence of George Eyston and Louis Chiron. W. O. Bentley believed that supercharging put too much strain on an engine intended for endurance events, leading him to a disagreement with Tim Birkin, who went off to prepare his own team of supercharged 4.5-litre cars. Birkin persuaded Barnato to manufacture the number of cars that it would take to enable the ‘Blower Bentley’ to compete at Le Mans, but the first example was not ready in time for the 1929 race. Instead, Birkin was invited to share the Speed Six.

Barnato completed his opening lap in 7min 57sec at an average of 76mph, the fastest yet, albeit on a circuit now minus the slow hairpin. At the end of the second lap the five Bentleys led the field, clearly outpacing their American rivals. Although the car shared by Bernard Rubin and Earl Howe retired in the evening with a broken magneto, the remaining quartet commanded the top four places. Encouragement came from the grandstand opposite the Bentley pit, where, according to *The Motor*’s report, ‘a strong contingent of Britishers called out at intervals, not unmusically, *B-e-n-t-l-e-y!*’.

Just before four o’clock they gathered quietly on the Mulsanne straight to co-ordinate a triumphant formation finish, first the Barnato/Birkin car with the No. 1 on its big, bluff radiator grille, followed by those of Kidston/Dunfee, Benjafield/d’Erlanger and Clement/Chassagne – ‘unhurried, dignified, superb, disposed in line ahead like a squadron of battleships’, in *The Motor*’s words. ‘This slightly theatrical finale created an enormous impression.’ As well as the

new Coupe à la Distance, they had scooped up the 1928–29 Biennale Cup and the Index of Performance trophy: a clean sweep for the British teams.

There were only ten finishers, including a Stutz in fifth and Chryslers in sixth and seventh. One of the fifteen retirements was another American entry, the 5.3-litre DuPont, built in Wilmington, Delaware, by an offshoot of the giant chemicals manufacturer. The team's effort was subsidised by a New York lawyer, Charles Moran, as a gift for his 25-year-old son, who had just graduated from Columbia University. A spectator at the race a year earlier, now Charles Jr became the first driver from the United States to compete in the 24 Hours. He had intended to drive the whole distance himself, with the firm's New York distributor, Alfredo Miranda, held in reserve, but that brave ambition was foiled when the 180kg of compulsory ballast, carried in the rear footwell, became dislodged and bent the prop shaft, ending the car's race.

As soon as the Bentley team got back to London, four cars and eight drivers – with Sammy Davis in place of d'Erlanger – were lined up by the kerb outside the entrance to Mount Street Gardens in the heart of Mayfair for a victory photograph. The cars were the winning Speed Six and the second-placed 4 ½, joined by Old No. 7, the 1927 winner, and a saloon. The stylish insouciance of the drivers, their brutish cars and the elegant setting in London's most opulent quarter summed up the new, all-conquering cult of the Bentley Boys.

From Brooklands to Montlhéry, female racing drivers were an established presence at European circuits by the end of the 1920s. The Baroness Hélène van Zuylen, a member of the Rothschild family, had been the first woman to enter an international event, the Paris–Amsterdam–Paris race of 1898. Muriel Thompson, the daughter of a Scottish Member of Parliament, won her first race at Brooklands in 1908 (and would be decorated by Belgium, Britain and France for her courage as an ambulance driver in Flanders during the Great War). Baroness Maria Antonietta Avanzo began her career in 1920 with a class win in the Giro di Lazio and famously put out a fire in her Packard by driving it into the sea during a sand race on a Danish beach. Lili Álvarez of Spain, three times a Wimbledon women's singles finalist, won the Catalan automobile championship in 1924. Violette Cordery, a Londoner, set world average speed records over 5,000 miles and 10,000 miles at Monza and

Montlhéry in the late 1920s, driving an Invicta. But it was not until 1930 that women were admitted to the 24 Hours of Le Mans.

Marguerite Mareuse and Odette Siko were the pioneers. Mareuse, a wealthy 41-year-old with origins in Bordeaux, provided the 1.5-litre Bugatti for the two of them to share. Siko, born Odette Séguin in Paris in 1899, obtained her driving licence at seventeen. Four years later she married Robert Coville, an industrialist with whom she played high-level competitive tennis at the Sporting Club de Paris and elsewhere. Her pseudonym appears to have come from a merging of their two surnames.

The cartoonist of *The Autocar* noted the combination of women and motor racing in a page of drawings celebrating British participation at Le Mans. 'The distractions begin when you get to Paris' was the caption to a drawing of a driver turning his head to admire a young woman showing her legs in a tight-fitting dress. Another, nothing to do with women, showed English drivers clutching their arms after the vaccination, mandatory on entry to France, against a Europe-wide epidemic of psittacosis, also known as 'parrot fever'.

The fully vaccinated Bentley team returned to Le Mans in the hope of extending their golden era, but a large white car was the centre of attention when the entrants turned up for scrutineering in the Halle aux Toiles. With the world still reeling from the effects of the Wall Street Crash, the race needed something remarkable to offset the presence of only seventeen cars. Mercedes-Benz's supercharged 7-litre SSK, based on a design by Ferdinand Porsche, had won the Tourist Trophy in the hands of the brilliant young German driver Rudolf Caracciola towards the end of the previous season, outpacing Tim Birkin's Bentley in vile conditions, but the dire economic situation in Germany had forced the company to curtail its racing activities. Only the pleading of Alfred Neubauer, their team manager, persuaded the directors to provide the funds for a four-race programme, including Le Mans.

Lined up against Caracciola and his co-driver, Christian Werner, a Mercedes test driver, were five Bentleys: three Speed Sixes entered by the factory and two supercharged 4.5-litre cars subsidised, at Birkin's behest, by the Hon. Dorothy Paget, an Anglo-American heiress with a love of sport who would go on to own winners of the Derby and the Grand National. The engineer Amherst Villiers had designed a supercharger, located in front of the four-cylinder engine and sticking out of the bottom of the radiator grille between the front wheels in a visual statement of intent that made the 'Blower

Bentley' instantly recognisable. While Birkin planned to mount an immediate challenge to the Mercedes, the works team hoped that the lower-stressed Speed Sixes, with Barnato and Glen Kidston paired in the lead car, would profit from the battle between competitors trying to push one another to breaking point, a tactic that would become a regular feature of the 24 Hours.

Caracciola took an early lead but refused to respond when Birkin howled past, setting a new lap record of 6min 48sec in the process. The Mercedes, with a switchable supercharger, was playing a longer game and Birkin's effort took a toll when his overheated tyres began stripping their treads. The chase was taken up by Sammy Davis in a Speed Six, but after Jack Dunfee took over the car was soon helpless in a sandbank.

It was Barnato's turn to make a challenge, and Mercedes reacted. Finally, the German car's supercharger could be heard emitting its distinctive wail as Werner and Caracciola swapped the lead with Barnato and Kidston, their powerful headlamps cutting paths through the darkness of the tree-lined roads. But at around midnight, making a pit stop after completing eighty-five laps, the Mercedes could not be restarted. Its electrics had completely failed. Although a new battery would have solved the problem, the latest regulations permitted the use only of spare parts that were carried on board. Neubauer ordered the car to be left on the pit apron for the rest of the race, a reminder to spectators in the grandstands of what might have been.

Now the race belonged to Barnato, the first man to complete a hat-trick of wins at Le Mans, and Kidston, a wartime naval hero and noted big-game hunter and aviator. The wealthiest and in some ways most archetypal of the Bentley Boys, Kidston was 'the *beau idéal* of a sportsman' in W. O. Bentley's words, with a list of lovers including the Hollywood actress Pola Negri and the novelist Barbara Cartland. This would be his final victory before his death the following year, aged thirty-two, when his biplane crashed in a dust storm over the Drakensberg Mountains in South Africa.

Behind the winning car came the Speed Six of Clement and Dick Watney, a future managing director of Lagonda. A second Bentley sweep of the top four positions seemed likely until the two Blower 4 ½s retired around midday on Sunday. Their engines had succumbed to the stress, just as W. O. Bentley had warned. But the two Speed Sixes made a handsome sight as they finished together, albeit separated by half a dozen laps, while also securing the Biennial Cup for 1929-30.

Third and fourth places were impressively filled by the pair of works-supported 2.3-litre Talbot 90s. Designed by Georges Roesch, a French engineer who had settled in England in 1914, the cars were built in London and entered by a racing team based in Tolworth, Surrey, run by Arthur Fox and Bob Nicholl. In the first of them, the Hon. Brian Lewis, the 2nd Baron Essendon, the son of a shipping magnate, and his co-driver, Hugh Eaton, an Australian sportsman who had flown Sopwith Camels off ships' decks during the Great War, also took the Index of Performance award. Talbot's French concessionaires celebrated the achievement in the pages of *La Vie Automobile* with an advertisement proclaiming their car to be the choice of 'connoisseurs, of people of refinement and of the elegant woman'.

In fifth place came the first Alfa Romeo to appear at Le Mans: a supercharged six-cylinder 1750cc model owned by Francis Curzon, the 5th Earl Howe, a former naval officer and Member of Parliament for Battersea South before inheriting his father's title in 1929. The car was going well until it oiled its plugs for the first time early in the race; prudently, Howe was carrying a spare set in his overalls and was therefore allowed to fit them, and also to refit the dried-out first set when the same thing happened again. In seventh place came Mmes Mareuse and Siko, who completed 132 laps in their Bugatti, bettering their target distance by two laps at an average of 56mph after a trouble-free run that opened the way for women to take on the challenge of Le Mans.

Although Bentley's chairman had just become the first driver to win the race three times, this would be the company's last pre-war triumph at Le Mans. The financial crisis had made the factory's racing programme an unaffordable luxury and a takeover by Rolls-Royce was only two years away. But across eight years and five victories at Le Mans, the Bentley Boys had helped give Britain – a country where racing on the road was banned – a significant presence in international motor sport, laying a foundation on which others, inspired by their example, would build.

The Bentley Boys, Birkin wrote in his memoir two years later, had combined in themselves so many attractive aspects of the sport: 'its courage, its patriotism, its humour, and its adventurous, never bored, never insincere spirit. We were always seen together. We had the same manner of speech, the same jokes among ourselves.' All this, he admitted, 'might seem childish to those who cannot see how precious was that spirit of gaiety when we went

together to Le Mans or wherever it might be to pit the green Bentleys against the foreigners. But a few, who can imagine the common interests and diversity of character in our team, the friendships formed with other teams, the endless discussions and the dinner parties, will understand how changed the time seemed when all of it was past.'

W. O. Bentley relished their part in the aura that had been created around his drivers. 'The public liked to imagine them living in expensive Mayfair flats,' he wrote, 'with several mistresses and, of course, several very fast Bentleys, drinking champagne in night clubs, playing the horses and the Stock Exchange, and beating furiously around race tracks at the weekend. Of several of them this was not such an inaccurate picture.'

CHAPTER 5

Dancing Daughters (1931-35)

For Le Mans, the 1930s began in 1931. Into the gap left by the Bentleys came two manufacturers destined to leave their mark on the decade. The first was Bugatti, whose cars had made their previous appearances as modest private entries while the company's own effort was concentrated on success in Grand Prix racing. The second was Alfa Romeo, Bugatti's great rival in top-line single-seater racing, whose Le Mans debut had been with the lone private entry from Earl Howe in 1930.

Now the two teams arrived in force, bringing drivers who had starred in Grand Prix racing to handle their supercharged eight-cylinder machines: Louis Chiron, Achille Varzi and Albert Divo in the black-painted five-litre Bugatti Type 50s, Giuseppe Campari, Freddie Zehender, Attilio Marinoni and Nando Minoia in the 2.3-litre Alfa 8C 2300s. Francis Howe returned with a similar Alfa, this time partnered by Tim Birkin and enjoying the support of the factory personnel. The Italians – with a team manager and thirteen mechanics – installed themselves at the Hôtel Moderne, the former headquarters of the Bentley Boys, where the cars could be prepared in the old stable yard.

The principal adversaries to the Bugattis and Alfas among the twenty-six starters included Édouard Brisson's Stutz, a pair of Chryslers and a seven-litre Mercedes SSK entered under the name of Prince Valériani-Vladimir Idigüer-Tatarinoff, a Russian exile now in the motor trade in Paris, for Count Boris Ivanowski, a former member of the Tsar's Imperial Guard, to share with the

veteran Henri Stoffel. A supercharged 2.3-litre Bugatti Type 43 was in the hands of two young French bankers, Antoine Schumann and Pierre Louis-Dreyfus, brothers-in-law who preferred to disguise their identity from their families by racing under the whimsical pseudonyms 'Ano' and 'Nimme'.

From Britain, Aston Martin arrived with three 1.5-litre International models, although one of their drivers had to be replaced at the last minute. More than twenty competitors and officials at Le Mans sent a telegram of best wishes to a hospital in Surrey where Sammy Davis, the 1927 winner, was recovering from injuries suffered when his Invicta hit a telegraph pole during an Easter Monday race at Brooklands. One of two MG Midgets was shared by the first British woman to take part: the Hon. Joan Chetwynd, a distant cousin of Tim Birkin and a frequent competitor at Brooklands.

The Alfa Romeos had difficulties even getting to the circuit, a landslide in the Alps thwarting their original plan for the three cars to be driven from Milan to Le Mans. Switching to rail, they arrived to face an unexpected dilemma over which of the permitted types of fuel to use, now fed to the teams via a gravity system from a dozen elevated tanks with flexible pipes ranged along the pits. Running out of time to adapt their engines to use pure benzole rather than a petrol-benzole mixture, they scratched one car, leaving Campari and Minoia free to help out in the pits.

Race day was hot. Noting that 'straw hats, colonial helmets, short sleeves and flimsy dresses were the sartorial equipment', *The Autocar's* reporter also observed mechanics cooling tyres with water or using blankets to keep the sun off them before the start. After a formal lunch at which the ACO celebrated its twenty-fifth anniversary, attended by Ferenc Szisz, the winner of the 1906 Grand Prix, Woolf Barnato was invited to drive a lap to close the course before Georges Durand waved the flag to send the competitors on their way.

When Stoffel was slow to get the Mercedes going from the front of the line, the two Chryslers roared past. For the first time, Le Mans was being led by Raymond Sommer, a 24-year-old from the French Ardennes on his way to greatness. On this occasion, however, his lead lasted only until the field hit top speed near the Café de l'Hippodrome for the first time, where the American cars were swamped by Chiron's Bugatti, Stoffel's Mercedes, Birkin's Alfa and others.

The works Bugattis were observing orders from their team manager, Jean Bugatti, the founder's 22-year-old son, to limit their revs to 4,000 in top gear

on the long straight, meaning a speed of just over 120mph. Bugatti had been nervous of the durability of Michelin's new lightweight tyres, and when Chiron's car threw a tread the order went out to slow down even more. But at just after half past six, two and a half hours into the race, the complexion of the contest darkened. Maurice Rost, in another of Bugatti's cars, was nearing what would become known as the Mulsanne kink at around 115mph, about to overtake a group of slower cars, when his left rear tyre threw a tread, just as Chiron's had. As the strip of rubber wrapped itself around the axle, the wheel locked. Veering to the left, the car tore down 50 metres of picket fencing before somersaulting several times. Two tons of Bugatti bounced over an earth bank and into the woods, finally coming to rest between pine trees. Rost was thrown out of the disintegrating car and landed with a scalp wound, four broken ribs and a broken shoulder.

At Dr Delagénère's clinic, he was treated alongside a farmer called Lafang from Parigné-l'Évêque who had been hit by the Bugatti and also suffered a minor head injury and a broken shoulder. Under the pines beside the Route de Tours, however, lay the remains of Le Mans' first spectator fatality. Like Lafang, Jules Bourgoïn, a commercial traveller from nearby Sillé-le-Guillaume, had been sitting on the bank in an area prohibited to spectators. He was cut in two by the flying wreckage.

Jean Bugatti had tried to be prudent. Now he consulted Chiron and Varzi before telephoning his father, Ettore, from the pits. At home in Molsheim, Bugatti *père* agreed that both remaining cars should be withdrawn. As Chiron drove his apparently healthy car away to park it behind the pits, the enthusiasts in the grandstand, not understanding the motive behind the decision, voiced their displeasure at the departure of the team defending the honour of France.

Although the withdrawal of the Bugattis put the Mercedes up to second place behind the Alfa Romeo of Marinoni and Zehender, the German car was also having trouble with its tyres, the drivers slowing as a precaution and stopping every hour for a new set of Belgian-made Engleberts. As the car dropped further and further back, Count Ivanowski approached the representatives of Dunlop for help, acquiring a supply of tyres with which to complete the race at a speed closer to the car's potential: the first recorded occasion on which a car had used two different makes of tyre within the twenty-four hours.

With nightfall, spectators could take advantage of entertainment growing ever more lavish and diverting. Additions to the sideshows around the public enclosures included motorcyclists riding a wall of death: '*le mur Americain*', as it was billed. But as journalists in the press box tried to ignore the constant biting of mosquitos and midges, out on the circuit Birkin and Howe were on the attack in a battle between the Alfa Romeos, the English entry taking the lead from the cars of Marinoni and Zehender before a fierce summer thunderstorm struck the track. Zehender was on his first lap after a stop to change into waterproof gear when he lost control and crashed at Indianapolis. Returning to the pits, he and a mechanic spent several hours repairing the front suspension, only for the rear axle to break once he was under way again.

Howe had driven steadily through the storm and by early morning he and Birkin enjoyed a big lead over their pursuers. The challenge of the works Alfas had melted away and the interest for the spectators now focused on the fourth-placed Mercedes chasing the two Talbots entered by the Surrey garage of Fox & Nicholl. Having got past the Welsh pair of Tim Rose-Richards, a stockbroker, and Owen Saunders-Davies, a member of the landed gentry, Ivanowski and Stoffel inherited second place when the car of Brian Lewis and Johnny Hindmarsh, an RAF pilot, was halted by a broken chassis.

Birkin crossed the line to an ovation, seven laps ahead of the Mercedes and eleven ahead of the Welsh-driven Talbot. He and Howe had led for more than half the race – the first car to cover more than 3,000 kilometres during the 24 Hours of Le Mans, averaging 78mph. Only seven cars were running at the finish, and the red-painted Alfa also carried off the eighth Rudge-Whitworth Biennial Cup and the Index of Performance. The Italian national anthem, '*Giovinezza*', was played, with its final lines of 'Youth, youth, spring of beauty / In fascism is the salvation of our liberty'. The drivers would return home to receive a telegram of congratulations from Benito Mussolini.

After the race, as Howe and Birkin drove back through Le Mans towards their hotel, they paused in the square beside the church of Notre-Dame de la Couture. Stepping out of the winning car, they took the three large bouquets they had received and placed them at the foot of the city's monument to its Great War dead. Both men had given their own wartime service, and the gesture was much admired. 'After a moment of reverent contemplation,' *La Sarthe* reported, 'the winners of the race got back in their car and returned to their garage.'

‘Le Mans! What wonderful memories those two words conjure up in the minds of motor-racing enthusiasts!’ The race had got under the skin of *Motor Sport*’s correspondent. ‘Burning sun, cool pine trees and the sweet scent of heather, swarming crowds of excited people, flimsy clothes and large straw hats, nightfall, the long beams of headlights swinging into the straight past the tribunes, dawn and a revival of excitement...’

But in 1932, no longer would drivers start a lap by heading up rue de Laigné before plunging down the dead-straight road towards Pontlieue. Recognising the need to remove their race completely from an area that was becoming increasingly built up, while also taking the chance to reduce the public’s scope for watching without the need to buy a ticket, the ACO had created a new piece of track, cutting off the whole northern section of the original circuit. After passing the pits and grandstands, the cars would swing right under a footbridge and follow a long, sweeping and slightly banked right-hand bend up to the brow of a hill and down again on a straight section between esplanades where spectators could pay 50 francs apiece to stand and watch the cars, protected by fences of stakes and chestnut branches in front of bales of compressed briar and a mound of earth and sand, one metre high.

This was the first piece of the circuit that was not a public road. The ACO had bought the land, and it belonged to them. Showing what would become a characteristic gift for linking their history with commercial interests, the new esplanades were named after winning manufacturers: Chenard et Walcker and Bentley to the right, Alfa Romeo and Lorraine to the left. The cars raced past them to a fast left-right that would become known as the Esses before rejoining the circuit at Tertre Rouge, now a ninety-degree right-hander with a sandbank and a row of plane trees lining the outside of the exit. This was now the start of the *Ligne droite des Hunaudières* – or, as the British would come to know it, the Mulsanne straight, three and a half miles long, with a right-hand kink and a pronounced hump before the braking zone for the Mulsanne corner. The circuit now measured 8.3 miles, almost two miles shorter than the previous layout. New parking areas took 10,000 cars, charged 30 francs each.

And nine years after Émile Coquille of Rudge-Whitworth had conferred with Charles Faroux and Georges Durand at the Paris Salon, the Biennial Cup had lost its sponsor. It had been declining in prestige, eclipsed by the Coupe à la Distance, although it was still something that the winning manufacturer

could use in advertisements. But now the name of the company that made fast wheel changes possible would be associated with the race only in the history books.

Alfa Romeo were back in force, a threat of imminent bankruptcy recently averted by recourse to the fascist government's Istituto di Liquidazione, created to take over and support struggling companies. Two works eight-cylinder cars were entered, one for Nando Minoia and Carlo Canavesi, the other for Franco Cortese and Gianbattista Guidotti. Earl Howe and Tim Birkin arrived with the former's new Alfa, painted in Howe's personal shade of blue. Attilio Marinoni and Angelo Guatta were to drive a works-supported car owned by Prince Dmitri Djordjadze, a member of the Georgian aristocracy in exile. Still disguised as 'Ano' and 'Nimme', Louis-Dreyfus and Schumann were in the former's new Alfa.

The sixth car from the Milan factory was a little different. Unlike the other five, its *torpédo* body came not from Carrozzeria Touring of Milan but from Joseph Figoni, a native of Emilia Romagna now making bespoke bodywork at his own workshop in Paris. There he had befriended Luigi Chinetti, another Italian émigré, responsible for sales and maintenance at the headquarters of Alfa Romeo's French arm in Levallois-Perret. Chinetti, born in 1901, had worked as a teenaged mechanic in Alfa's racing department. In 1925, soon after Mussolini began the dismantling of Italy's democratic institutions, he accompanied the team to the French Grand Prix at Montlhéry and stayed behind when his colleagues returned home.

Now he was to share the Figoni-bodied Alfa with Raymond Sommer, who had displayed his potential in an outclassed Chrysler the previous year. Sommer bought the short-chassis 8C 2300 after it had been shown at the Paris Salon in October 1931 with a two-seater body by Zagato, a Milanese coachbuilder often used by Alfa. To make the car conform to the regulations for Le Mans, it was stripped back to the chassis, engine and running gear before being rebodied in Paris as an open four-seater with an extended radiator cowl, strikingly faired front wings and a lengthened tail to cover an enlarged petrol tank, all of these intended by Figoni to improve its aerodynamic qualities. It was also now 100kg lighter than the works cars. Sommer bought the Alfa using funds from his father's carpet business; an extra 8,000 francs went to Figoni for the conversion.

After shooing several drivers back into position when they tried to anticipate the fall of the yellow flag, Faroux was able to start the race and unleash what began, in the words of *The Autocar*'s W. F. Bradley, as 'war without mercy'. Cortese, Minoia, Birkin and Marinoni screamed past the pits at the end of the first lap, by which time Jean Trévoux had already rolled a Bentley at Maison Blanche, breaking his wrist.

Marinoni swept into the lead, setting a new lap record before running off the track at Arnage on the sixth lap and spending more than an hour digging himself out. With that, a chapter of Alfa Romeo disasters began. Louis-Dreyfus lost control at Indianapolis and hit the bank, damaging the car too badly to continue. Almost simultaneously, Minoia, in second place, was trying to lap Brisson's Stutz going through Maison Blanche when he lost control and both cars ended up in the bank, close to where marshals were still trying to get Trévoux's car out of the way. Marinoni, having struggled back into the race, went off at the same spot, hitting the stationary Bentley. Three of the front-line Alfas were now out with the race barely three hours old, along with the Bentley, while the Stutz was hauled back onto the road by spectators pulling on a rope. More trouble befell other Alfas during the night, Cortese and Guidotti needing repairs to a broken windscreen while Howe and Birkin retired at three o'clock with a blown head gasket.

Sommer, inheriting the lead, was well into a marathon that would see him drive twenty of the twenty-four hours on the way to victory. The stress involved in preparing for the race had made Chinetti ill, and a four-hour stint on the Saturday evening was all that he was able to contribute. Sommer felt his own kind of strain as night turned into day, knowing that the entire responsibility was now on his shoulders. 'It seemed to me that I was driving along an endless road through a desert,' he told the journalist Georges Fraichard. The surface of the new section of the circuit was breaking up in the summer heat; the vibration forced Sommer to make occasional stops to secure mudguard stays and lighting brackets, improvising with a variety of straps and ropes.

Chinetti's gaunt face and the black circles around his eyes told the story of his race as he sat in the car with Sommer after the finish, barely able to raise a smile. By contrast, his partner looked ready for another twenty hours if necessary, even though he had raced through the final hours with no exhaust pipe; it had fallen off, leaving a stub to belch flame and smoke. Having covered

1,835 miles at an average of 76.48mph, the winners finished two laps ahead of Cortese and Guidotti and thirty-eight laps ahead of the third-placed Talbot of Lewis and Rose-Richards. Sommer and Chinetti also won the Index of Performance, while the Aston Martin of Bert Bertelli and Pat Driscoll took the 1931-32 Biennial Cup.¹

Apart from the winners, the happiest of the nine finishers may have been Odette Siko. Making her third appearance in the race, this time she shared her own supercharged, six-cylinder 1750cc Alfa with Louis Charavel, a former Bugatti works driver from the Gironde, whose racing alias, 'Sabipa', was derived from his habitual answer to journalists' questions, given in his local dialect: '*Sabe pas*' or 'I don't know'. Winning the two-litre class, they finished fourth overall after an untroubled drive. This would remain, ninety years later, the highest finish by a female driver in the race's history.

Tazio Nuvolari was forty years old and in his prime when he raced at Le Mans for the first and only time. His priority in 1933 was Grand Prix racing, but in sports cars he had won the Mille Miglia and the Targa Florio twice. At Le Mans he shared Sommer's new short-chassis 8C 2300, its Zagato bodywork again swapped for a four-seater Figoni creation, using some of the parts saved from the 1932 car. There was no official works Alfa team: the company had effectively been put under state control and its new head, appointed by Mussolini, had cancelled the competition programme. But the pairing of a driver of unparalleled charisma with the previous year's very popular winner gave the organisers a great attraction with which to lure those willing to pay 1,200 francs for a six-person box opposite the pits.

In the months before the race, the troublesome surface of the new section of track between the pits and Tertre Rouge had been successfully treated. As Georges Durand emphasised in his editorial in *Revue des Usagers de la Route*, the 24 Hours of Le Mans was not just about mechanical development: it was also an expression of the desire to make consistent progress in improving the quality of France's roads, and in the early years the surface of the circuit was used as a test bed for new methods and materials.

After the many accidents of the previous year, a yellow line was painted down the middle of the road to remind drivers of slower cars that they were supposed to keep to the right when faster cars were about to overtake. Small

reflectors were fixed to some of the trees on the approach to several corners; this earned the displeasure of Sammy Davis, who felt they made the track more artificial. 'I think a circuit ought to be a circuit and not an imitation of Regent Street,' he wrote, 'for if we go on like this we shall have flood lighting...'

A nine-hole golf course had been created on the infield past the end of the pits, near a new permanent chapel where mass would be held on Sunday morning. The race also had its first anthem: the catchily titled 'A.C.O.', a homage to the organisers with words by the journalist Lucien Cazalis set to music by Émile Baudrier, the conductor of the orchestra at the ABC cinema in Le Mans.

On the morning of the race, *La Sarthe* informed its readers that Tim Birkin – the 'glorious partner' of Barnato in 1929 and Howe in 1931 – would not be taking part. At the beginning of May he had burned his arm on an exposed exhaust pipe during a pit stop in the Tripoli Grand Prix. The wound soon turned septic and – perhaps combined with lingering effects from the malaria he had contracted in Palestine during the Great War – put him in hospital.

Apart from the Sommer/Nuvolari combination, works-supported Alfa 8Cs would be driven by Louis Chiron, partnered by Franco Cortese; by Luigi Chinetti with 'Philippe Varent' (the alias of Baron Philippe de Gunzbourg, a banker's son who had paid for their Figoni-bodied car); by the Algerian pairing of the brilliant young Guy Moll and Guy Cloitre; and by Brian Lewis and Tim Rose-Richards, whose car was looked after by Fox & Nicholl. A new 1750cc Alfa would be driven by Odette Siko and 'Sabipa'.

Again there were no works Bugattis. For the Alfas, the only real competition for the overall victory would come from an unexpected quarter: a vast supercharged 6.9-litre Duesenberg entered by the 29-year-old Prince Nicholas of Romania. The second son of King Ferdinand and Queen Marie, Nicholas had been banished to exile in Spain in 1930 when his elder brother, King Carol II, disapproving of his marriage to a divorcée, removed all his royal titles and privileges.

His previous racing experience was non-existent; he had entered cars in the 1932 Dieppe Grand Prix and the previous week's French Grand Prix but had not appeared at either. The wife in question, the former Ioana Dumitrescu-Doletti, was present in the paddock at Le Mans, filming her husband's competition debut with a hand-held 8mm camera.

Morning rainstorms had cleared away by the time the twenty-six cars lined up, with the Duesenberg at their head. Sommer led from the start in a car made distinctive by its cream and red paintwork as the rest of the Alfas again fought hard among themselves; by the time he handed over to Nuvolari after a two-hour stint, they had a two-lap lead over the other four 8Cs and the Duesenberg. That might have been that, but events were to ensure that this would be a race with an unforgettable denouement.

The big blue Duesenberg was eliminated shortly after nightfall when Joseph Cattaneo, Prince Nicholas's co-driver, fell foul of the commissaires, having filled up with fuel after twenty-two laps rather than the stipulated twenty-four. While the garage owner from Paris continued to circulate, lying in a respectable sixth place behind five Alfas, an emotional Nicholas went to see the officials to argue that, since the previous stint between fill-ups had been twenty-eight laps, it was only fair to take the average of the two, which would be twenty-five laps. Unpersuaded, the stewards disqualified the car. When the news spread among the crowd, there was sympathetic applause; they had enjoyed the sound and sight of the giant American machine.

At the front all seemed serene until Nuvolari came in at the end of his second stint with a front wing hanging off. While Sommer and a mechanic were busy fixing it, the Chiron/Cortese car made up two laps and took the lead, closely followed by the machine of Chinetti and de Gunzbourg. Sommer settled down to a long drive through the night, now in third place. He had worried during the practice sessions that Nuvolari's naturally aggressive style would not be suited to the more measured approach necessary for an endurance event. 'He wanted to limit the Italian's hours at the wheel,' *Motor Sport* reported, 'with consequent friction.' Eventually they reached an agreement. Since Nuvolari had told Sommer that he was not keen on driving in the hours of darkness, it was agreed that they would alternate two-hour shifts until midnight, when the Frenchman would take a longer stint to see the car through until sunrise.

Nuvolari had taken over again and had begun the chase of the two leading Alfas by the time a sudden heavy shower of rain at seven o'clock in the morning momentarily blinded Odette Siko and sent her slewing off the track in the high-speed wooded section between Mulsanne corner and Indianapolis. Her car crashed into two pine trees before a final impact with a third brought it to rest, upside down and ablaze. The driver had been thrown out, landing on

a drowsing policeman; the wreckage of the Alfa burned for an hour as she was taken to hospital for treatment to a broken wrist and burns on a leg. She and 'Sabipa' had been lying fifth.^{[II](#)}

Meanwhile, Nuvolari was catching and passing the two Alfas ahead of him, posting the first 90mph lap at Le Mans and taking the lead in front of the grandstands at nine o'clock, as spectators were returning to their seats. When Sommer's next stint ended at noon, further work needed to be done to secure the loose wing. Nuvolari was soon back in with a leaking fuel tank, a broken radiator mount and a damaged exhaust box. The leak in the tank was sealed first with soap and then with chewing gum, not once but several times, eventually using extra supplies smuggled across – since the gum counted as 'spares', which had to be carried on the car – by the sympathetic Fox & Nicholl mechanics from the next pit.

They were now being attacked by Chinetti and de Gunzburg, and with eight minutes to go Chinetti snatched the lead as Nuvolari left the pits, an irresistible challenge to the Flying Mantuan. On the final lap, two miles from the chequered flag, Chinetti missed a gear at Arnage and went wide, allowing his pursuer to pass and cross the finish line a few hundred yards ahead. In the end, Nuvolari had produced the sort of drama the crowd came to see.

The hectic finish completed a hat-trick of wins for Alfa Romeo and a clean sweep of the first three places, the third of its kind in the short history of Le Mans, following Lorraine-Dietrich in 1926 and Bentley in 1929. Two British drivers, Kenneth Peacock and Bill van der Beke, finished a fine fourth in a Riley Nine Brooklands, taking the Index of Performance trophy. Fifth and seventh were the two surviving Aston Martins, sandwiching a bright green MG Midget which achieved the marque's first finish at Le Mans, the supercharged 750cc car covering 1,482 miles in the hands of John Ludovic Ford, whose family had estates in Scotland and Jamaica, and his friend Maurice Baumer. They had prepared for their exploit by taking turns at driving reconnaissance laps while enjoying dinner at the Café des Hunaudières.

A few days later flowers were being sent to the funeral of Sir Henry Birkin, with a note regretting the death from apparent sepsis in a London nursing home of 'this great sportsman who had put up such great performances at Le Mans, from the Automobile Club de l'Ouest in memory of great friendship'.

The editor of *The Autocar* remembered how ‘he always seemed so different from any other driver, so quiet, detached and self-effacing’. The double winner at Le Mans was buried in a churchyard in Blakeney, North Norfolk, with a simple tombstone bearing the legend: ‘A racing motorist of international fame’.

The popular success of the race, even in the lean years after the Wall Street Crash, enabled the ACO to develop the course and, for 1934, to build a new row of two-storey pits, the upper level giving sponsors and special guests a privileged vantage point. The result, according to *The Autocar*, set ‘a standard of magnificence unparalleled in motor racing’. Other sponsors – Castrol, Shell, Standard Oil, Dunlop, Englebert and Champion among them – already had their own pits in which they could entertain clients. *The Autocar* and *The Motor* rented pits of their own where they could pick up information while serving drinks and English-style cooked breakfasts to drivers and team members taking a break. On the new section of the track, between the pits and Tertre Rouge, loudspeakers had been placed every 100 metres to keep the huge crowds on the esplanades informed about the progress of the race.

Odette Siko’s accident had prompted the organisers to cut back the pine trees beside the road between Mulsanne and Indianapolis, leaving 20ft of verge clear on either side. Tents for officials were erected on the infield of the main corners. Advertising signs were beginning to proliferate around the circuit: Dunlop banners were tied to the fences at Arnage and two footbridges on the new section between the Esses and Tertre Rouge carried Dubonnet signs which would appear prominently in press photographs of the cars rushing down towards the right-hander. For businesses in the town of Le Mans, too, the race also meant a significant boost to their takings, particularly the hotels and restaurants. In the Place de la République, the Brasserie Grüber was now staying open through Saturday night into Sunday morning, serving food and drink to spectators who had returned from the track to rest before making their way back for the race’s closing stages.

It was another hot weekend, attracting a ‘gaily decked throng – women in summery frocks of unmistakable French taste, the men in short-sleeved pullovers and small, round berets’, according to *The Autocar*’s W. F. Bradley. A sign that the world was now recovering from its financial sicknesses came with

the sight of forty-four cars lined up for the start, led by a quartet of eight-cylinder Alfa Romeos.

The previous year's winners, Sommer and Chinetti, each had a new partner: Pierre Félix, a Parisian doctor, for the former, and the Grand Prix star Philippe Étancelin for the latter. Sommer's car, owned by Félix, was an 8C Monza chassis, designed for Grand Prix racing, now fitted with some of the Figoni four-seater body parts from the previous two years. The Chinetti-Étancelin machine was a short-chassis 8C 2300 with a four-seater body by Brianza of Milan, painted blue. Also blue was Earl Howe's Touring-bodied car, shared with Tim Rose-Richards. A supercharged five-litre Bugatti Type 50 looked their likeliest challenger, entered by the writer Roger Labric, co-driving with Pierre Veyron, Bugatti's test driver. Six other French makes were represented: Amilcar, BNC, Lorraine-Dietrich, Rally, Salmson and Tracta.

British works teams came from Aston Martin, Riley and Singer, with a shoal of private MG Magnettes and Midgets. A semi-British entry was the Derby team, with two front-drive cars powered by two-litre V8 engines, one of them to be driven by Gwenda Stewart, an ambulance driver during the Great War and subsequently well known for setting motorcycle speed and endurance records. The cars were built in Paris and entered by Douglas Hawkes, an engineer and businessman who had met the twice-married Mrs Stewart while she was setting records at Montlhéry. In 1937 he would become her third and last husband.

There were other women at Le Mans this year. Dorothy Champney, from a wealthy Yorkshire family, brought the Riley Imp with which she had just competed in the Scottish Rally. Her co-driver was the Ontario-born Mrs Kay Petre, a former art student in Paris, now married to an English lawyer.

Rose-Richards was away first in Howe's Alfa, but Sommer was firmly in control by the time they completed the opening lap. *The Autocar* noted that, although there was a great deal of picnicking and dancing to accordion music, most of the crowd were showing an interest in the race: 'Many apparently of peasant class had their stopwatches clicking.' For an hour and a half the winner of 1932 and 1933 seemed well placed for another success, until he stopped at Arnage, flames coming from the car. When the fire had been extinguished the Alfa was towed back to the pits, where it retired.

In the late-afternoon heat, marshals were sprinkling wood chips on the melting tar at the new Esses. At the first change of drivers, Chinetti replaced Étancelin and grabbed the lead from Howe, who had taken over from Rose-Richards. Howe counterattacked, but an hour and a half before midnight the lights on his car went out as he sped along the Mulsanne straight. A lengthy attempt to rectify the problem on the spot, with advice from a mechanic sent out from the pits, saw him return to the action, but at one o'clock in the morning the lights failed again and so, terminally, did the clutch.

Veyron's Bugatti had also retired, leaving Chinetti and Étancelin unchallenged at the front. In the middle of the night, however, they had begun to experience exactly the sort of split in the petrol tank that had afflicted Sommer and Nuvolari a year earlier. Once again every available mechanic was being sent out to the confectionery kiosks, chewing vigorously as they returned before surreptitiously handing masticated gum to those allowed to work on sealing the leak before the car could continue to victory.

The outstanding performance of the contest came from the British cars in second and third places overall, two supercharged six-cylinder 1.5-litre Riley MPHs. The car placed second, thirteen laps behind the winning Alfa, had a French crew: Jean Sébilleau and Georges Delaroche. One lap further back came Freddie Dixon and Cyril Paul. Then came an MG K3 Magnette, followed by two Rileys in fifth and sixth. An extraordinary showing by British manufacturers continued with two Singers in seventh and eighth, followed by Aston Martins in 10th and 11th, more Rileys in 12th and 13th, two more Singers in 15th, 18th and 23rd, a Lagonda 16th and an MG 17th, from twenty-three finishers.

Six Rileys had been entered, all of them driven to Le Mans from the firm's factory in Coventry, and all completed the race, four of them finishing 1-2-3-4 in the Index of Performance. Soon afterwards Dorothy Champney, who had finished thirteenth with Kay Petre, married Victor Riley, the founder of the marque. A Riley might even have won the 24 Hours outright: as Étancelin set off on the morning after the race to drive the winning Alfa to Rouen, his hometown, for further celebrations, the refilled petrol tank finally split completely, disgorging its entire contents outside the Hôtel de Paris.^{III}

Le Mans had a new anthem for 1935. 'Autour du Circuit' (Around the Circuit) was a Java, a new type of dance glimpsed in a Parisian dancehall scene during Jean Vigo's 1934 film *L'Atalante*: a fast waltz with small steps, the couple dancing close, often with the man placing his hands on his partner's buttocks. The cover of the sheet music to the new song – music by Émile Baudrier, words by 'Jem', price one franc – featured an illustration of a speeding Alfa Romeo against the silhouette of a couple dancing quite decorously, with other smaller figures engaged in picnicking and golfing. An idyllic scene, fit to rival those to be found at Henley, Wimbledon or Chantilly.

For many, Le Mans had become part of the summer season. When Georges Fraichard, the historian of the early races, listed some of the more colourful participants among the record number of fifty-eight starters in the race's thirteenth edition, he ended up with something that sounded very much like a guest list for one of Jay Gatsby's Long Island parties: 'The eccentric Raymond d'Estrez de Saugé, the Monégasque giant Jacques Gastaud, the elegant Michel Paris, Count Georges d'Arnoux, who was too bohemian a type to take the race seriously, the junk dealer Marcel Horvilleur...'

'Michel Paris' was the pseudonym of Henri Toulouse, an industrialist and sportsman, entered to co-drive his new Delahaye with Marcel Mongin. A Parisian garage owner, Mongin was the mentor and lover of the glamorous Bugatti driver Hélène Delangle, known as Hellé Nice, who in 1920 had stretched out naked on a hotel bed in Brighton while he took a photograph that became part of her legend. The 'bohemian' Georges d'Arnoux, driving a Bugatti with Count Pierre Merlin, worked in the film business, as an assistant director on some of Jean Renoir's films and, as an actor, in Renoir's *Boudu sauvé des eaux* and *Partie de campagne*.

Reflecting on the success of British teams a year earlier, and assessing the entry for the 1935 race, Georges Durand wrote in *Revue des Usagers de la Route*: 'We can't help noticing that the British entries are in the majority, because their government has banned road racing on mainland Britain. British constructors understand that racing encourages progress, but they aren't content to stand by with folded arms. At Le Mans they have found the challenge which seems to them the most appropriate to provide a demonstration to their customers.'

Six years after the race had accepted its first female competitor, the British were also providing the first married couple to compete in the same Le Mans,

albeit in different cars: Elsie Wisdom, nicknamed 'Bill', sharing a Riley, and her husband Tommy Wisdom, the motoring correspondent of the *Daily Herald*, co-driving a Singer. A team of six women sharing three 850cc MG Midgets, under the guidance of Captain George Eyston, were quickly nicknamed the Dancing Daughters, possibly after a popular silent film of 1926 that launched the career of Joan Crawford. The first of the cars, all with Union Jacks on their flanks, was to be driven by Joan Richmond, an Australian horsewoman who had competed successfully at Brooklands, and Mrs Gordon-Simpson, née Eva Brewer, who accessorised her racing outfit with a single string of pearls. In the second car were Doreen Evans, who had been racing at Brooklands since she was seventeen, and Barbara Skinner, who would marry the racing driver, broadcaster and journalist John Bolster, famous for his handlebar moustache and deerstalker hat. The third was in the hands of Margaret Allan, a Bedales-educated Scot who would join the code-breaking team at Bletchley Park during the Second World War, and Colleen Eaton, another Australian, whose husband, Hugh Eaton, had co-driven the third-placed Talbot with Brian Lewis in 1930.

Motor racing had provided an escape from an abusive marriage for Anne-Cécile Rose-Itier. Born in Lyon in 1890, she had made her debut at Le Mans in 1934; now she returned with a version of the 1000cc Fiat Balilla built in France by Simca, the Société Industrielle de Mécanique et de Carrosserie Automobile. One of the drivers of a second Simca-Fiat was Amédée Gordini, beginning what would be a long association with Le Mans.

A farmworker's son, he was born Amadeo Gordini in 1899 in Bazzano, near Bologna. At twelve he was apprenticed to a blacksmith, repairing horse-drawn carts and bicycles, before seeing wartime service with the Bersaglieri, the Italian army's crack marksmen, in the Dolomites and Libya. Demobbed in 1921, he learned about cars while working in a garage before moving to Paris in 1925. There he changed his first name, acquired French citizenship and set up a workshop in a former stable in the suburb of Suresnes, where, through a friendship with Henri-Théodore Pigozzi, Fiat's French representative, he began modifying the cars being manufactured by Simca for the local market.

By 1935 he had refined his development of the neat little two-seater sufficiently to win the sports car class in the Bol d'Or at Saint-Germain, driving alone for twenty-four hours and covering 1,178 miles at an average of 49mph. The publicity value of the victory was such that Pigozzi immediately

offered him 10,000–20,000 francs for each win, depending on the status of the race. A month later he and the little car were at Le Mans, accompanied by his co-driver, Carlo Nazzaro, his young son, Aldo, and a bag of tools.

At the sharp end of the field were four privately entered Alfa Romeos for Raymond Sommer and the ‘eccentric’ de Sauge; Earl Howe and Brian Lewis; Luigi Chinetti and Jacques Gastaud; and ‘Heldé’, as Pierre Louis-Dreyfus was now calling himself, in a reference to his initials L-D, with Henri Stoffel. Prince Nicholas returned with his seven-litre Duesenberg, and a five-litre Bugatti Type 50 was entered by the factory for Roger Labric and Pierre Veyron. Ettore Bugatti was in attendance for the race, arriving with a party of his senior staff, railway officials and journalists on board a two-coach high-speed train built at Molsheim and powered by four of the 12.5-litre engines used in the company’s flagship limousine, the Royale.

So long was the echelon of cars parked against the pits that three extra officials with flags were stationed at intervals down the line from Charles Faroux to ensure that all the drivers would get the signal at four o’clock. To deter them from jumping the start, white circles with their racing numbers had been painted on the track opposite their cars. There they would stand until the flag dropped. When Prince Nicholas took the lead on a track still wet from lunchtime rain, he was at the head of a field of fifty-eight cars, representing seventeen makes: eight British, five French, one Italian, one American, one Franco-British and one Franco-Italian. Brian Lewis soon overtook the Duesenberg, followed by Chinetti, Stoffel and Sommer, with Johnny Hindmarsh’s 4.5-litre Lagonda Rapier lying fifth and Veyron’s Bugatti sixth.

Sommer took over the lead, as expected, but it was to prove a disastrous night for the Alfas. De Sauge, Sommer’s co-driver, had been taken ill before the start; a replacement was found, but the ACO refused to sanction such a late substitution. Sommer started, hoping that de Sauge would recover, but when he was delayed for more than an hour with fuel-feed problems, having already driven for seven hours, he decided to give up. Chinetti’s car broke its rear suspension towards the end of the night after his less than competent co-driver – the ‘Monégasque giant’ of Fraichard’s description – had lost a significant amount of time, and a piston went on Howe’s car when he and Lewis were in a comfortable lead as dawn broke. Since the Duesenberg and

Veyron's Bugatti had also left the scene, the lead was inherited by the surviving eight-cylinder Alfa of 'Heldé' and Stoffel.

They were under immediate pressure from the Lagonda of Hindmarsh and his co-driver, Luis Fontes, who took the lead in mid-morning and then kept the Alfa at bay, although not without adventures, including repairs to damaged bodywork during the night. Fontes had to survive the last hour with the oil pressure gauge reading zero; someone had forgotten to top up the lubricant during the final call at the pits, and under the twenty-four-lap regulation another stop could not be made before the end of the race. A two-lap lead began to disappear as Fontes reduced his pace, but the car made it to four o'clock still half a lap ahead of the Alfa, and the following week's motoring magazines contained advertisements for the oil's manufacturer, Rimer and Sons of Newcastle upon Tyne, emphasising its special additive: Graphited Atomol Upper Cylinder Lubricant. Perhaps that did the trick.

The manufacturer of the winning car had gone into administration a few weeks before the race, leaving Fox & Nicholl, whose businesses included a Lagonda dealership, to enter and run it. On its return to England the car was very quickly sold by the receiver, and within months the whole company would be bought by a man who persuaded W. O. Bentley to leave Rolls-Royce, along with other employees, and help with the design of new models.

Of the twenty-eight cars that finished the race, twenty-two were British, from six manufacturers. An Aston Martin Ulster came third, driven by the experienced Charles Brackenbury, who ran a garage near Brooklands, and Charlie Martin, a 22-year-old Old Etonian whose father had made his money in Welsh steel. Seven laps behind the winner, they swept the 1934-35 Biennial Cup (which the British still referred to as the Rudge Cup), the Index of Performance and the 1500cc class. Curiously, the cars that finished first, second and third overall were all painted red, the all-British Lagonda and Aston Martin sandwiching the French-entered Alfa. National colours would be carried long into the future, but Le Mans had relaxed its rules.

The three green MG Midgets, with their female crews in matching white overalls, won cheers for finishing twenty-fourth, twenty-fifth and twenty-sixth, the first two cars having completed 153 laps, one more than the third car, suffering no problems beyond a single broken light bulb. In the issue of *Motor Sport* containing a report of the race, an ad for Esso petrol featured an illustration of a handsome young couple at the wheel of an open sports car

that closely resembled an MG. The woman was at the wheel, sharing a smile with her companion. Although they had been given the same voting rights as men in the UK in 1928, women had to give up jobs in the civil service, education and nursing when they married, bank loans and mortgages for married women still required a husband's permission and equal pay was a faint mirage. But they could drive – and even race – a sports car on equal terms with men.

If a team of Hollywood scriptwriters had been trying to invent two protagonists for a tragedy-laden film about motor racing in the years between the world wars, they could hardly have improved on the stories of the two men toasting success in the cockpit of the winning Lagonda in 1935. Johnny Hindmarsh, twenty-seven years old, had joined the RAF in 1930. A year later he married the racing driver and record breaker Violette Cordery, who gave birth to two daughters while Hindmarsh continued to mix flying with motor racing. In September 1938, while testing a Hawker Hurricane at Brooklands, he would be killed when the aeroplane nose-dived into the ground. The cause of the crash was never established.

Luis Fontes's life would be even shorter. Of Anglo-Brazilian origin, he had been a distinctive figure in the paddock, with his slicked-back, centre-parted hair, stylish clothes and strange little round glasses. His driving stood out not just on the track but, less amusingly and ultimately tragically, for him and others, in the law courts, where his last years were shaped.

He and his sister Ruth had been born out of wedlock, in 1912 and 1911 respectively, to a wealthy Brazilian businessman and an Englishwoman. Brought up in Devon, they were both mad on flying and had the means to indulge their obsession. At twenty-one, each inherited a fortune. Ruth was the first to gain a pilot's licence, closely followed by her brother; both took up the fashionable sport of air racing. Luis also bought a supercharged MG Midget with which he competed in the Tourist Trophy; in 1935, while still a week away from the end of a year's suspension of his road licence, imposed for careless driving, he won the Junior Car Club International Trophy at Brooklands in an Alfa Romeo. Accepting an invitation to partner Hindmarsh at Le Mans, he became, at twenty-two, the youngest winner to that date.

According to the journalist William Boddy, a regular at Brooklands and Donington Park, Fontes's calmness at the wheel during a race was not matched by his behaviour at the parties afterwards. 'There the South American side of his ancestry would take charge, transforming the serious student into the wildest man ever.' Four months after winning at Le Mans he was on his way back to his mansion in Caversham from watching the inaugural Donington Grand Prix when his Invicta ran head-on into a young motorcyclist. He had been racing a friend, he had been on the wrong side of the road and, as he admitted to the court, he had been drinking. His victim, Reg Mordike, suffered a massive loss of blood; the 19-year-old's leg was amputated that night but he died the next day. The judge at Warwick Assizes heard that Fontes, charged with manslaughter, had eighteen previous convictions for various offences, five of them for dangerous or careless driving, and sentenced him to three years in prison, also imposing a ten-year driving ban to begin on the day of his release.

In February 1938 he emerged from Maidstone Prison on parole. He returned to the air, being fined £5 in Paignton, Devon, within weeks for 'flying too low, trick flying and failing to keep a logbook'. In January 1939 he got married, put his plane up for sale and defied the driving ban by taking his new wife on honeymoon in a Lagonda. When war came, he was told that his poor eyesight excluded him from the RAF. Instead, he joined the Air Transport Auxiliary, ferrying new planes to their units. On 12 October 1940, by then a father, he took off from the Vickers factory in Hawarden in North Wales in a twin-engined Wellington bomber, flying solo to RAF Llandow, 150 miles to the south. He was approaching his destination when one of the engines cut out and the hydraulics packed up. Attempting to land without the undercarriage, he hit a telegraph pole, crashed and was killed. A life dedicated to speed on land and in the air ended with his interment in an Oxfordshire country churchyard.

I. Unsentimentally, the winning Alfa's Figoni coachwork would soon be removed and replaced by the original Zagato two-seater body for further racing, after which it was sold to a man in Monte Carlo who had it rebodied in Cannes as a rather flashy convertible, more suitable for cruising the Croisette than negotiating the Mulsanne kink at racing speed.

II. After Odette Siko had recovered from her injuries, she gave up racing for rallying and record-breaking. Three years later she divorced her husband, whose factory had gone bankrupt for a second

time. In 1948 she married her second husband, the son of a Russian diplomat. They moved to the Dordogne, where she died in 1984, aged eighty-five, still the highest-placed woman finisher at Le Mans.

III. In sixteenth place in 1934 was a Lagonda Special co-driven by Edward Southwell Russell, the 26th Baron de Clifford. Belgravia-born and Eton-educated, at nineteen he had caused a stir in society by marrying the daughter of a notorious West End club-owner. An early supporter of Oswald Mosley's British Union of Fascists, he made speeches in the House of Lords advocating driving tests and speed limits. A year after appearing at Le Mans he was charged with manslaughter following a head-on collision in Surrey. At the time, as a peer of the realm, he could be tried only in the Lords. With the lord chancellor presiding and the attorney general prosecuting, De Clifford explained that the other driver had been on the wrong side of the road. The last peer to be tried by the Lords before a change to the law in 1948, he was acquitted. He was said to have earned his living in later years as a door-to-door dog-food salesman.

CHAPTER 6

The Bugatti boys (1936–39)

During the spring of 1936, unrest over workers' pay and conditions led to a general strike that paralysed France. In Molsheim, the town in Alsace where Ettore Bugatti had been making cars since 1909, he and his son Jean were barred from entering their factory by striking workers whom they believed they had always treated fairly. Within weeks the newly elected Popular Front government of Léon Blum, including representatives of the Communist Party, brought an end to the industrial action by establishing the right to two weeks' annual paid holiday for all workers and a strengthening of the negotiating power of trades unions. The strike ended on 11 June but a wounded Bugatti, resolving never to enter his factory again, moved to Paris and consigned the management of the company to his son.

And it was too late to save that year's 24 Hours of Le Mans, originally scheduled for 13–14 June. To Georges Durand, the real issues were practical. Many teams – particularly those based in France – had been unable to go through the normal process of getting their cars ready. 'I know that we have many friends in our neighbouring countries who will be filled with astonishment and indignation by this setback for the 24 Hours and will draw the conclusion that things are going badly for France,' Durand wrote. 'It takes little more to compromise the reputation of a people in the opinion of foreigners and to alienate sympathy.'

But if the British could be said to have played a leading role in the growth and prosperity of the race since its creation in 1923, then they could also be partially blamed for the failure to rearrange the dates of the 1936 race.

Initially, the ACO had proposed two sets of alternative dates to the AIACR, the sport's world governing body: 20–21 June and 4–5 August. An entry of fifty-eight cars looked perhaps the strongest and most varied yet, but the plan was wrecked when the Royal Automobile Club in London pointed out that the dates clashed with two of its own fixtures, the County Down Trophy Race in Northern Ireland and the August bank holiday meeting at Brooklands. It was therefore unwilling to give its blessing, and the ACO's officials were forced to announce that the race would not take place. They could only grit their teeth, count the cost and prepare for next year.

After a year's pause, and a change of rules to allow all cars competing at Le Mans to have only two seats, it was estimated that around 100,000 spectators turned up to watch the 1937 race, lured by the prospect of an epic battle for the Coupe à la Distance. Fox & Nicholl had returned to defend their 1935 title, this time with Brackenbury replacing Fontes (still in prison) alongside Hindmarsh in a Lagonda, but a swarm of challengers at the top of the entry list included two new Bugattis, eight Delahayes and two four-litre Talbots. Potentially the greatest threat of all came from Italy, in the shape of the works-supported 2.9-litre Alfa Romeo 8C in which Raymond Sommer was hoping for a third victory. His co-pilot, Gianbattista Guidotti, was an Alfa Romeo engineer who had supervised the building of the car around the chassis and twin-supercharged engine of the company's Grand Prix machines, with all-enveloping open coachwork by Touring of Milan.

The Alfa was upstaged, however, by a pair of Bugattis for whose fully enclosed aerodynamic bodies, designed by Jean Bugatti and partly fabricated from an ultra-light magnesium alloy, the epithet 'Tank' seemed like an insult. Intended for the cancelled 1936 race, the first T57G had won that year's French Grand Prix at Montlhéry in the hands of Sommer and Wimille. Now the latter was joined by Robert Benoist, a former Grand Prix winner who had become Bugatti's competitions manager, while Labric and Veyron teamed up in the second car. Both machines were finished in two shades of blue, dark for the bonnet cloaking their unsupercharged straight-eight 3.3-litre engines and a lighter shade for the rest. Each car had an extra spotlight set into the right-hand side of the bodywork just ahead of the driver's door, trained on the kerb

ahead to help the drivers see the apex of the circuit's three important right-handed corners: Tertre Rouge, Mulsanne and Arnage.

The lead drivers were two of the best France would ever produce. Wimille, twenty-nine, was the son of a prominent motoring journalist. Family friends included fellow journalists such as Charles Faroux and W. F. Bradley of *The Autocar*, who observed that the young Jean-Pierre 'must have been the worst-behaved child in France'. His was a privileged upbringing: a house near Versailles, a summer retreat in Beaulieu-sur-Mer on the Côte d'Azur, early lessons behind the wheel of his father's cars. Drafted into the French army, he was posted to North Africa, where his skill at the wheel earned him a job as the regimental headquarters' chauffeur, enabling him to take out cars by himself and practise his skills on desert tracks.

He returned to France a calmer, more reserved and controlled person, as Bradley noted, and ready to begin racing. After starting off in cyclecars, he bought a supercharged 1.5-litre Bugatti Type 37 for 40,000 francs, to be paid in instalments, with which to compete in the 1930 French Grand Prix at Pau; after two laps he was leading the small-capacity class when the supercharger blew up. The repairs cost a crippling 27,000 francs. But Faroux had seen the potential, describing him in *L'Auto* as 'precise, dextrous and above all cold-blooded, which will stand him in good stead'.

Over the next six years he would begin winning races in bigger Bugattis, sometimes loaned by Marguerite Mareuse, who had become his patron. An exceptionally good-looking young man, with a boxer's nose that added to his appeal, in the early days he often raced in a black beret. René Dreyfus, another French ace of the era, recalled in his autobiography a conversation with Wimille when the two of them had ended up in adjacent hospital beds after suffering separate accidents during a race in 1932. Wimille had been talking about what the future might hold when his racing career was over. Perhaps, he said, he might go into politics. 'Politics?' Dreyfus responded. 'But you don't know anything about politics. And who would vote for you?' 'Women,' Wimille replied, thus proving either his ignorance or his far-sightedness, since in France women were denied the vote until 1945.

Benoist, his co-driver, had been a star of Grand Prix racing in the 1920s, at the wheel of the all-conquering 1.5-litre Delage. The son of a gamekeeper on Baron Henri de Rothschild's estate outside Paris, during the Great War he had served both on the ground and in the air. After Delage's withdrawal from

racing following a triumphant 1927 season in which his four victories had made them champions of Europe, he managed a garage in Paris before returning in the mid-1930s to help organise Bugatti's assault on Le Mans. This would be his final race.

There had been a scare at the Bugatti factory in March when it became apparent that time to prepare the two newly built cars was running short. Jean Bugatti asked the workers to put in paid overtime but was told that under the agreement made after the strike of 1936 with the CGT, France's General Confederation of Labour, it would not be possible. Immediately he drove from Molsheim to Paris to negotiate a special arrangement with the CGT's secretary-general, successfully pleading the prestige of the event and his company's good employment record. Two months later Benoist took the first of the new cars to Le Mans for tests on the circuit. Completion of the other car, however, was delayed. The rest of the team had already installed itself at their hotel in Le Grand-Lucé when Veyron set off from the factory at eight o'clock on the Tuesday morning, covering 450 miles to Le Mans in less than eight hours and arriving only just in time for scrutineering.

The mechanics had been practising their pit stops: fuel, oil and water could be filled up, all four wheels changed and a new driver installed in under two minutes. The car's large petrol tank, the aerodynamic efficiency of the body and the relative frugality of the unsupercharged engine, achieving about fifteen miles per gallon, meant that the T57G had a range of more than 300 miles and would need fewer pit stops – perhaps only six during the twenty-four hours, one or even two fewer than its rivals.

Seven Delahayes started the race, all of them the 135CS model with 3.6-litre straight-six engines, owing their existence to backing from Lucy O'Reilly, an Irish-American heiress married to Laury Schell, the son of an American diplomat. Both competed, mostly in Bugattis. In 1936 Lucy O'Reilly Schell persuaded Delahaye to make a competition model, promising to acquire a dozen orders from among her friends and contacts. When Delahaye ended their official racing programme at the end of 1936, she and her husband took over with their own team, Écurie Bleue. A strong driver line-up included Dreyfus, Henri Stoffel and Marcel Mongin.

The most striking sight among the smaller classes was the team of three 1.7-litre Adler Trumpf coupés from Frankfurt, their aerodynamic bodywork – curved glass screens, tapered tail, wheel discs and removable spats enclosing

the rear wheels – developed with the use of threads attached to a prototype and photographed at speed on an autobahn to provide evidence of airflow. Two of these *Rennlimousinen* (racing saloons) were entered by the factory and the other by Anne-Cécile Rose-Itier, who had embarked on a romance a month earlier with her aristocratic co-driver, Huschke von Hanstein, after the German helped dig her out of a snowdrift in the Atlas Mountains during the Rallye du Maroc.

A second German outfit in the race was BMW, with three open two-litre 328s: an official works car from Munich and two right-hand-drive models, entered as Frazer Nash-BMWs, from Britain. One of the British-entered cars was in the hands of Pat Fairfield, a rising star born in Liverpool but brought up in South Africa before going to Cambridge, where he played first-class cricket for the university.

Their competitors in the two-litre class included three Peugeot 302 Darl'Mat sports specials, named after Émile Darl'Mat, the company's Parisian concessionaire, who had the idea of inviting the gifted designer Georges Paulin – a dentist by profession – to create new bodywork for the basic 308 saloon, to be built by the coachbuilder Marcel Pourtet in Rueil-Malmaison, just outside Paris. Darl'Mat himself entered the cars, with works support and the participation of several of their test drivers.

Talbot was expected to send three new cars, supervised by Luigi Chinetti at the behest of the company's new owner, Anthony Lago. The son of a Bergamo theatre owner, Lago had become one of the fifty founder members of Italy's Fascist Party after meeting Benito Mussolini at Milan's Polytechnic university. He was soon renouncing his allegiance and leaving Italy for the US in 1919 after supporters of Mussolini tried to shoot him in a café. A trained engineer, he next moved to London, where he sold luxurious Isotta Fraschinis before relocating to Paris in 1933 and acquiring the troubled Talbot marque. Unrest among the company's employees subsided when he built a staff canteen, where he lunched alongside his workers, but he was already in the process of fending off a bankruptcy petition against the company when the preparations were being made for Le Mans. The new cars were not finished in time and two 1936 models were sent along, one for Luigi Chinetti and Louis Chiron, the other for Raphaël Béthenod de Montbressieux, racing as 'Raph', and Nicky Embiricos, a member of a Greek shipping family.

Spectators were serenaded with a new song, 'La Ronde des 24 Heures'. With music by Fernand Warms and Paul Brebant, sung by Jean Sorbier, it was available on a 78rpm disc at kiosks around the circuit and was heard over the public address before the competitors were flagged away by the honorary starter, the English racing driver and record breaker John Cobb. Sommer led a group of Delahayes and the two Bugattis past the pits but by the fifth lap Wimille had pushed his Bugatti through into the lead, with his teammate Veyron in second place, and it could be seen that Sommer was slowing before stopping at the pits to investigate a valve problem that proved terminal.

With forty-five minutes gone, René Kippeurt, a 32-year-old amateur driver from Sèvres who raced as 'Rekip', lost control of his old Bugatti on the exit from Maison Blanche, triggering the worst accident of the interwar years at Le Mans. Thrown out of the cockpit as the car bounced back from the earth bank before beginning a series of barrel-rolls, Kippeurt was killed instantly, his body lying in the middle of the track as other drivers, coming through the blind curves at high speed, swerved to avoid him. This was the first year of the AIACR's new code of flag-signalling, including a waved yellow for danger, but there was no time to warn those immediately behind. The first was Fritz Roth, who spun his BMW, which flew over a hedge and ejected its driver.

Pat Fairfield instinctively steered the other way, his BMW colliding with the wreck of the Bugatti before in turn being hit by the Delahaye of Jean Trémoulet, which sent Fairfield's car into a field. 'Raph', arriving in his Talbot with no time to slow down, decided that hitting the Delahaye was the safest option but spotted Trémoulet lying under it and steered into the trees instead. Raoul Forestier was next, his Riley Sprite bouncing off several of the wrecks before the Frenchman jumped out to warn the oncoming drivers. Kippeurt's body was removed and the other injured drivers were taken to hospital. Several of Roth's teeth had been knocked out, Trémoulet had lost an earlobe, 'Raph' felt pains in his chest and legs and Fairfield was soon undergoing surgery to severe intestinal injuries in Dr Delagénère's clinic.

The leaders had made their way between the wrecked cars, and Wimille and Benoist would never be headed, safely negotiating an evening thunderstorm that sent rivers of water flowing down the pit lane. They were shadowed by their teammates until dawn, when Veyron and Labric were halted by a split fuel tank. On the pit counter, with stopwatches, a roll of

paper and a pencil, sat Wimille's friend Pierre Leygonie, who spent twenty-four hours recording the time for every car in the race without taking a break.

Benoist survived a spin at Arnage and a subsequent objection that he had been pushed back on to the track by spectators. With four hours to go, he and Wimille settled into a comfortable lead over Mongin and Joseph Paul in one Écurie Bleue Delahaye and Dreyfus and Stoffel in another. That was how they would finish, the top three of the seventeen cars that completed the course in increasingly pleasant conditions. Covering 2,043 miles at an average of 85mph, Wimille and Benoist had broken the previous distance record with an hour to spare and provided French enthusiasts with a first home win since 1926. Wimille had also set a new lap record, averaging 96mph. At the victory dinner that night, Benoist would announce his retirement.

The two white works Adlers finished sixth and ninth. Mme Itier's blue-painted car was unable to join them, having been disqualified in the early evening. Huschke von Hanstein had driven the first stint and opted to take a second, only to realise after leaving the pits that he had forgotten to top up the oil. He came straight back in to rectify the omission but was told that, since replenishment was only permitted every twenty-four laps, the car would be disqualified. Mme Itier was not pleased by her boyfriend's expensive gaffe.

The last of the Singers succumbed to ignition failure with four hours to go while leading the race for the Biennial Cup, having been driven through much of the night by Marjorie Eccles – who, with her husband Roy, was a regular competitor at Brooklands and elsewhere – wearing a large fur coat against the cold. A humble Ford Ten entered by Joan Richmond and co-driven with her husband, Bill Bilney, made it through in fourteenth place; when its engine died and the car stopped between Maison Blanche and the pits, forcing Miss Richmond to get out and walk back, the Aston Martin driver Jock Horsfall chivalrously sprinted along to it, dried the electrics and returned it to the pits for the owner to resume her stint – all seemingly without being spotted by the commissaires.

At Le Mans, with its endless litany of minutely detailed regulations, seeing what you could get away with was always part of the game. After the filler cap of her MG Midget broke, the 20-year-old Dorothy Stanley-Turner persuaded the officials that it was acceptable to use an orange as a stopper, since she had been carrying it with her and could therefore legitimately use it as a 'spare'. She and her co-driver, the London socialite Enid Riddell, made it home in

sixteenth place. Afterwards Stanley-Turner revealed that she had driven with a broken rib, suffered in a fall a few days earlier. She had concealed it in case she was prohibited from competing.¹

Pat Fairfield died in Dr Delagénère's clinic on the Monday morning, aged twenty-nine, leaving a young widow and a five-year-old daughter. It was surely the pall of gloom cast over British racing by the loss of an exceptionally gifted driver that prompted a writer in *The Autocar* to ask: 'Has Le Mans lost its appeal to people such as myself who go over to France to see the 24 Hour Race and have a good time? Last year it had to be abandoned owing to labour troubles and the sequence was broken: this year's event was supported up to the limit of 60 entries, yet somehow there was something lacking. It was not the organisation, which, if anything, is too perfect. Gone are the days when the square was gay with bunting and where, outside the cafés, racing cars were parked with their tails to the kerb. A new spirit appears to prevail, and it is not quite the same to those of us who knew Le Mans in the old days.'

The French majority in the 100,000 crowd, having enjoyed a race that finished in bright sunshine with a victory for two French drivers in a French car for the first time in more than a decade, and with other French-built and French-driven cars in second, third and fourth places, might not necessarily have agreed.

A year later there seemed little shortage of the old spirit when the teams converged on Le Mans, where one car drew all eyes. The deep-red Alfa Romeo coupé that arrived at the Halle aux Toiles in June 1938, designed by Carlo Felice Bianchi Anderloni of Milan's Carrozzeria Touring, with its low, slim, aggressively profiled coachwork, swept-back radiator grille, faired-in lights and dramatically shaped tail, seemed the most beautiful machine yet to appear at the Circuit Permanent de la Sarthe. The combination of that handsome body with a detuned version of Alfa's supercharged 2.9-litre straight-eight Grand Prix engine made the car, to be shared by Raymond Sommer and Clemente Biondetti, the most formidable in the field as well as the most swooned over.

Preoccupied by rail, air and marine projects, Ettore Bugatti forbade his son from sending a team. Despite their absence, the French entry looked formidable, headed by Écurie Bleue, now run as a semi-works team, with two

new Delahayes. Talbot's factory team brought a new 4.5-litre car for Chinetti and Philippe Étancelin.

The reduced British representation among the forty-two starters included a newcomer, a Morgan 4/4. One of its drivers, Prudence Fawcett, was a Sheffield solicitor's daughter who had been impressed as a schoolgirl by an uncle's Bugatti. During a stay in Italy she entered a hill climb in an Alfa Romeo; on her return she became involved in importing Alfas in association with a friend, Lancelot Prideaux-Brune. The owner of the Winter Garden Garage off Tottenham Court Road in central London, he had funded Aston Martin's successful works team at Le Mans in 1932 but was now selling Morgans. Fawcett paid her first visit to the race with a party travelling on the Duke of Kent's aeroplane in 1937. Intrigued to see half a dozen women taking part, she persuaded Prideaux-Brune to approach Morgan, who saw the potential for good publicity and provided a mildly modified car to run in the 1100cc class a year later.

There were new grandstands, built after long negotiations between the ACO, the French government and the twelve separate owners of a 136-hectare parcel of land, from whom it was compulsorily purchased. There was also a new timing tower, separated from the grandstand in order, according to Henri Petit in *Revue des Usagers de la Route*, to prevent the *chronométrateurs* from being pestered. 'What is needed by timekeepers in any sporting event, be it automobiles, cycling or athletics, is tranquillity,' Petit wrote, 'to be completely separated not just from the public but from those officials who, even with the best of intentions, get in the way of their work. It's these interruptions that cause the majority of errors about which those who are the first to complain are also the cause.'

In the press tribune, the correspondents of foreign publications filled the seats alongside their many French colleagues. *La Sarthe* reported the ACO's comment that demand for accreditation had reached an unprecedented level and published a list of those allotted working spaces. They included representatives of daily papers – the Brussels *Gazette*, the London *Daily Herald* and the *Daily Sketch*, Germany's *BZ am Mittag* and *Berliner Nachtausgabe* and Brescia's *Il Popolo* – as well as news agencies: Reuters, the Associated Press, the Exchange Telegraph and the Racing News Service. Specialist publications included *The Autocar*, *The Motor* and *The Light Car* from the UK, Switzerland's

La Revue Automobile, Germany's *Motor und Sport* and *Motor Kritik*, and *Il Calcio Illustrato*, a weekly sports magazine published in Milan.

The journalists would be looking down on a widened track stretching back from the end of the pits straight all the way to Arnage, thanks to the ACO's purchase of a strip of land 8 metres wide along the section of narrow public road that included the Maison Blanche curves, the site of the previous year's double fatality. The entire track had been resurfaced again, an example of the continual efforts to improve the facilities, on and off the circuit, that enhanced the appeal of Le Mans to competitors and spectators alike.

After the newly retired Robert Benoist had performed the ceremonial closing of the circuit, the Écurie Bleue Delahayes took an immediate lead. René Dreyfus and Gianfranco Comotti were followed by the Talbots of René Carrière and Philippe Étancelin, with Sommer going flat out to make up ground after a slow start in the Alfa coupé. The strain of such a pace was enough to destroy Comotti's gearbox after seven laps, while Dreyfus, after conceding the lead to the charging Sommer, was out before the first pit stop with an overheating engine. Carrière and Étancelin both briefly held the lead when the Alfa made its first pit stop, but Biondetti was more than capable of disposing of them during his first stint. The 39-year-old Sardinian, who had driven an Alfa to the first of what would be his four Mille Miglia victories two months earlier, was in his element.

By midnight the Talbot challenge began to disintegrate. The Étancelin/Chinetti car succumbed to engine trouble, leaving the Alfa coupé with a one-lap lead over the car of Carrière and René le Bègue. When that, too, disappeared with gearbox problems before half-distance, the Alfa enjoyed a lead of thirteen laps, or more than 100 miles, over its nearest pursuer. After Sommer set a new lap record of 5min 13.8sec, the Alfa's drivers adopted a more prudent pace.

There were three hours to go and victory seemed in the bag when, with the Frenchman at the wheel, the right front tyre exploded on the Mulsanne straight, where the car was topping 130mph. The disintegrating carcass of the Dunlop flailed with such force that it ripped through the alloy wing and damaged the engine mountings. Sommer limped back to the pits, where repairs were attempted and the bodywork was straightened out. Biondetti took over but on his first lap the engine faltered and the car slowed to a halt

out on the circuit with a broken valve. The Italian spent an hour pushing it back to the pits, but its race was over.^{II}

Unlikely as it would have seemed at four o'clock the previous day, the victory fell to Jean Trémoulet and Eugène Chaboud, the son of a wealthy Lyon businessman, in the latter's pale blue Delahaye 135CS, the car Trémoulet had crashed heavily in the Maison Blanche pile-up of the previous year. The two friends were able to cruise home two laps ahead of the similar machine of Yves Giraud-Cabantous and Gaston Serrault, with the Figoni-bodied Talbot coupé of Jean Prenant and André Morel in third place.

'Britain eclipsed at Le Mans' was the headline on *Motor Sport's* report. A French-driven Singer won the 1100cc class; an HRG, Anne Itier's MG and the Morgan were the only other British cars to finish. Where Georges Durand had only recently been holding up Britain's supremacy as a reproach to the weak efforts of the home country, now the tables were thoroughly turned. The lack of a real British challenge suggested that the race was being treated as an agreeable diversion, to be contested by amateurs in the cars they drove to country house weekends. It seemed typical of the prevailing approach that Prudence Fawcett drove the Morgan back home to England, where she was soon promising her fiancé never to race again.

For many years, Georges Durand and his colleagues had managed to attract competitive fields without offering prize money. The trophies and the prestige were enough. The money to finance the entrants would come from car manufacturers who saw racing as a promotional activity, from sponsors – makers of petrol, oil, tyres and spark plugs – who paid bonuses for success, and from wealthy amateur enthusiasts. The ACO itself accrued considerable income from tickets, sponsorship and advertising, more than enough to subsidise its always extensive programme of improvements to the circuit and expansion of the facilities surrounding it. In 1939 they recruited sponsors for a prize fund that included 1,000 francs awarded by the newspaper *Le Matin* to the leading car at the end of each hour, 10,000 francs to each class winner, 10,000 francs to the winner of the Biennial Cup and 25,000 francs to the winner of the Index of Performance.

Good news, but not quite enough to dispel the shadows creeping across Europe. 'We are passing through a time of anguish and uncertainty,' Eugène

Latouche wrote in a preview of the race for the *Revue des Usagers de la Route*. 'The Automobile Club de l'Ouest offers you 24 hours of agreeable respite. I can only urge you to come and take advantage of it.'

There were no Italian teams or drivers, thanks to a ban on competing abroad that was Mussolini's response to sanctions imposed by the League of Nations after his forces had invaded Abyssinia. From Bavaria came a trio of BMW 328s, two open cars and a Touring-bodied coupé primarily intended for a 1,600-kilometre race from Berlin to Rome, the twin capitals of the Axis powers, scheduled for September 1939 before events intervened. They were entered under the banner of the NSKK, the National Socialist Motor Corps, which controlled German motor sport while training armoured-vehicle drivers for the Wehrmacht on the side.

Bugatti returned after a year's absence with a single car, an updated T57S Tank, entered in Jean-Pierre Wimille's name for the 1937 winner to share with Pierre Veyron. Ettore Bugatti's decision to permit a further visit to Le Mans may have had something to do with the fact that the car's 3.3-litre straight-eight engine, now supercharged, mirrored that of the company's latest road car. Its strongest opposition appeared likely to come from half a dozen Talbots, eight Delahayes, a single six-cylinder 2.5-litre Alfa Romeo coupé for Raymond Sommer and Prince Bira of Siam, and two new Lagondas designed by W. O. Bentley, one a factory entry for Charles Brackenbury and Arthur Dobson and the other owned by the 26-year-old Peter Mitchell-Thompson, the 2nd Baron Selsdon.

The correspondent of *Motor Sport* reported that the days leading up to the race passed peacefully and pleasantly: 'In Le Mans the hotels were full; the big shots staying at the Paris, the Lagondas being garaged in the yard of the Moderne as the Bentleys were ten years ago. Eating, drinking and gossiping were done at Grüber's and the Hippodrome. Lord Selsdon's red cap and bright blue trousers were the cause of merriment.'

But there were offstage dramas. Sommer had driven his Alfa through the night from Bologna to reach Le Mans, battling a snowstorm on the 2,000-metre Mont-Cenis Pass and arriving twenty-four hours late for scrutineering. For Wimille there was a different kind of alarm. He was circulating in practice – held between one and eight o'clock in the morning – when the Bugatti's engine seized. Since there was no spare, replacement pistons had to be put on a train from Molsheim to Paris, where they were picked up at the Gare de l'Est

by Robert Benoist, the team manager, making the emergency round trip from Le Mans in his own Bugatti. Using the services of a local garage, the team's mechanics worked all night to rebuild the engine, finishing in time for Veyron to give the car a 200-kilometre shakedown drive over the country roads of the Sarthe before arriving at the circuit by the reporting time of 11 a.m.

George Shrubsall, an Englishman living on the Côte d'Azur, had paid Luigi Chinetti for a drive in one of his Talbots. Apparently unaware that the first practice session at Le Mans began at one o'clock in the morning, he had dined well at his hotel before being summoned to take the wheel. His highly erratic driving was immediately noticed by the officials, who believed him to be drunk and red-flagged the session. Everyone duly stopped except Shrubsall, who was oblivious to the increasingly frantic signals and continued at speed for several more laps until he was apprehended after coming to a halt and, in the words of one observer, getting out 'in order to see if the corner he had just gone round was really there'. Told he would not be allowed to compete, Shrubsall returned to his life on the Riviera, where he raced speedboats after the war.

The race started with a battle between Dobson's Lagonda, Wimille in the Bugatti, Louis Gérard's Delage, Chinetti's Talbot, Sommer's Alfa and the Delahayes of Robert Mazaud and Joseph Paul. By the second hour Mazaud and Gérard, a Parisian slot-machine king, were duelling at the front and the Alfa and Lagonda had fallen back. The Alfa's race would be a catalogue of woes: a blown head gasket cost an hour in the pits and the brakes suffered from overheating, as did the drivers. The car was eventually retired, excusing Sommer and Bira further hours of extreme discomfort.

Daylight returned with Gérard and his co-driver, Georges Monneret, holding a three-lap lead over the Bugatti, which had lost time with a broken wheel but was making up ground. At around noon, Monneret brought the Delage in with a misfire, eventually diagnosed as a bent valve. The Bugatti made up another lap, and then one more. With three and a half hours to go, Sommer and Veyron were in the lead for the first time. They were able to ease off as the Delage, still running rough, settled for second place, three laps behind the Bugatti and a long way in front of Dobson and Brackenbury in one Lagonda and Lord Selsdon and his friend Lord Waleran in the other.

Fifth was the BMW coupé, in the hands of Hans Wenscher and Max zu Schaumburg-Lippe. Wenscher was a BMW engineer. His co-driver, born

Wilhelm Eugen Georg Konstantin Maximillian Pinz zu Schaumberg-Lippe, and known to his friends as 'Sause', had served with an Uhlan regiment in the Great War, joined the National Socialists when Hitler came to power in 1933 and served on the committee of Germany's Supreme National Sports Commission while looking after his Russian grandmother's collection of Fabergé eggs.

Of the nine categories in which a prize was awarded, French cars had won seven, only BMW and HRG preventing a clean sweep. And the Coupe à la Distance, the biggest of them all in terms of prestige, had again gone to a home team, bringing France level with Britain on six victories apiece, ahead of Italy with four. Despite their conservative pace in the early stages, Wimille and Veyron had set new records by covering 2,084 miles at an average of 86mph. A few minutes after four o'clock, the Marseillaise rang out over the loudspeakers for the third year in a row. In the words of *L'Auto's* headline the next morning, it had been a story of *'Prudence... sagesse... victoire!'*

The most insouciant of the finishers was the 21-year-old Robert Ramsay Campbell Walker, a member of the Johnnie Walker whisky family. Brought up on a Wiltshire estate, Rob Walker was seven when his mother took him to the 1924 Boulogne Grand Prix – a victory for the Chenard et Walcker of René Léonard, winner of the inaugural 24 Hours of Le Mans a year earlier – and eleven when she gave him his first car, a Bullnose Morris, to drive around the lanes of their estate. Educated at Sherborne and Cambridge, he had owned a number of fast cars by the time he paid £400 for a beautiful Delahaye Type 135 Course spotted in a Park Lane showroom. Six months later he and his university friend Ian Connell were competing in it at Le Mans.

Connell, the more experienced of the two, drove the first four-hour shift. When Walker took over, he was in a dark blue pinstripe suit, shirt and tie, and rope-soled shoes. During Connell's second shift, a leaking exhaust began heating the footwell, roasting his feet so badly that after coming in to hand over at four in the morning he was unable to take any further part. Walker, having changed into a more casual Prince of Wales check suit, drove the last twelve hours, stopping periodically to soak the rope-soled shoes in cold water. At his final stop, on his way to eighth place overall and third in his class, he was handed a glass of champagne from the last remaining bottle of the team's supply and drank it before roaring back to finish the race. Afterwards he

drove the car back to Paris for an all-night celebration with some of the other British competitors. And that, for a while, was the last of the good times.

On a Friday evening in the middle of August, Jean Bugatti drove the Le Mans-winning car out of the Bugatti factory at around ten o'clock in the evening and did not come back. His father had forbidden him to race, and he had broken his promise only once, with a clandestine trip to England to take part in a hill climb at Shelsley Walsh. Now, two months after Le Mans, he had entered Wimille in the Grand Prix of La Baule, a handicap race organised by the ACO on the beach of the resort in Brittany, but the preparation of the car had been finished late. Wanting to try it out, he asked Robert Benoist to post mechanics at the various crossroads along a strip of road regularly used for Bugatti tests: the ruler-straight D392 between Molsheim and Strasbourg, which had formed part of the French Grand Prix circuit in 1922.

Earlier in the year a cyclist named Alfred Rudloff had been killed in a collision at a crossroads outside Strasbourg, for which Jean had been given a suspended prison sentence of three months and ordered to pay compensation to the dead man's family. Now he was approaching the village of Duppigheim at maximum speed – perhaps around 150mph – on his third run and had crested a blind brow when another cyclist came out from a footpath. Joseph Metz, a 19-year-old telephone operator, had just finished work at nearby Entzheim airport. Bugatti swerved to avoid him and left the road. The terrified cyclist fell off his bike, landing with two broken wrists. The blue car smashed into several trees, its lightweight alloy bodywork and frame crumpling as it hurled its driver out of the cockpit. The son of Ettore Bugatti was pronounced dead on arrival at hospital in Strasbourg.

Scheduled for 3 September, the Grand Prix of La Baule did not take place. That was the day France and Britain declared war on Germany. Soon the Royal Air Force would be arriving at Le Mans, taking over the aerodrome behind the circuit's grandstands. The RAF turned the pits and other buildings into dormitories, stores and mess halls as they flew missions in support of the British Expeditionary Force's vain attempt to repel the German invasion of Belgium and France. As the evacuation from Dunkirk began at the end of May 1940, the RAF also pulled out. They had treated the facilities with respect. 'They broke nothing,' Georges Fraichard observed.

It was on 7 June, at one o'clock in the morning, that the first bombs were aimed from Luftwaffe planes at the large Gnome-et-Rhône aircraft engine factory near the village of Arnage. They missed their target. But the inhabitants of Le Mans were joining the general flight away from the invasion, flooding out of the city and heading south by road and rail.

[I.](#) The daughter of an RAF officer, Dorothy Stanley-Turner served with the Women's Auxiliary Air Force throughout the Second World War. Enid Riddell, her co-driver, would be convicted under the Official Secrets Act and serve three years in prison. A member of the pro-Nazi Nordic League before the war, she had been arrested following investigations into her association in London with Anna Wolkoff, an emigrée Russian dressmaker whose clients included Wallis Simpson, the Duchess of Windsor. Wolkoff, also a Nazi sympathiser, was jailed in 1940 as a spy. After the war Riddell moved to Spain, where she ran a nightclub and occasionally entered rallies. Wolkoff, released in 1947, soon joined her. They were out for a drive one day in 1973 near Málaga when their car crashed and Wolkoff, who had been at the wheel, was killed.

[II.](#) The Alfa Romeo 8C-2900B Le Mans Speciale was quickly sold by the factory to a Roman buyer, disappearing from view until the late 1960s, when it began a passage through several pairs of hands before coming to rest, resprayed scarlet, in an American collection. Recognising its significance, Alfa Romeo's museum offered a swap that resulted in the car returning to Milan in exchange for one of their priceless Alfettas – the Grand Prix cars that carried Giuseppe Farina and Juan Manuel Fangio to the first Formula 1 world championship titles. After a full restoration, including a return to its crimson paintwork, the unlucky 1938 coupé was again revealed to the world as an object of wonder.

CHAPTER 7

The atrocious silence (1940-48)

The first German to arrive was Theo Osterkamp, the commander of the Luftwaffe's 51st Fighter Wing, who landed his Messerschmitt Bf 109 on the airfield behind the grandstands in the late morning of 18 June 1940. There was, he reported, not a living soul at the aerodrome, just the remains of a hastily abandoned meal, some burned Potez utility planes and a wrecked RAF Hurricane. It was a year to the day since Wimille and Veyron had cut the engine of their Bugatti and heard the cheers and the national hymn blaring over the public address: *Allons, enfants de la Patrie, le jour de gloire est arrivé...*

Osterkamp soon had company. At half past noon, grey-uniformed troops marched into a city of 90,000 people where the electricity had been cut and from which life had been drained. Within a day the whole department of the Sarthe had been occupied and the business of coming to terms with the invaders and of living with the new circumstances had begun.

As the electricity came back on, Le Mans was suddenly the host to around 6,000 soldiers of the occupying force. The Brasserie Grüber and the Pathé cinema were reserved for Germans, clocks were set to Berlin time and no French-registered car was allowed to overtake a military vehicle. Statues commemorating notable *Sarthois* – including Léon Bollée – were taken down and shipped to Germany, their bronze required by the Third Reich's war machine. Food was rationed and a curfew was set for 8 p.m., later changed to 10 p.m.

Officers took over houses in the Cité des Pins, just outside the north-western corner of the circuit, where they built a swimming pool. There, beyond a screen of cypress trees, the invaders and their women swam and sunbathed in the nude. They were following the doctrine of *Freikörperkultur* – known to Anglo-Saxons as ‘naturism’ – popular in Germany since the nineteenth century and flourishing despite the disapproval of Hermann Göring, the head of the armed forces, who had warned against its corrosive effect on German ‘culture and morality’.

On Saturday 3 May 1941, Georges Durand died at his home in rue Chanzy, a short walk from the ACO’s offices. He was seventy-seven and had suffered a couple of years of poor health. Beneath a photograph of a balding, bespectacled man, who looked like the director of a bank and an insurance company that he had become, the report of his death on the front page of *La Sarthe* conveyed the qualities that had gone into creating the 24 Hours of Le Mans: ‘He was a man of initiatives and achievements. His dynamism was irresistible.’ It emphasised his insistence that racing should justify its existence through its use as a laboratory for the improvement of automobile technology and road-building methods. He had been appointed an officer of the *Légion d’honneur* and his funeral, at the great church of Notre-Dame de la Couture, was packed with dignitaries. He was buried in the cemetery of Sainte-Croix, near the tomb of Léon Bollée, another who had done so much to associate the name of Le Mans with the world of the automobile.

Blockhouses were built in Le Mans, searchlights and anti-aircraft batteries installed. German troops were constantly passing through on their way to the Atlantic coast and farmers were summarily expelled from their properties to enable expansion of a new airfield to the east of the city, from where fighters took off on missions in support of bomber squadrons. Planes requiring a longer runway sometimes used the circuit’s finishing straight, along which the old protective earth banks had been flattened.

An appeal was made for volunteers to work in Germany, in exchange for the return of prisoners of war. A poor response led to quotas being imposed, eventually by force; local mayors were ordered to identify candidates. Jews, already obliged to wear a yellow star, were put on trains heading east; of 362 taken away, sixty-nine survived. Some citizens clandestinely listened to the

news of the war's progress on the BBC. Guns and radios were being parachuted to resistance groups and the Gestapo chased down active *résistants* throughout the Sarthe, executing 120 and deporting a further 510, of whom 226 would never return.

RAF Mosquitos attacked the factories and railway yards in March 1943. It was noted that the raids were mostly timed to take place when the working day was over. The Renault factory, where 2,000 workers made parts for German tanks and trucks, was badly hit and nearby houses were damaged but only five workers and one other person were killed. The US Air Force began high-altitude daylight bombing missions, usually aiming at the Gnome-et-Rhône factory. American airmen parachuting from damaged planes were being hidden or helped to escape by local people. During one raid, however, on a Sunday in July, 105 B17s dropped more than a thousand 250kg bombs, only a handful of which hit the target. Several houses near Tertre Rouge were reduced to rubble, one of them containing seven people – including a mother, a father and their two children, aged respectively one year and one month – gathered for a baptism.

The distress and anger in France caused by the number of civilian casualties prompted assurances of greater accuracy permitted by new methods of locating targets, but it could not be guaranteed. On the night of 7 March 1944, 300 RAF planes set off from English airfields to obliterate the railway station and rail yards of Le Mans. They were told to expect clear skies, but when cloud cover delayed the pathfinders the bombers were forced to circle around the target and many dropped their bombs by guesswork before turning back for England. There was a certain amount of damage to the railway, but thirty-one civilians were killed, including seven children, and errant bombs from a single aircraft destroyed a school and a chapel in the quarter named after Léon Bollée. Houses and shops in the Cité des Pins and Arnage were also destroyed. Two days later the cathedral was packed as a cardinal officiated at the funeral for the victims.

Many figures with connections to the race became combatants. Georges Paulin, the Franco-Jewish dentist who designed the bodies for the Peugeot Darl'Mats in 1937, spied for the British; betrayed to the Gestapo, he was executed by firing squad at Fort Mont-Valérien in Suresnes in March 1942.

Jean Trémoulet, a winner in 1938, was shot dead during a Resistance mission in his native Dordogne in October 1944.

Others survived. Sommer, the winner in 1932 and 1933, shot down a Luftwaffe plane with his rifle in 1940 and escaped from a POW camp the following year. Baron Philippe de Gunzbourg – ‘Philippe Varent’, Chinetti’s co-driver in the second-placed Alfa Romeo in 1933 – served in the Special Operations Executive (SOE). Louis Rosier fought with the Resistance in the Auvergne; after the war he went to Germany to find his wife and daughter, who had been deported as a reprisal. Pierre Louis-Dreyfus, a graduate of the French cavalry school at Saumur, co-ordinated Resistance operations in southern France before fleeing to England and flying eighty-one missions as an air gunner with the Bomber Group ‘Lorraine’ in the final year of the war.

Robert Benoist escaped to England in 1940, joined SOE and engaged in clandestine operations, mostly involving sabotage. Caught in Paris in 1943, he escaped from a Gestapo vehicle and made his way back to England. He returned to France to join a network near Nantes but was arrested again in June 1944, interrogated and killed by strangulation in Buchenwald, one of more than 100 agents of SOE’s F Section never to be seen again.

Jean-Pierre Wimille married Christiane ‘Cric’ de la Fressange, twenty-one years old and an international ski racer, in December 1940. He was working for Ettore Bugatti and they lived between an apartment in Paris and his family’s villa in Beaulieu-sur-Mer. He ended his involvement with the rightist Parti Populaire Français when its leader, Jacques Doriot, explicitly associated himself with the Nazis. Recruited into SOE by Benoist, the Wimilles rented a small house in the countryside outside Paris where they could store ammunition dropped by parachute: a typical drop yielded 25 machine guns, 15 revolvers, 16 anti-tank weapons, 120 hand grenades, 33 land mines, 45,000 rounds of ammunition, three radio transmitters and 15 receivers.

When the Gestapo arrived one day in 1944, Cric was among those arrested while Jean-Pierre escaped through a window and hid in a stream until the Germans had gone. Cric was interrogated and imprisoned. Put on a train to Germany with fellow captives, she managed to escape by impersonating a Red Cross nurse and hiding in the Paris apartment of her husband’s friend Pierre Leygonie, who had kept Wimille’s lap chart at Le Mans in 1937.

After D-Day, Wimille joined the Free French Air Force. On 9 September 1945 he was given leave by his unit commander to take part in the first post-

war motor race, in the Bois de Boulogne. Around a quarter of a million spectators thronged the park to watch three races contested on a 1.75-mile circuit, each race given a name carrying significant emotional weight, the proceeds going to former prisoners and war victims.

The first event, the Coupe Robert Benoist, was won by Amédée Gordini at the wheel of the modified Simca Huit with which he had won the 1100cc class at the last post-war Le Mans and in which he had unsuccessfully tried to flee Paris following the invasion in 1940. After the race, he was embraced by Benoist's widow and daughter. The second race, the Coupe de la Libération, went to Henri Louveau in a Maserati. The third, the Coupe des Prisonniers, attracted the strongest field, Wimille in a 4.7-litre single-seater Bugatti coming through to win after an early tussle with the Talbot of Raymond Sommer. Ettore Bugatti witnessed the victory, having arrived in one of his vast Royale limousines.

After being demobbed, Wimille returned to work in Bugatti's Paris showroom on Avenue Montaigne, a favourite meeting place for racing people, and Cric gave birth to their son, François. In a post-war atmosphere of suspicion and recrimination, the combination of Jean-Pierre's political affiliations in the 1930s and Cric's improbable escape provoked rumours that they had collaborated or in some way betrayed their SOE colleagues, but inquiries proved the suspicions to be groundless. Wimille was also trying to get his own motor manufacturing business off the ground: with Leygonie's help he designed a futuristic rear-engined three-seater car, to be built in collaboration with Ford. Several prototypes were produced, but the project was ultimately condemned by its high costs.

Picking up the threads of his racing career, in 1946 Wimille was recruited by Gianbattista Guidotti, now the manager of Alfa Romeo's Grand Prix team. In three seasons he won five of the nine Grands Prix he started with the invincible 1.5-litre supercharged Alfetta, while twice obeying team orders to finish second. When Alfa Corse decided not to compete in 1949, he joined Gordini. In the early morning of 28 January that year, during practice for the Buenos Aires Grand Prix on the Palermo Park circuit, he left the track on a fast left-hander – some said the low morning sun had blinded him, or that he was trying to avoid a stray dog, or possibly children who had wandered onto the road – and hit a small tree. He died in an ambulance on the way to hospital from head and chest injuries.

Cric was in the pits when he crashed; back in Paris was Juliette Gréco, the 21-year-old singer he had met at the Tabou, the Left Bank bar where she had become the muse of the Existentialists. 'He was handsome, with green eyes, a fine face and long, strong hands,' she wrote in her memoir. 'He was twice my age and he was married, but that didn't bother me. I loved him, I was young, and I had my life ahead of me. I never told him about the fruit of our love, which I'd had in my womb for two months.' She miscarried. 'I lived with the sorrow, hidden deep inside me. For ever.'

The Automobile Club de l'Ouest had kept the memory of the race alive by organising an exhibition of photographs, models and charts shown in Le Mans during 1943 at the Garage Drouin, a Peugeot dealership, before being taken around neighbouring towns. At the opening, Gustave Singher, president of the club since taking over from his father Adolphe in 1910, expressed optimism for the future of the race, despite the prevailing circumstances. 'The day will come,' he said, 'when we can invite our fellow countrymen to the 17th Grand Prix d'Endurance.'

On the second Sunday of January 1944, with Le Mans still under German occupation, the journalist Roger Labric, who had competed in the race half a dozen times before the war, the ACO committee member Georges Berthier and Georges Hamel, the artist who had designed beautiful posters for the race and signed his work 'Géo Ham', went to take a look at the circuit. Sleet was coming down. Somehow Berthier had acquired not just an electric van in which they could make the journey but permits to visit various restricted zones. Driving up from Pontlieue on this bleak midwinter day, they came upon a scene of devastation. The houses of workers and the villas of retired people lay in ruins, with roofs open to the sky, windows smashed, walls destroyed, little gardens once beautifully kept but now violated. And there was no sound anywhere. Describing the visit several years later, Labric recalled 'the atrocious silence of dead cities'. A few yards away from the tunnel under the circuit lay an unexploded 500kg bomb, half buried.

At Mulsanne corner they saw the prisoner-of-war camp set up by the Germans, with its wire fences and watchtowers. In the village of Arnage they found streets with a few houses that were still habitable. The airfield was a mess, much of the damage done by bombs aimed at the Gnome-et-Rhône

factory. Beyond it lay the sight they found most upsetting: no grandstands, no tunnel, no pits, no scoreboard. Nothing. Even the trees on the little golf course. All gone.

On 6 June Allied troops landed on the Normandy beaches. In Le Mans, 120 miles south, planes were crashing in flames and bombs fell almost at random. Columns of starving Russian prisoners of war were given bread by local women while German tanks hurtled north along the roads to meet the Allied armies. Electricity was cut again, which meant the population could no longer listen to their radios for news.

At the end of July the Germans began their withdrawal, blowing up bridges as they went, including the one over the Huisne at Pontlieue, which all the Allies' bombardment had not managed to destroy. On 8 August the first Americans arrived, and by mid-afternoon the Jeeps and tanks of the 79th Division were being cheered by crowds thronging the pavements and the squares. In the Place de la République, a group of schoolchildren erected a small gallows from which they hung an effigy of Hitler.

The liberators found a city whose cathedral and medieval streets were largely undamaged and which in terms of casualties – 185 citizens killed and 238 wounded in the raids – had got off comparatively lightly. On 22 August, Le Mans welcomed General Charles de Gaulle, who gave a speech from the balcony of the Théâtre des Quinconces. It was his last stop before his triumphant arrival in Paris, where he warned the crowd in front of the Hôtel de Ville that Germans were still on French soil and the struggle was not over.

Sammy Davis, serving in his second world war and now a major with the Royal Electrical and Mechanical Engineers, was able to make a detour on his way east with the Allied liberation armies, hoping to see the circuit where he had won in 1927. In the city centre, he was relieved to see the hotels still intact and was given a warm welcome by some familiar faces. Heading out to the circuit, he was confronted by the reality. He got back in his army vehicle and headed east again, through a desolate landscape: 'Lanes were choked with overturned vehicles and guns on top of dead men and dead horses, with burned-out tanks for company. Great and grim had been the liquidation of an army.'

The conclusion of the war in Europe was still nine months away. As the skirmishes around Le Mans came to an end, the Americans set to work repairing the airfields for use by transport planes bringing supplies to be taken

up to the front. Landmines and unexploded ordnance caused problems, particularly in the heavily bombed area of the circuit where grandstands and pits had stood. Eighty years later they were still being discovered, dug up and defused.

As the city settled down to life in peacetime, the job of reconstructing the circuit would have to begin without Georges Durand. And without Gustave Singher, too, who died in 1947, aged eighty. The ACO's new president was Paul Jamin, one of the team behind the 1906 Grand Prix. Charles Faroux, the race director, and Georges Berthier, the nuts-and-bolts man of the organisation, were still involved, but they needed allies, and they found an important one in Christian Pineau, France's new minister of public works. After starting life as a lawyer and banker, Pineau had led a Resistance cell, helped found *Libération*, the underground newspaper, and ended the war in Buchenwald. A socialist, he was elected in 1946 to represent the Sarthe in the *Assemblée Nationale*, becoming De Gaulle's minister of supply. In his new role and with his regional loyalties, he was perfectly placed to offer support for the revival of the 24 Hours of Le Mans.

The work would cost around £190,000 (about £5 million today). The ruined roadway had to be cleared, filled and resurfaced, most of which could be paid for by the local authorities. But, under Berthier's supervision, the building of new permanent pits, concrete grandstands and a press box for 130 journalists and four radio reporters were the ACO's responsibility, as was the rebuilding of the earth banks and wattle fences separating the spectators from the track. A new timekeepers' tower had room for a staff of eighteen to work in shifts of nine. The pits themselves – six blocks of sixteen units, four in each block for the use of suppliers – now had a balcony for which tickets could be bought. Ranged behind them were thirteen petrol tanks, holding 220 gallons each, with hoses to reach each pit. In the middle of the row was a separate building for the race director and his staff. At the end of the row was a building called *Le Bienvenue*: a restaurant for important guests of the organisers and the teams.

Opposite the pits was the new main grandstand, named after Singher and Durand, with 420 seats. Alongside it were two 520-seat stands, each with a plaque containing a dedication to the men they commemorated: Benoist and

Wimille, Le Mans winners and Resistance heroes. Behind the grandstands was a large hangar-like building housing the main restaurant for the public, with a medical centre and a lavatory block. The esplanades between the pits and Tertre Rouge had to be remade, along with new footbridges; the most notable of these public enclosures was a raised area on the outside of the right-hand curve after the pits, with space for 5,000 people.

Of the total cost, £130,000 was provided by the state, with most of the balance raised through a bank loan. From England came a cheque for £358 11s, the proceeds of an appeal among the members of the British Racing Drivers' Club. Guaranteeing the funding meant that the physical work on the site did not begin until February 1949, five months before the scheduled date for the race. But the ACO's confidence was evident: the regulations for the 17th Grand Prix d'Endurance had been published on 29 December 1948. To consolidate the legend at the moment of its reawakening, the ACO also published the first history of the race: a large, handsome volume titled *Les 24 Heures du Mans*, with text by Roger Labric and illustrations by Géo Ham.

In mid-April, Faroux visited the circuit to inspect the progress of the reconstruction. What he found was encouraging, but much remained to be completed. At the end of May he returned and declared himself 'astonished by the transformation and the work that has been done in such a short time'. Three days earlier, Amédée Gordini had turned up to try out the circuit with a selection from the six cars he had entered. The Garczynski company, which had illuminated the course since 1923, tested the new lighting for the pits and grandstands. There was a circuit once more, and there would be a race.

CHAPTER 8

Rebirth of a nation (1949-54)

Luigi Chinetti had left for America in the spring of 1940, a passenger on the *Conte di Savoia* along with his fellow drivers René Dreyfus and René le Bègue and the 19-year-old Harry Schell, the son of Laury and Lucy O'Reilly Schell, all heading to Indianapolis for the 500-mile race. Afterwards Dreyfus stayed on, opening a celebrated restaurant in Midtown Manhattan. So did Chinetti, who managed to acquire US citizenship, thus neutralising his potential status as an Italian-born enemy alien. Soon he was selling Rolls-Royces to rich Americans, moving in circles similar to those from which he had profited in France. To Tommy Lee, a wealthy Hollywood figure whose businesses included seven Cadillac dealerships, he sold three Talbot coupés, all with Figoni bodywork. Chinetti knew how to keep the wheels turning.

In the winter of 1946 he made a return trip to Europe, and as Christmas approached he went on a mission to Italy. Twenty-five years earlier, Chinetti had been a young mechanic at the Alfa Romeo factory in Portello when he first met Enzo Ferrari, who was a couple of years his senior. Their paths had diverged but they had stayed in touch. It was Chinetti, for instance, who exploited his gift as a spotter of driving talent to guide Raymond Sommer and Guy Moll towards the Scuderia Ferrari. Now he was paying a visit to Ferrari's new factory in Maranello, just outside Modena, for a conversation that changed both their destinies.

While the factory continued with the machine-tools business that had kept the concern going during the war, a group of designers, engineers and mechanics were assembling the first car to bear the Ferrari name: a twelve-cylinder 1.5-litre two-seater known as the 125. Ferrari had already announced his intention to build it in three versions – a two-seater road car, a version for sports car competition and another for Grand Prix racing – but the first example was still three months away from completion when Chinetti arrived on Christmas Eve, having driven down from Paris. In his account, he and Ferrari talked through the night, discussing a proposal he had brought with him. He believed that if Ferrari could make sports cars with a racing heritage for sale to the public, an American market of status-conscious buyers would be ready and waiting. Chinetti promised that if he made five cars he would sell them. And if he made twenty he would sell those, too.

In May 1947 the Ferrari 125 made its competition debut in Piacenza, and two weeks after that, in Rome, came a first race win. A year later a coupé-bodied Ferrari won the Mille Miglia in the hands of Clemente Biondetti. And in September 1948 Chinetti and Lord Selsdon were billed as the winners of the 12 Hours of Paris at Montlhéry at the wheel of Ferrari's next model, the two-litre 166 Spyder Corsa. In fact, Chinetti had driven the entire race alone and promptly sold the car for \$9,000 to Briggs Cunningham II, the heir to the Procter & Gamble fortune, making Cunningham the second American to take delivery of a Ferrari. The first sale had already been made by Chinetti to Tommy Lee, straight off the stand at the Turin Motor Show.

Towards the end of the year Chinetti approached Ferrari with a plan to enter Le Mans in 1949, the race's return to the calendar after a ten-year absence. Chinetti could see that while the Mille Miglia and the Targa Florio were important events in their home country and to racing enthusiasts outside Italy, Le Mans had achieved a different level of public recognition. Ferrari had yet to win a Grand Prix (and the launch of the new Formula 1 world championship series was still a year away), but a win in the resumed 24 Hours would bathe the Ferrari badge – a prancing black horse on a yellow shield – in a very helpful glow.

He wanted Ferrari to give him two of his latest cars – the 166 MM, whose open two-seater body, designed and made by Touring, suggested a name that stuck: the *barchetta*, or little boat – and a squad of eight mechanics to take on the race as a works entry. But Ferrari was wary. It was too soon, he felt, to

commit the Scuderia to such a high-profile adventure. They won that year's Mille Miglia again, and the Targa Florio, too, on both occasions with the redoubtable Biondetti at the wheel, but failure at Le Mans for factory-entered cars would be very visible and damaging to the young company.

As an alternative, he said, there was nothing to stop Chinetti buying two cars from him and entering them himself. And so a pair of two-litre V12-engined barchettas appeared on the ACO's entry list, in the names of Lord Selsdon and Jacques Plisson, Chinetti's partner in Paris. Both cars had raced in the Mille Miglia. Selsdon, a regular at Brooklands before the war and now a director of HRG, would share Biondetti's winning machine with Chinetti; thanks to the Englishman's fourth place in a Lagonda in 1939, their car also qualified for the Biennial Cup. The other car, previously raced by Piero Taruffi, was sold to Pierre Louis-Dreyfus, now masquerading as 'Ferret', with Jean Lucas as his co-driver.

The fact that the Ferraris were able to enter at all was thanks to a momentous change to the rules. Clearly concerned that, since the French motor industry was still struggling to find its feet, the field for their first post-war 24 Hours would consist largely of dusted-down cars from the 1930s, the ACO announced that the race would be open to sports prototypes 'as an exceptional measure to contribute towards a faster revival of automobile manufacture'. Calling it 'an exceptional measure' made it sound like a temporary expedient. In fact it would add an enduring dimension to the race, encouraging innovation and experiment.

As the cars lined up for scrutineering at the Halle aux Toiles, *The Autocar* celebrated the race's return: 'There must be few whose hearts are not stirred a little by the revival of the Grand Prix d'Endurance at Le Mans, for this of all races is the one to appeal to the imagination. All day and all night the cars continue their journey, and compressed into those 24 hours of speed are miles and experiences that accumulate only slowly in the life of a non-racing motorist. None the less, it is because the race is so nearly a speeded-up version of normal motoring, added to the fact that the Sarthe circuit is picturesque, that the popular imagination is fired. "There, but for my natural timidity, go I," says the family tourist as a competitor speeds past under the pines. And if history continues to repeat itself as it has done up to now, there he may well go, natural timidity notwithstanding, for the road-racing speeds of today are the touring speeds of tomorrow.'

Many of the cars had been raced before the war, including Delayahes, Delages and a Bentley coupé, its elegant coachwork commissioned from Georges Paulin by the Paris-based Greek shipowner André Embiricos. Its current owner was H. S. F. Hay, a Cornishman, who would share the wheel with the journalist Tommy Wisdom. The car had been used during the war for family transportation, with blackout hoods over the headlights; it was a prototype in the sense that it inspired Bentley's Continental model, to be launched in 1952. For the race, Hay attached a Thermos flask to the back of the passenger seat.

The authentic prototypes included three two-litre Aston Martin coupés, very different from the pre-war models. They were designated DB2s, using the initials of the engineering magnate David Brown, who had taken over the Aston and Lagonda companies in 1947. A third coupé was powered by a 2.5-litre engine designed by W. O. Bentley, intended eventually to power a Lagonda. Their drivers included Pierre Maréchal, the Anglo-French son of a film producer who had survived the *Titanic* sinking in April 1912, and Leslie Johnson, who had funded his first efforts in motor racing with the proceeds of a successful cabinet-making business in London's East End.

An unknown quantity was the Delettrez, the first diesel-powered car to appear at Le Mans. The French government had recently ordered all new commercial vehicles to be fitted with diesel engines, capitalising on the stock of such power units left behind by the US Army. Taking the notion a little further, Parisian brothers Jean and Jacques Delettrez had built their own sports car, using a 4.4-litre six-cylinder engine from a GMC truck, with bodywork from a pre-war Delage and a chassis welded together from two of the Unic cars made by their father's company.

At the other end of the field was the 750cc Renault 4CV of Camille Hardy and Maurice Roger, the first car bearing that company's name to appear in the 24 Hours. Competing in the same class were a pair of Aero Minors with two-stroke, twin-cylinder engines, built in Czechoslovakia by a company newly nationalised by the Communist government. The smallest car in the entry was a 570cc Simca co-driven by the only woman in the race: Viviane Elder, born Eugénie Hignette into a working-class family in Rennes in 1904. First known as a young actress who appeared opposite Jean Gabin in the 1931 film *Mephisto*, she also became a celebrated aviatrix; her most famous feat was to have got lost in the Sahara and gone missing for five days during a car rally in 1936.

Among the 1100cc cars was a Simca Huit fitted with a special streamlined saloon body and radio equipment with which the drivers, Norbert Mahé and Roger Crovetto, could talk to their pit crew. Two 1100cc Simca-engined Monopoles were built by a components company owned by the maker of the aperitif Pernod. A pair of cars from Automobiles DB – the initials coming from the surnames of Charles Deutsch and René Bonnet, who had built their first racing car together in 1939 – appeared in the 1500cc class, their four-cylinder Citroën engines installed in a chassis designed by Bonnet with the first of many aerodynamic bodies drawn by Deutsch. Monopole and DB were to spearhead a campaign by independent French manufacturers to claim the Index of Performance trophy as their own property.

As well as three of his 1100cc machines, Amédée Gordini had entered two 1500cc cars. But at his new factory near the Porte de Versailles, to which he moved after bombs destroyed his original premises in Suresnes, one of the larger cars had to be left unfinished while the other was completed in a rush. Early on race day Gordini telephoned the ACO to say that only one of his cars would be arriving. At noon he got into the car, with its racing number painted on bonnet, flanks and tail but with no registration plates, and drove south at high speed. Ninety minutes later he reached his destination, only to be barred from taking it into the circuit, too late for scrutineering.

As four o'clock approached on the Saturday, *The Motor's* reporter noted 'ladies in the longest of New Looks perambulated with others in the briefest of shorts. The traditional air of carnival had returned to Le Mans and the 24-hours race was itself again.' The correspondent of *Motor Sport*, coming from a country where rationing was still in force, was similarly impressed, not least by the provisions delivered to the press stand, where he and his colleagues 'sat at school desks and received food boxes and wine tickets at generous intervals'.

More than 180,000 people were packing the circuit – 60,000 of them camping – as Christian Pineau dropped the flag, a French tricolour replacing the usual yellow flag for the first time, to get the forty-nine starters going. A 4.5-litre Bentley saloon stood by for Faroux to use as a course car; sometimes it would embarrass slower competitors by overtaking them during the race as the clerk of the course went out to investigate the scene of an accident.

Gratifyingly for the big crowd, the early stages of the race featured a lively battle between the fastest cars. When it settled down, the two Delahayes entered by Charles Pozzi, a Parisian car dealer, were in front, with Chaboud

ahead of André Simon, the Ferraris seemingly outpaced. The picture changed when a fire in the electrical system put Chaboud's car out just as darkness was falling and the second Delahaye soon succumbed to engine problems. Louis-Dreyfus briefly got his Ferrari into the lead before crashing at Maison Blanche, overturning the car but without damage to himself. And so, with an hour to go to midnight, Chinetti was in an unchallenged lead.

He had driven without relief when, just before dawn, with the nearest pursuer three laps behind, he finally handed over to his co-driver. After allowing Selsdon a stint from 4.26 to 5.38 a.m., Chinetti jumped back in and drove to the finish, coping in the final stages with a slipping clutch, the loss of one of the gears from the car's five-speed box, oil from a leak swilling around the cockpit floor and the clouds of dust which drew complaints from drivers and spectators alike throughout a very hot weekend. The winning drivers' efforts may have been unequal but between them, at the wheel of the first twelve-cylinder car to win at Le Mans, they had covered 1,975 miles at an average speed of 82.28mph, using one set of tyres. When the wear on their Engleberts was measured afterwards, it was found that they had used only 40 per cent of the tread. The Ferrari scooped the Index of Performance trophy and the Biennial Cup, rewarding Chinetti's foresight in securing qualification by pairing up with Lord Selsdon. Three weeks short of his forty-eighth birthday, Chinetti became and would remain the race's oldest winner.

A lap behind were Henri Louveau and the Spanish driver Juan Jover in a Delage, followed by the first British car home, a two-litre Frazer Nash shared by Norman Culpan and H. J. Aldington, ten laps further back. The almost silent Bentley finished sixth, ahead of the surviving Aston Martin DB2. The second Aston prototype came to a tragic end when, with three hours to go, Maréchal suffered complete brake failure at Maison Blanche, the car hit the bank and rolled over, its roof flattened. The driver died the next day in the Delagénère clinic. Maréchal was thirty-three years old, had been educated in England and taken British nationality, and left a wife and son. Several years later his widow married Leslie Johnson, his teammate at Le Mans.

The Delettrez brothers were averaging over 60mph after 179 laps in their diesel-powered car when the radiator hose broke, ending their race. The tiny Simca of the former film star Viviane Elder disappeared with engine failure during the night, as did she until her obscure death in Cannes the following year. She was buried in an unmarked grave, far away – as the journalist Olivier

Berrezel would observe in *Ouest-France* – from the spotlights of the Croisette, or indeed from those of Le Mans. And when Claude Batault crashed a Simca Huit coupé just after first light on Sunday, he provided the race with a surprisingly rare example of a driver in the 24 Hours falling asleep at the wheel.

The winners were greeted by Vincent Auriol, the president of the Republic, marking the first visit to the race by France's head of state. After arriving in the city earlier in the day, greeted at the station by a formal guard of honour and a military band, he had attended a formal lunch with local dignitaries before being driven to the circuit in a motorcade in time for the finish. He saluted the part played by the people of Le Mans not just in what he called the 'miraculous renaissance' of their great race but in the reawakening of the nation. It was, he said, an example of 'the indomitable French will'.

Amid this rebirth, one reputation was being born. In the long eye of history, perhaps no single victory held more significance for the evolution of Ferrari into not just the most potent name in motor sport but a symbol of the glamour of fast cars, whether on road or track. Like W. O. Bentley and Ettore Bugatti before him, Enzo Ferrari found his doubts dissolving as success at Le Mans put his company's name in headlines around the world. Nothing else could have done the job so quickly and effectively, laying the foundation for all that was to come.

Louis Rosier, a Renault dealer from Clermont-Ferrand, had raced at Le Mans only once before the outbreak of war diverted him into joining the Resistance. In peacetime he bought a 4.5-litre single-seater Talbot-Lago Grand Prix car, winning a famous victory at Spa in 1949 over the supercharged 1.5-litre cars of the works Ferrari and Maserati teams, thanks largely to his car's more frugal use of petrol. A week later he took a different Talbot, a special-bodied four-litre machine, to Le Mans with his son, Jean-Louis, as co-driver. With twenty-one laps gone they were in fourth place when the fan belt broke, three laps before the first permitted pit stop, forcing them to retire. In 1950 he and Jean-Louis, now aged forty-four and twenty-five respectively, were back with another Grand Prix Talbot-Lago to which an extra seat, lights and cycle wings had been added, plus a spare wheel bolted to the side of the bodywork, just

ahead of the cockpit. By comparison with some of its newer rivals, it seemed almost rustic.

It looked like a greyhound, however, compared with the two cars that had disembarked from an ocean-going ship at Le Havre. They had been brought by Briggs Cunningham II, one of the richest men in America, the beneficiary of wealth accumulated from shipping, meat packing, banks and railroads and, most particularly, the giant Procter & Gamble company, makers of soap and other associated products. Born in Cincinnati, Ohio, in 1907, Cunningham had graduated from Yale and raced boats and cars.

On a pre-war visit to Europe, Cunningham had travelled to see the 24 Hours of Le Mans and was seized by the idea of competing in the great race. With the Ferrari he had bought from Luigi Chinetti in 1949, he won the marque's first victories in America, but for Le Mans in 1950, despite Chinetti's offers to sell him the latest machines from Maranello, he insisted on taking American-built cars. First he submitted an entry for two Fordillacs – Ford coupés with Cadillac engines. The ACO rejected them, clearly feeling that Le Mans was not the place for hot rods.

After Chinetti put in a word, they accepted Cunningham's substitutes: a pair of Cadillacs, painted in the American racing colours of white and blue. The first was a basic Series 61 Coupé with a 5.4-litre V8 engine, lightly modified but still with lots of exterior chromework. For the second, Cunningham had ordered a new lightweight frame and an open sports body shaped by an aerodynamicist at the Grumman military aircraft factory in Bethpage, New York. The result was like something from a science-fiction comic: low and streamlined, with the wheels covered, two holes for the headlights flanking an oblong air intake cut into a bland sheet of metal, the squared-off shape undisturbed by any sort of excrescence. Unlike many rudimentary attempts at aerodynamic design, it was not created with a concern for aesthetics.

It took only one glance for the spectators at Le Mans to christen it *le Monstre*. Probably the only thing uglier at Le Mans that year was a blue and black Mercedes, once the property of Adolf Hitler and now – only five years after the Liberation – being exhibited in the city. This was a real monster: 4,000kg of bodywork with armour plate between 10 and 18mm thick, allegedly good for 125mph. A report in *Ouest-France* pointed out that, having served to take the Führer and his girlfriend Eva Braun for rides in the country, now it

was doing social work: the proceeds from the exhibition would go to a charity for war victims.

On the track, too, Cunningham's cars – equipped with two-way radios for communication between drivers and pits, still a novelty – were far from being the only talking points at the second post-war 24 Hours. Another Cadillac-engined car was brought by Sydney Allard, a sports car manufacturer from south London; his American co-driver, Tom Cole, had suggested putting the Detroit-built V8 into Allard's chassis. A 3.9-litre Nash-Healey, with a six-cylinder Nash engine in one of Donald Healey's chassis, was another Anglo-American collaboration; the idea had been cooked up when Healey met George Nash while sailing to New York on the *Queen Elizabeth*.

The Delettrez was back, joined by an even more imposing diesel-engined machine: the bulbous supercharged five-litre MAP (Manufactures d'Armes de Paris), the first mid-engined car to appear in the race, co-driven by Pierre Veyron, a former winner. A shoal of Gordinis included a pair of delicately pretty supercharged 1.5-litre coupés, one to be driven by two Argentinian drivers who were making an impact in top-line European racing: Juan Manuel Fangio, already a member of Alfa Romeo's Grand Prix team, and his burly friend José Froilán González.

Jaguar had arrived with three alloy-bodied versions of their new XK120 sports car for a team of experienced drivers, registered as private entries but looked after by Frank 'Lofty' England, the company's service manager, and John Eason Gibson, a former Aston Martin team manager. The firm had its origins in the Swallow Sidecar Company, co-founded by William Lyons in Coventry in 1922. The Jaguar name had first been used on a sporting two-seater, the SS Jaguar 100, in 1935, and ten years later it became the name of the company. The 3.4-litre XK120, designed by Bill Heynes, Jaguar's chief engineer, had been the hit of the 1948 Earl's Court Motor Show: a sophisticated 120mph sports car for £1,263, a very reasonable price compared to just under £2,000 for the equivalent being readied for its launch by Aston Martin eighteen months later. Conscious of the export potential, Jaguar sent the first car off the production line to the Hollywood actor Clark Gable. The palm-lined streets of Beverly Hills would rival the roads of the Sarthe as a natural setting for the XK's allure.

The Ferrari success of 1949 had prompted the arrival of five cars from Maranello, although still none was an official works entry. Two, entered by

Chinetti, were new 2.4-litre models, one with pale blue Touring coupé bodywork for Raymond Sommer and Dorino Serafini, the other an open car for Chinetti himself and Pierre Louis-Dreyfus, once more calling himself 'Heldé'. Chinetti also entered a 166 coupé for Yvonne Simon, a Frenchwoman who had competed in rallies before the war. Having raced the car in Porto on the Sunday before Le Mans, she drove it 1,000 miles to reach scrutineering just in time.

In one of two Ferrari 166 barchettas were Jean Lucas and Lord Selsdon. The other was entered by a newcomer with a reputation for exploits not in motor sport but in the equally competitive field of seducing and marrying actresses and heiresses. The Dominican diplomat, polo player and playboy Porfirio Rubirosa had recently separated from Doris Duke, 'the richest girl in the world', after his divorces from Flor de Trujillo, daughter of the Dominican Republic's dictator, and the French actress Danielle Darrieux. Famous for a physical endowment that led a generation of Italian waiters to refer to the large pepper grinder found in high-class restaurants as the 'Rubi', he would go on to marry twice more, first the Woolworth's heiress Barbara Hutton and then another French actress, Odile Rodin, while enjoying affairs with the likes of Dolores Del Río, Ava Gardner, Rita Hayworth and Romy Schneider. The witnesses at his marriage to Duke were Jean-Pierre Wimille and Pierre Leygonie, close friends who had first met in 1932. That was when Leygonie drove Marguerite Mareuse's Bugatti in the Dieppe Grand Prix, his performance persuading him that he wasn't fast enough to be a racing driver. Eighteen years later, and with no further experience, he was unable to resist Rubirosa's invitation to join him in the Ferrari at Le Mans. For Rubi, forty-one years old, it would be his first race of any kind.

Two dozen manufacturers were represented among the sixty starters. They assembled for scrutineering not at the traditional venue, the increasingly dilapidated Halle aux Toiles, but at the nearby Manège Cavignac, an old stable off the Place de la République. Even before their arrival, there were incidents. The Cunningham driver Phil Walters severely crumpled the front end of the 'monster' against a stationary hay wagon while apparently taking a secretary from the ACO for an unofficial practice lap on the Saturday before the race. Cunningham chartered a plane to fly an American panel-beater named Bob Blake from England, where he was visiting his in-laws, to straighten out the damage, with the aid of local craftsmen.

The Gordini team was in the usual panic over getting its cars ready in time, particularly the two new Type 15S coupés. During the second night-time practice session, while the engine of his own car was being taken out and examined by Gordini's mechanics, Fangio borrowed Chinetti's Ferrari to familiarise himself with a circuit whose relaid surface, along with newly grassed spectator enclosures, would – according to the organisers – banish the dust that caused such irritation the previous year. Much of the track had also been widened, and there was a new footbridge in place of the old one at the bend after the pits, built in the shape of half a tyre and sponsored by Dunlop, whose products now held a virtual monopoly of success in the race.

Competitors would be offered only an eighty-octane type of Shell petrol from the tanks over the pits, to be taken at a minimum of twenty-five-lap intervals. Lights had to be illuminated between 9.30 p.m. and 4.30 a.m.; any car seen with malfunctioning lights during those hours would be called into the pits and, if they could not be repaired, held there until daylight. A prize of 100,000 francs was offered by the magazine *Science et Vie* for the driver setting the fastest lap.

Given the record size of the field, and the diversity of the machinery, Charles Faroux issued a direct communiqué to the drivers: 'The maximum speeds of various competing cars are very different, varying from 75mph to 140mph. It is therefore *essential* that drivers of the smaller cars should keep well to the right at all times. This is a matter on which the organisers will be inflexible. The greatest danger will be for two cars of a similar speed to run abreast, blocking the road and hindering other competitors. Passing is not to be attempted except on the wide section of the circuit, *never* between Mulsanne and Arnage. Finally, in passing the grandstands the small cars must never encroach on the left-hand side of the road, indicated by a white line. I stress this because it is a matter of the greatest seriousness.'

Sommer and his Ferrari were soon in the lead as the cars set off on a warm afternoon. Fangio, the future five-times world champion, got away last, his Gordini at first refusing to fire and then spluttering into life as the rest of the field disappeared towards the new Dunlop bridge. After an hour Sommer had eased into a minute's lead over the two Talbot-Lagos of Louis Rosier and Guy Mairesse, but his progress was interrupted by a stop to repair a broken dynamo bracket. Shortly afterwards he brought the car back in to retire, joining his British friends in *The Motor's* pit for a glass of champagne. This

would be the last appearance at Le Mans for the winner of 1932 and 1933. Three months later, during a minor race at Cadours, driving an 1100cc Cooper and wearing his usual linen wind cap, Sommer rolled the car and was killed.

For the Ferraris in general, the euphoria of 1949 was already a distant memory. Yvonne Simon's long drive from Porto had been in vain; she retired after only twenty-five laps, having extracted her Ferrari from a sandbank and then run out of fuel. Rubirosa's clutch failed after forty-four laps. Following Sommer's disappearance, Chinetti and 'Heldé' went out with transmission failure in the early morning while Lucas overturned the last remaining car from Maranello at Tertre Rouge, without injury.

The fate of the Gordinis was just as lamentable: seven starters, no finishers. Of the two supercharged coupés with which they hoped to win the Coupe à la Distance, the car shared by the factory's current Grand Prix drivers, Maurice Trintignant and Robert Manzon, retired with smoke pouring from the engine, while a valve broke on the machine of Fangio and González. The last of the seven to disappear was an 1100cc open car driven by Régine Gordini, also entitled to be known, thanks to her marriage to a Russian-born film producer, as the Princess of Bashkir, and Germaine Rouault, a rally driver. It was Rouault who crashed into a sandbank, completing Gordini's humiliation.

Louis Rosier seemed to be cruising to victory when, after thirteen hours at the wheel, he finally handed over to his son during a stop to replace a broken rocker arm in the engine at around five o'clock in the morning. Two laps later, now in second place, Jean-Louis was recalled and his father took on the pursuit of the new leader, the pre-war Talbot of Mairesse and Pierre Meyrat. A barn owl flew into his path, breaking his goggles and the car's aeroscreen, but soon he was back in the lead and on his way to the win. He had driven for more than twenty-three hours, eating only a couple of bananas, as the car covered a record distance of 2,153 miles at an average speed of 89mph, while setting a new lap record at over 100mph to collect the bonus from *Sport et Vie*. There had been mutterings about the ACO accepting what was basically a Grand Prix car with wings and lights, but the one-two finish was a great success for Anthony Lago, twelve years after he had rescued Talbot and placed success on the track high on the list of his priorities.

Third came the lusty Allard-Cadillac, followed by two Aston DB2s. The first of them, driven by Lance Macklin and George Abecassis, shared the Index of Performance award with Pierre Hémard and Jean de Montrémy in a

Monopole whose front wheels were driven by an air-cooled, flat-twin, 611cc Panhard engine. Fourth overall was the Nash-Healey, shared by Tony Rolt, a former RAF pilot whose many attempts to escape from German POW camps had landed him in Colditz Castle, with the boisterous Duncan Hamilton, who had survived many colourful scrapes as a Fleet Air Arm pilot and while racing a MG and a Bugatti. After seeing Hamilton in action for the first time on the Isle of Man two years earlier, Rolt had told him: 'The object is to get round quickly, not to kill yourself.'

In eighth place was the only competitor in the history of the 24 Hours of Le Mans to drive the whole event single-handed, from start to finish. Eddie Hall, a 50-year-old Huddersfield woollen manufacturer and Olympic bobsleigh competitor, achieved his unique feat in a much-modified 1934 4 ¼-litre Bentley. Hall had been racing cars since the early 1920s. When the Bentley was brand-new, fitted with its original open bodywork and 3.5-litre engine, he put the top up and set off on a windy spring day, in the age before motorways, to drive from his home in South Yorkshire to his London flat on Baker Street, covering 187 miles in 178 minutes at an average of 64mph, stopping only once to wait at a level crossing. Now, with a coupé body and a bigger engine, the Bentley enabled Hall to complete the race at Le Mans without calling on the services of his co-driver.

Cunningham's two Cadillacs rumbled round to finish tenth and eleventh, with the surviving works Jaguar XK120s in twelfth and fifteenth after suffering from problems with their drum brakes. The MAP and the Delettrez diesels were among the twenty-two retirements from the thirty-five French cars that had started out, one of the five Renault 4CVs ending its race in a lurid and disturbing fashion. While Marcel Joseph was passing the main grandstands at five o'clock in the morning, correctly keeping to the right-hand side of the track, the Talbot-Lago coupé of the 66-year-old André Morel overtook him before cutting across to stop at its pit. As the two cars touched, the Renault somersaulted, knocking over two gendarmes standing in front of the clerk of the course's office and coming to rest on its roof. There were no serious injuries.

As the winners celebrated their success, among those packing up and preparing to leave the circuit were the members of a British film unit, loading their equipment into a pair of lorries before heading home. A reporter and photographer from *Ouest-France* had recorded the presence of a crew from

Guild Productions of London, shooting scenes for a feature film with the race as a setting. The story involved a young female driver, played by the actress Jean Lodge in green overalls and a white cotton wind bonnet, competing in an XK120 while embroiled in a love affair with an engineer played by Michael Medwin. With four cameras positioned around the circuit, sequences shot during the race itself would be intercut with staged footage of the driver and her Jaguar in the pits. Miss Lodge's pale blue XK carried the race number 15 – the same as the white-painted Johnson/Hadley car. A good job, the newspaper remarked, that the shooting was being done in black and white. Alas, the untitled film never made it to the cinemas.

Reflecting on the second post-war edition of the race, *The Autocar* expressed disapproval of the ACO's decision to continue waiving their old rule prohibiting the inclusion of prototypes: 'Events suggest that the sooner this state of affairs ceases to exist, the sooner the race will resume its original role of a supreme reliability test for sports cars. Over-laxity will tend to spoil the event entirely.' The arrival in 1951 of the C-type Jaguar provided all the arguments in favour of prototypes the organisers might have needed.

A low-slung machine using a highly developed version of the road car's straight-six engine inside a tubular frame and a smoothly curved alloy body, its existence was kept a closely guarded secret until a few days before the race. After six months of work at Jaguar's Coventry factory, the C-type had been tested behind closed gates at the Motor Industry Research Association's test track laid out on a disused RAF base in Warwickshire. Now three cars arrived for scrutineering, which had been moved again, this time to the new gymnasium of the Sporting Club Moderne. One was to be driven by Leslie Johnson and the Italian endurance-racing specialist Clemente Biondetti, a second by Stirling Moss, the 21-year-old rising star of British racing, with the veteran Jack Fairman, and a third by two gentleman drivers, the Yorkshire-born farmers Peter Walker and Peter Whitehead.

At the top of the entry list were two Allard-Cadillacs and three new Cunningham C-2R roadsters, now with 5.5-litre Chrysler V8 engines, five Talbot-Lagos of the kind with which the Rosiers had won the previous year's race, and no fewer than nine Ferraris, including four examples of the new 340 America model, a recent winner of the Mille Miglia, using a 4.1-litre version of

the company's current Grand Prix engine. Briggs Cunningham's arrival with a squad of three specially built roadsters eight days ahead of the race was celebrated by the daily paper *La Maine Libre* with the headline: 'Now that the Cunninghams are here, the 24 Hours begins.'

There was also the first sight at Le Mans of Lancia, in the shape of the new B20 Aurelia coupé, and of cars bearing the name of Porsche. Five years earlier Charles Faroux had helped secure the release from a French prison of the 70-year-old Ferdinand Porsche, the Austrian-born designer of the Mercedes SSK, the Auto Union Grand Prix car, the Volkswagen and the Tiger tank. Exonerated in 1948 of charges based on his wartime activities, he had died in January 1951. The new cars racing under the family name were designed by his son, Ferry, with Erwin Komenda, another Austrian engineer. Based on the VW, the little 1100cc coupés with spats over all four wheels were built at a new factory in Zuffenhausen, a suburb of Stuttgart to which the company had returned from their wartime base in the Carinthian Mountains.

So many entries had been received for the sixty available starting places that for the first time the organisers announced a list of reserves. There were few changes to the regulations, although non-French entrants were now required to conform to the local custom of making their headlights shine with yellow beams, something that for many years led British holidaymakers driving in France to coat their lenses with special yellow paint to produce the required nicotine-coloured shafts of illumination.

The teams were scattered around the town and the surrounding villages, from Chinetti's Ferraris at the Garage Garczynski on rue du Pavé, where the cars were photographed next to a Léon Bollée three-wheeler of 1898, to Porsche in the village of Teloché. The Aston Martin team were at the Domaine de Beauchamps, the extensive grounds giving some team members the opportunity to accompany the visiting Prince Bertil of Sweden on a rabbit shoot. Amédée Gordini set up camp in his favoured Hôtel du Cheval-Blanc in Le Grand-Lucé, where his drivers and their wives could wander across to observe the deer in the grounds of the nearby château. Quartered at the Hôtel du Cygne in Yvré-l'Évêque were the all-female crew of a Ferrari 166 MM: Yvonne Simon, the car's French owner, and her co-driver, Betty Haig. A grand-niece of the commander of the British Expeditionary Force in the Great War, Haig had won a 2,000-mile rally run alongside the 1936 Olympic Games and was a regular competitor at British race meetings. The third member of

their party was her companion, Barbara Marshall, who had been her navigator in the Olympic rally and was discreetly described in *Le Maine Libre* as the team's mechanic.

A midweek thunderstorm disrupted the practice sessions, during which one of the two Porsches was overturned and wrecked at Maison Blanche. Forecasts of more bad weather cut the number of planes arriving at the airfield behind the grandstands from the fifty of the previous year to twenty, but more than 16,000 cars were parked around the circuit as 126,000 spectators gathered for the start. Laws on licensing hours had been suspended in bars at the circuit, in Le Mans and nearby villages, permitting alcohol to be served throughout the night. Among the guests of honour was the French cyclist Jean Robic, winner of the 1947 Tour de France, a tiny, almost wizened figure not easily recognisable without the leather track helmet he wore during races after fracturing his skull.

Tom Cole's Allard led the field away in front of the packed grandstands, but by the time the cars returned at the end of the first lap it was a Talbot driven by José Froilán González in front, with Moss on his heels. Hired by Jaguar after winning the previous year's Tourist Trophy at the wheel of a borrowed XK120 in terrible conditions, Moss had sprinted across the track to get off the line quickly. After five laps of harrying the leader, he made it past the Talbot and began drawing away, breaking the lap record time after time until leaving it at 4min 46.8sec, an average of 105.2mph.

A tragedy blighted the race in its early stages when Jacques Larivière, a garage owner from Agadir, went off at Tertre Rouge on his sixth lap in an open-cockpit Ferrari 212 Export owned by the jazz trumpeter and bandleader Johnny Claes, himself driving one of the bigger Ferrari coupés. Having bounced over the sandbank, the cream-coloured car went through a barbed-wire fence before landing in a garden. When it came to rest, Larivière was dead, garroted by the wire.

Rain came and went, the drivers taking advantage of new tents behind the pit, where they could rest between stints. Moss and Fairman led for eight hours, easily keeping at bay the two fastest Talbots, the first driven by González and his compatriot Onofre Marimón and the second by Rosier and Fangio. Around midnight, however, vibration cracked a copper pipe leading to the Jaguar's sump, causing a rapid loss of oil pressure. The same problem had already affected the Johnson/Biondetti car, and both were out. But once the

Talbots had also retired soon after midnight, both with cooling problems, the steady pairing of Walker and Whitehead assumed a lead they would hold for the last fifteen hours, looking after their C-type well and finishing nine laps ahead of the previous year's runners-up, Mairesse and Meyrat in their Talbot.

The Aston Martin DB2 of Lance Macklin and George Abecassis took an excellent third place, with another two Astons fifth and seventh, giving them the top three places in the three-litre class and, with two more in tenth and thirteenth, a 100 per cent finish. Writing in *L'Équipe*, Charles Faroux poured praise on the performance of the British cars: the speed of the Jaguars, the reliability of the Astons, the style of the sixth-placed Nash-Healey.

The Monopole of Hémard and de Montrémy won the Index of Performance for the second year in a row, despite an incident on the Sunday afternoon which saw de Montrémy having to hack away at a thick hedge in which the car had become embedded when he left the road at Tertre Rouge. Of the newcomers, there were class wins for the two-litre Lancia of Giovanni Bracco and Count Johnny Lurani and – in a powerful portent of the future relationship between the race and the marque – the 1100cc Porsche driven by Auguste Veuillet, the company's Paris agent, and Edmond Mouche, a local driver. Among those who retired or failed to qualify as finishers were the entire Cunningham and Gordini teams and a works 1200cc MG entered as 'EX 172', which turned out to be a prototype of the MGA.

At a *grand bal* in the Place de la République that evening, where the orchestra of Cole Bernard played for dancers, the music was halted for the presentation of the successful drivers. Whitehead and Walker had broken all previous marks by covering 2,244 miles at an average of 93.5mph, despite heavy rain falling for much of the night. Moss, with his new lap record, was warmly applauded. Mlles Simon and Haig, who had finished fifteenth, received the Coupe Hardyan, a statuette presented by a local jeweller for the best performance by women drivers.

For Jaguar, a win at Le Mans would turn out to be priceless. On the day after the race, the journalist Gordon Wilkins, who had co-driven a Jowett Jupiter to victory in the 1500cc class, was given the keys to the winning C-type and invited to cover a few laps of the circuit on roads now open to the public again, and to share his impressions with the readers of *The Autocar*. Despite the need to negotiate the two-way traffic of a normal Monday morning, Wilkins managed to get up to 130mph on the straight, about 20mph short of the speed

the car would have reached during the race. He discovered that such performance had been achieved ‘while retaining the Jaguar characteristics – it is still a smooth, quiet, tractable motor car, which can be driven in town traffic without exciting any comment. That is not to say that the car, with its race numbers on, slid through the streets of Le Mans unnoticed – its progress was accompanied by clapping and cheers.’

Even as he absorbed the disappointment of two cars eliminated by crashes and a third by engine failure, Briggs Cunningham was giving assurances that he would be back in twelve months’ time. And on Thursday 5 June 1952, nine days before the start of the race, the evidence could be seen on the dockside in Le Havre as the hold of the Cunard liner *Mauretania* disgorged three of the new Cunningham C-4Rs, two roadsters and a coupé, painted in white with a double blue stripe down the centre line – Cunningham’s personal variation on the racing colours of the USA – plus six other large American cars for the team personnel and sixty numbered cases of spares weighing 12 tons, including two complete spare engines. It was a cross between the D-Day landings and the arrival of a Hollywood star plus entourage at the Cannes Film Festival.

A van had come from a Shell depot in Rouen so that the Chrysler-engined cars could be filled with suitable petrol before being driven the 200 kilometres to Le Mans. Once the motorcade had completed its journey and begun unloading its equipment in the Garage Guillon, the team’s millionaire owner impressed journalists by his willingness to leave the comfort of the Hôtel Continental and, as one put it, *mettre la main à la pâte* – to get his hands dirty. The ACO welcomed the team with an official *vin d’honneur* at the Brasserie Grüber.

A more discreet return was made by the Mercedes-Benz team, back at Le Mans for the first time since Rudi Caracciola had mounted a vain battle against the Bentleys in 1930. After settling in at the Hôtel du Faisan-Doré in Champagné, the German team’s press man told reporters: ‘We’re here to win, like the others. But you must remember that the German motor industry has started from zero.’ When they unloaded their cars and presented them to the scrutineers, onlookers were impressed by the strange doors of the silver coupés, which opened upwards, resembling the shape of seagulls’ wings.

The three-litre, six-cylinder cars had been designed by Rudolf Uhlenhaut, the team was being managed by Alfred Neubauer, and among their drivers was Hermann Lang, the European champion of 1939: a reunion of key figures in the team that had dominated Grand Prix racing before war broke out. In February 1951 they had travelled to race in Argentina with three pre-war single-seaters, only to discover that technology had moved on. A trip to that year's Indianapolis 500 was quickly cancelled. Instead, their efforts went into preparing the new sports cars.

The two-seater W194s broke cover in the first week of May 1952 at the Mille Miglia, in which they finished second and fourth. They brought three brand-new cars to Le Mans, and two others as spares, with seventy personnel in attendance, twenty of them technicians and twenty mechanics. Their baggage also included 300 Continental tyres. One of the spare cars, driven in the practice sessions, featured an experimental roof-mounted air brake: an alloy panel mounted on pillars and locked in a horizontal position above the roof until the driver pressed a pedal that set it at an angle in order to disturb the airflow, functioning like the devices fitted on the fuselages of jet fighters such as the F86 Sabre and the MiG-15, then in combat in the skies above Korea.

The Germans were welcomed back to France, but history still loomed in the rear-view mirror. On the Wednesday before the race, sharing the front page of *La Nouvelle République* with news of competitors assembling for scrutineering was a photograph of Marguerite Rouffanche, a survivor of the massacre eight years earlier to the day at the village of Oradour-sur-Glane, 190 miles to the south. Two months before the liberation of Le Mans, soldiers of an SS Panzer division had locked 247 women and 205 children into a church and set fire to it, killing all but one of those inside. Despite being wounded by a bullet as she escaped through a sacristy window, Mme Rouffanche lived to bear witness; the burned remains of the village became a permanent memorial.

As defending champions, Jaguar had good reason to be confident. The team's hopes were high for a new version of the C-type, its nose lowered and its radiator intake narrowed in a late modification intended by the team's airflow expert, the former aircraft engineer Malcolm Sayer, to improve the car's aerodynamic penetration. This time Stirling Moss would be joined by Peter Walker while Peter Whitehead was teamed with Ian Stewart. In the third car, Duncan Hamilton and Tony Rolt resumed their partnership.

Aston Martin's owner, David Brown, arrived at Le Mans from Deauville in a De Havilland Dove, accompanied by his wife and the Austrian engineer Robert Eberan von Eberhorst, who had designed Auto Union's D-type Grand Prix car in 1938. Brown could inspect von Eberhorst's latest work: his team's three new 2.6-litre DB3 models, a coupé and two roadsters, one of them crewed by Lance Macklin and a new British star, the 20-year-old Peter Collins, a garage owner's son from Kidderminster. French journalists who visited the Aston Martin base at the Domaine de Beauchamp were amused to see the mechanics downing tools for tea every afternoon promptly at five o'clock.

Amédée Gordini, deprived of his long-term support from Simca, was now part-financed by public subscription and entered only two cars. There were high hopes for one of them, a 2.3-litre T15S in the hands of Jean Behra and Robert Manzon, his current Grand Prix drivers, but the car intended for Le Mans had been wrecked in an accident at Monaco two weeks earlier. A new one was hastily built up, finished so late that Behra had to drive it from Paris to Le Mans at high speed, a journey he completed in ninety-two minutes. Having touched 150mph at several points en route, the 26-year-old from Nice arrived to an ovation from the team.

The prize for the Coupe à la Distance had been raised to match that of the Index of Performance: both were now fixed at 1.5 million francs. But no women would be competing for the prizes this time. Lamenting their absence, *Le Maine Libre* offered an explanation: 'The ever-growing scale of the race, which demands increasingly assertive physical qualities and technical skills from the drivers, would be more than enough to explain this abstention. But we'd bet a jar of our succulent Sarthe rillettes against a Cunningham coupé that sometime in the next few years we'll be seeing fiery amazons at the wheel of powerful cars...'

The story of the 1952 edition of the 24 Hours of Le Mans would have to include the way, in front of 180,000 witnesses, André Simon took an early lead in his blue Ferrari 340 America before losing it to his fellow Ferrari driver Alberto Ascari, who scorched round the track, setting new lap records until clutch trouble put him out in the third hour. It would record the collective catastrophe that befell the Jaguars when their new aerodynamic bodywork created cooling problems fatal to all three cars, the excitement among the

home crowd when Behra and Manzon held the lead in their Gordini from nine o'clock on Saturday night until their brakes disintegrated just before dawn, and the calm manner in which the two surviving Mercedes inherited the victory, Hermann Lang and Fritz Riess completing 277 laps in their 300SL, covering a record 2,320 miles at an average of 96mph to finish a lap ahead of their teammates, Theo Helfrich and Helmut Niedermayr, securing the first victory at Le Mans for a German team.

It would also be necessary to mention an excellent third place for the Nash-Healey of Johnson and Wisdom, ahead of the surviving C-4R in fourth place, the Cunningham's team's best result yet, with Bill Spear and Cunningham himself at the wheel. It would find space to record Chinetti's fury following his disqualification during the early hours for refuelling after twenty-seven rather than twenty-eight laps, and it would certainly not ignore a third consecutive victory in the Index of Performance for the Panhard-engined Monopole, or the repeat class wins for Lancia, Porsche and Jowett.

But the real story of the twentieth 24 Hours of Le Mans was that of 'Pierre Levegh' – Pierre Eugène Alfred Bouillin as he was in real life, the 46-year-old owner of a garage and a brush factory in Paris. Or 'the Bishop', as his fellow drivers sometimes called him, in reference to his habitually solemn demeanour. In his youth he had played ice hockey, well enough to be picked for the national squad at the age of twenty, and was equally gifted on the tennis court. At seventeen he had been a spectator at the very first 24 Hours of Le Mans and had taken up motor racing with a Bugatti in 1937. His late uncle, Alfred Velghe, raced successfully from 1898 until his death in 1904, under the alias 'Levegh' – an anagram of his surname. His nephew decided to use it, too, in homage to a man he had never known.

Levegh competed at Le Mans in Talbots in 1938 and 1939, failing to finish on both occasions. After the war he crashed while racing a Maserati in the 1947 French Grand Prix at Lyon, killing four spectators, injuring fifteen others and hurting himself so badly that he was out of racing for a year. He returned to Le Mans in 1951 to finish fourth in another Talbot with René Marchand, a friend from his ice hockey days. Now they were back to share Levegh's newly acquired Talbot T26 Grand Sport, its 4.5-litre engine enclosed within bodywork commissioned by Levegh, designed by Charles Deutsch and fabricated by the coachbuilder Dugarreau.

In the race Levegh took what would, in the normal course of events, have been the first stint. A respectable seventh at the end of the opening hour, the pale blue Talbot rose up the leaderboard as attrition removed one rival after another. Still at the wheel after five hours, he was lying second behind Behra and Manzon, unable to mount a challenge but holding station until half-distance, the point at which his rival cracked, as Gordinis always did at Le Mans. After twelve hours of driving solo, he was in the lead, four laps ahead of the nearest Mercedes. And he was not about to leave it there.

As morning turned into afternoon and Marchand kicked his heels in the pits while his teammate continued to churn round, the journalist Georges Fraichard was worried about the condition of a driver he knew well. Observing Levegh during a late pit stop, he described him as ‘an absolutely exhausted man, completely worn out, who could hardly remain on his feet. His eyes were staring. He did not recognise me.’ Denise Bouillin, the driver’s wife, who had been keeping the lap chart throughout the race, was also worried. Her husband had eaten nothing but a dozen or so oranges during the race, washed down with mineral water. With Marchand’s acquiescence, she planned to lure him out of the car to eat one last orange during his final stop, allowing Marchand to jump in and complete the drive to the chequered flag. But her husband wasn’t falling for it.

And then, towards the end of the twenty-third hour, the fears were justified. After more than 250 laps – more than 2,000 miles – at an average of just under 100mph, the car came to a halt between Arnage and Maison Blanche. The official cause was a broken crankshaft. Whether a tired Levegh had gone for third gear coming out of Arnage and selected first by mistake, as some suggested, was never confirmed. The car was fitted with a Wilson pre-selector gearbox, which ought to have made that sort of mistake less likely. But whatever the circumstances, his epic drive was over, and human fatigue was almost certainly the cause. At least he hadn’t crashed. An hour later the two Mercedes staged a formation finish as Charles Faroux waved the chequered flag.

Back in the pits, the exhausted Levegh, the last of the forty retirements from the fifty-seven starters, was consoled by some of his fellow drivers. Faroux led him out before the crowds in the grandstands. ‘An immense ovation greeted a champion of indomitable courage,’ Fernand Legouge wrote in *France Sports*. Levegh was asked if he had been tiring towards the end. ‘Of

course,' he replied. 'But not so much that I wasn't in control of my reflexes. Most of all I suffered from a kind of numbness in my legs.'

At the formal prizegiving ceremony in the ACO's new headquarters on the Boulevard René-Levasseur, the Mercedes drivers persuaded him to pose with them for a photograph. As Philippe Lafay, *Le Maine Libre's* staff cameraman, pressed the shutter, Levegh was standing in the middle of the winning group – their smiles warm and sympathetic, his expression unreadable. Half a century later his Talbot, restored to its Le Mans condition after many years of use in historic races, would be sold at auction for €1.3 million.

As dawn broke on the morning of the 1953 race, Duncan Hamilton and Major Tony Rolt had been up all night and were nursing hangovers. The previous afternoon the two works Jaguar drivers had been told that they would not be allowed to compete. The organisers had disqualified their car, a C-type bearing the race number 18. Along with three cars for the race, the team had brought a fourth as a spare, also carrying the number 18 on its bodywork, and sent it out during practice for a few exploratory laps with Norman Dewis, normally Jaguar's test driver but now nominated as a reserve, at the wheel. Mort Morris-Goodall, the team manager, appeared not to have spotted the existence of a new rule prohibiting the use of spare cars. The ACO's response had been swift and ruthless: car number 18 was out, whichever car it was.

In Hamilton's account of the weekend, he and Rolt decided that the only proper response was to go out and get drunk. William Lyons, the chairman of Jaguar, had appealed to the stewards, but the drivers knew that at Le Mans above all places, rules were made to be kept, with no excuses. Leaving their wives – whom they had alerted to their intentions – in their hotel, they spent the night bar-crawling. It was not until early on Saturday morning, when they were drinking coffee at the Brasserie Grüber, that Lyons walked in and told them that he had paid a 25,000 franc fine and they and the car were free to race. Free, but hardly fit. After various attempts to improve their sorry state had proved ineffective, Hamilton's last throw was one of desperation: a large cognac. It seemed to help, and Rolt followed suit. By four o'clock they were more or less ready to go.

The ACO's response to Levegh's self-inflicted ordeal a year earlier was decisive: there would be no more solo marathons. The maximum length of a

single driving stint would now be eighty laps – getting on for seven hours in one of the faster cars, including pit stops – and no driver would be allowed to occupy the cockpit for more than an aggregate of eighteen hours. Levegh himself was back, once more in a Talbot, but this time his co-driver would be required to do more than sit on the pit counter cutting up oranges.

The field of sixty cars was the most diverse yet assembled at Le Mans, including twenty factory teams: Alfa Romeo, Allard, Aston Martin, Austin Healey, Borgward, Bristol, Cunningham, DB, Ferrari, Frazer Nash, Gordini, Jaguar, Lancia, Nash-Healey, OSCA, Panhard, Pegaso, Porsche, Renault and Talbot. And that was without Mercedes-Benz, who were devoting their resources to preparing for a full-scale return to Grand Prix racing in 1954. In their absence, Ferrari seemed to have the strongest combination of cars and drivers, the three works entries including a one-off 375 MM with the 4.5-litre V12 Formula 1 engine for Ascari and Villoresi and a 4.1-litre 340 MM for Mike Hawthorn and Nino Farina, both cars with coupé bodywork. Jaguar's three works C-types had discarded the troublesome streamlining of 1952 while making two vital additions: three twin-choke Weber carburettors to improve torque and disc brakes developed by Dunlop's aviation division and manufactured by Girling to transform stopping power.

Alfa Romeo brought three 3.6-litre coupés, one to be shared by Fangio and his protégé Marimón. The Bristol Aeroplane Company made its debut with the aerodynamic two-litre 450, the sloping rear of its coupé body featuring distinctive twin tail fins. The new Nash-Healeys had long-tailed bodywork painted in the white and blue of the USA, while Donald Healey entered the first Austin Healeys, their four-cylinder 2.7-litre engines borrowed from the Austin A90 Atlantic. The three Lancia coupés, finished in dark blue and cream, now had superchargers to boost the output of their 2.6-litre engines, with a squad of experienced drivers including José Froilán González, Piero Taruffi and Louis Chiron. Aston Martin arrived with three shapely new DB3S roadsters, the three-litre six-cylinder engine now installed in a lightweight space-frame chassis.

Briggs Cunningham disembarked from the *Queen Mary* at Cherbourg, resplendent in a jaunty straw hat described by *Ouest-France* as *très à la mode en Floride*. Donning a trench coat against the chilly weather, he watched as his three cars were brought ashore: two C-4Rs, a coupé and a roadster from the previous year, accompanied by a new monster, a C-5R with open bodywork

featuring a wide radiator grille that had led the French to nickname it *le Requin* – ‘the shark’.

Two Pegasos arrived from Barcelona to make their debut, the sound of their engines disturbing those attending Sunday mass as they set off from the Hôtel Cotin in Le Grand-Lucé on a two-hour test drive. Wilfredo Ricart, Alfa Romeo’s chief designer in the late 1930s, had set up the company in 1946. Their first vehicles were trucks, but in 1951 they launched the Z-102, a two-seater with a supercharged 2.8-litre V8 engine that could propel it past 150mph, making it the world’s fastest production car. Among their drivers was Prince Paul von Metternich, the great-grandson of a former Chancellor of the Austrian Empire.

Porsche had come with their first machines designed specifically for racing: two mid-engined 1.5-litre cars built as roadsters but with hardtops fitted for Le Mans. Beginning a long stint as Porsche’s team manager was Huschke von Hanstein, who had made his Le Mans debut as the hapless co-driver of his then-girlfriend’s Adler in 1937. In the sub-1000cc classes, the dozen entries were all French, the most extraordinary of them a factory-entered 611cc Panhard X88, designed in collaboration with Monopole. Its slippery body shape was devised by Marcel Riffard, an aviation aerodynamicist responsible for successful racing monoplanes of the 1930s, the driver almost hidden behind a little curved plexiglass screen.

During practice, the Pegaso driver Juan Jover glanced off the barrier on the inside of the first curve after overtaking another car, spun across the track and smashed head-on into the opposite bank, suffering a triple fracture to one leg that had the surgeons at the Delagénère clinic considering amputation before deciding against it. Ricart promptly withdrew both cars from the race, announcing that he was taking them back to Spain for analysis. Prince Metternich never got to compete at Le Mans (although he would one day become president of the FIA), and neither did Pegaso. No more than a hundred examples of the Z-102 sports car were built before the need to concentrate on the success of the company’s commercial vehicles ended their production.

An extraordinary assembly of cars deserved an extraordinary audience and suitable weather, and it was said that spectator attendance during the week topped 300,000, the car parks and fields around the circuit containing 22,000 cars, 8,000 motorcycles, 5,000 bicycles and 3,000 tents. Also present were 350

police, 280 CRS personnel, 800 gendarmes, 250 course marshals, 150 nurses and 60 doctors. Under a hot sun and the gaze of the newly appointed US ambassador to France, Clarence Douglas Dillon, who had known Briggs Cunningham during their school days, and of a US Air Force commander, General Curtis E. Le May, who would become notorious during the Vietnam War, the first car away from the start was Phil Walters in *le Requin*, although he had been overhauled by Sidney Allard in his Cadillac-engined car by the time they came round again.

The battle between the American V8s was brief. After the Allard retired early with a broken differential mounting, the fight for the lead was between Moss's Jaguar and Villoresi's Ferrari, with Rolt sitting behind them, followed by Tom Cole in his Ferrari. But in the second hour Moss was forced to make two stops to clear a clogged fuel feed, dropping him halfway down the field. Rolt took up the challenge, overtaking Villoresi to snatch a lead in a duel that continued through most of the night, until the Ferrari was halted by clutch failure early in the morning. The Jaguar's only problem came when a stone broke the aeroscreen mounted behind its low windshield. Perhaps the extra rush of fresh air on his face explained why, when Hamilton came in at breakfast time to hand over to Rolt, he was feeling so good that he ordered another cognac with his coffee.

Cole's Ferrari crashed at Maison Blanche in the dawn mists, its driver killed three days after his thirty-first birthday as the car bounced in and out of a ditch and hit the side of a farm building. During the war, the legacy of a childhood illness had restricted him to a role as an ambulance driver with the US Army; at his family's request, he was buried on the Tuesday after the race at a cemetery in Le Mans, alongside the military dead.

The Jaguar drivers had discovered that the new disc brakes gave them a marked advantage over the drum-braked Ferraris, particularly at the end of the long straight, when they could go from 150 to 30mph in less than 300 yards, comfortably neutralising any deficit in top speed. Moss and Walker exploited the advantage as they rose from twenty-first to an eventual second place, four laps behind the winner, with Whitehead and Stewart in fourth. Rolt and Hamilton had become the first to average more than 100mph for the entire race as they covered 2,540 miles at 105mph, bettering Mercedes' record of the previous year by 9mph. As the pair accepted the crowd's applause,

exhausted and grimy but jubilant, they were still wearing the woollen sweaters that had kept them warm through the night.

For Briggs Cunningham's many admirers at Le Mans, this was the year in which his enthusiasm and investment seemed finally to be paying off. The C-5R was the fastest car on the Mulsanne straight, as the new speed gun proved when it clocked the car at 154.8mph, and Phil Walters and John Fitch brought it home in third place, behind the two Jaguars. A disaster for the Italian teams had left the paddock full of handsome Alfa Romeos, Ferraris and Lancias in various states of terminal distress. By comparison, eight of the top fourteen finishers were British, among the few setbacks being the retirements of all three Aston Martins and the fires that halted both Bristols.

Two weeks before the race, Queen Elizabeth II had been crowned in Westminster Abbey, in a ceremony watched on television or newsreel film around the world, coinciding with the announcement that Edmund Hillary and Tenzing Norgay, part of a British-led expedition, had become the first climbers to reach the 29,031ft summit of Mount Everest, succeeding where eight previous expeditions had failed in standing atop the world's highest peak, known to Tibetans as Qomolangma (Holy Mother). 'After Everest,' *L'Action Automobile* wrote, 'Great Britain has offered to its monarch another magnificent present.'

Around the course and in shops throughout the city, the ACO's interest in exploiting the race's increasing popularity and maximising its income was taking a new turn in 1954. At the suggestion of the artist Géo Ham, it was now possible to buy silk scarves, purses, handkerchiefs and flags featuring colourful Le Mans-themed illustrations as souvenirs of a visit to the 24 Hours, on sale in the kiosks of the new Village, for which several hectares of brushwood had been cleared behind the paddock.

In Maranello, the Scuderia Ferrari had prepared a trio of 375 Plus cars with open-cockpit Pinin Farina bodies, the capacity of their V12 engines raised to 4.9 litres. To confront them, Jaguar had again been testing a new model in secret. The D-type carried the familiar 3.4-litre straight-six engine in a new monocoque frame, the chassis constructed as a single unit in a lightweight magnesium alloy. Its bodywork, designed by Malcolm Sayer, was sleeker and possessed a feature that would define the car: a single prominent fin emerging

from the driver's headrest, intended to provide straight-line stability on the Mulsanne straight. During tests on a stretch of straight dual carriageway at Jabbeke in Belgium, it was said to have touched 180mph. While the new Ferrari gave an immediate impression of well-muscled power, the latest Jaguar simply looked like the future.

For William Lyons, Le Mans had become a priority. The week after the 1953 triumph, the first twenty-eight pages of *The Autocar* had been devoted to paid advertisements for the makers of the Jaguar's various components – brakes, spark plugs, body panels and so on – and for the company's many dealerships around Britain. He had seen victory in the 24 Hours translated directly into sales, and the D-type was designed for that one purpose.

Briggs Cunningham had not won Le Mans, but his exploits put his portrait on the cover of *Time* magazine, along with images of his racing cars and the headline 'Horsepower, endurance, sportsmanship'. For his fifth attempt, he brought two updated C-4R roadsters, with a complicated system of liquid cooling for the brakes, and a recently acquired Ferrari 375 MM roadster.

Aston Martin had put a 4.5-litre V12 engine into a lengthened DB3S chassis and called it a Lagonda while also bringing two actual DB3S roadsters – one supercharged version for Reg Parnell and Roy Salvadori, and an unblown car for the Texan driver Carroll Shelby, making his Le Mans debut, to share with the Belgian journalist Paul Frère. The Marquis Alfonso de Portago drove his own black two-litre Maserati from Modena to Le Mans, but a pair of works cars failed to arrive in time for scrutineering after their transporter broke down in the Alps. There were also four new Porsche 550 RS Spyders, the first examples of a run of about a hundred examples sold to a vast array of customers, including the actor James Dean.

As soon as Prince Bernhard of Lippe-Biesterfeld, the consort of Queen Juliana of the Netherlands and one of Enzo Ferrari's earliest and most enthusiastic customers, lowered the flag, the race conformed to the Jaguar versus Ferrari script. For a time the three big Ferraris ran together at the front, José Froilán González followed by Robert Manzon and Paolo Marzotto, challenged by Moss in the first of the Jaguars. While the Italian cars' assets included better acceleration out of the slow corners, their British rivals had the better balance and handling, particularly helpful when heavy rain began thirty minutes into the race. Moss recorded over 170mph in dry conditions on the measured kilometre before his engine started misfiring, which dropped

him down the field and continued to interrupt his progress until just before dawn, when his brakes failed completely at the end of the Mulsanne straight, sending him down the escape road at high speed and out of the race.

The rain came and went, and there were many accidents. Eric Thompson crumpled the rear of the Lagonda in the Esses during the early evening, needing a crowbar and a hammer to pull the metal clear of the wheel, and made it back to the pits only to retire: the tail-lights could not be repaired, darkness was coming and the officials were watching. Jean-Louis Rosier in his Talbot came across an Aston stationary across the track at Maison Blanche and was unable to avoid a collision in which the British car turned over, without injury to either driver. Prince Bira was lying fourth when he lost control of the Aston coupé he was sharing with Peter Collins at the same spot in the middle of the night, leaving the car in the ditch and himself with a broken nose. With less than two hours to go, Pierre Leygonie crunched his OSCA at both ends against the barriers before the Dunlop bridge, ran back to the pits to seek advice and returned to get the car going again, only for his teammate Lance Macklin to discover, after taking over and finishing the race, that they had been disqualified because the stewards considered that Leygonie had abandoned the car.

Of all the incidents, the true collector's item was provided by Count Innocente Baggio, sharing a Ferrari coupé supplied by Chinetti to Porfirio Rubirosa. 'Dodo' Baggio took the first stint, wearing a pale grey two-piece alpaca suit with silk shirt, black bow tie and a pair of formal leather shoes. On his fifth lap he put the big car into the ditch at Tertre Rouge, where it spun its wheels into the sand. Baggio took so long trying to dig it out that Rubirosa had time to make his way from the pits to lend encouragement, accompanied by the Hungarian-born actress Zsa Zsa Gabor, his latest companion. Stylishly got up in a trench coat and silk headscarf, she stood on the bank at Tertre Rouge and cast a sympathetic eye on Baggio's plight. Eventually, having ruined his shoes, he had to give up. The car was now as immobile as it had been on the Ferrari stand at the Geneva Motor Show a few weeks earlier, and its race was over.¹

The heart of the race was the duel between the González/Trintignant Ferrari and the D-type of Rolt and Hamilton, the only survivors of their respective teams by the time dawn broke over the circuit. The Jaguar had

spent ten minutes in the pits, changing plugs and cleaning a blocked fuel filter to overcome the sort of misfire that had hampered Moss, but the Ferrari was only a lap ahead by the time Rolt ran wide into the sand at Arnage while avoiding a slower car and made a call at the pits to straighten the bodywork. Then, as González attempted to take the Ferrari out of the pits for the last time, Italian hearts sank when his engine refused to fire. He got out and sat on the pit counter as the mechanics went to work. The car was stationary for seven and a half minutes but came to life in time to allow González to set off again, now only a minute and a half ahead of the Jaguar. When Hamilton pointed out to William Lyons that the Ferrari had been serviced by five mechanics rather than the specified two, and that it was they who had restarted the engine rather than the driver, also contrary to the regulations, Jaguar's founder declined to lodge a protest.

Chasing González amid thunderstorms with an hour to go, Rolt was finding the spray from the wet roads increasingly distracting. He was wearing goggles and indicated that he would have to stop to swap them for a visor. Uncertain over whether such a switch might contravene one of the ACO's more arcane regulations, the team decided to put Hamilton – who was relaxing with another glass of brandy – back in the car, fully visored and prepared for a last assault on the leader in the final hour. For thirty minutes he tried all he knew but could make no impression on the Ferrari. With half an hour left he eased off and settled for second place, but even that was almost denied him when, about to cross the line just after four o'clock, he found three Bristol coupés celebrating seventh, eighth and ninth places by greeting the chequered flag in line abreast, leaving the D-type with almost nowhere to go. Having narrowly avoided that potential disaster, he finished eighty-seven seconds behind the winner. The gap to the third-placed car, the Cunningham of Bill Spear and Sherwood Johnston, was nineteen laps.

When González stepped out of the winning Ferrari, the normally robust figure appeared completely drained. Later it emerged that he had felt ill throughout the race, increasingly so in the final stages, and had neither eaten nor slept during the entire twenty-four hours. Understandably, it fell to Trintignant, his partner, to give Prince Bernhard a lap of honour in the pouring rain at the end, in celebration of the first victory at Le Mans for a car entered and run by the official Scuderia Ferrari.

[I.](#) Porfirio Rubirosa continued to compete from time to time at congenial places like Sebring, Havana and Nassau, but he never got to drive at Le Mans again. He would die at the wheel of a Ferrari, crashing into a chestnut tree in the Bois de Boulogne while on his way home from a party at dawn on a summer morning in 1965.

CHAPTER 9

Death in the afternoon (1955)

Eleven-year-old Pierre Rouchy left home on the morning of 11 June 1955 with his parents and his brother and sister, Jacques and Hélène. They had tickets for the enclosure in front of the grandstands, opposite the southern end of the pits. It was a pleasant afternoon, one for shirtsleeves and summer dresses in a week of changeable weather. Pierre's father was a doctor in Écommoy, a small town of about 5,000 people a few kilometres south of Mulsanne on the road to Tours. The family had moved there from the Cantal, a region of the Auvergne, where Pierre had been born. The boy was now a boarder at the Lycée de Garçons du Mans, founded in 1599 on the site of an old monastery. A few days earlier he had received his first communion in the school's chapel, along with the rest of class 5A2. They had their picture taken: Pierre in the front row, bright-eyed, smiling, his dark hair neatly brushed.

In the silence before the flag fell, he saw the fifty-eight drivers run across to their cars and watched the jostling traffic jam of red, green, silver, blue and white machines as the noise of racing engines filled the air. He saw them come back at the end of the first lap – red-green-red-white-silver, almost too fast to register – and the next lap and the one after that, the order shuffling slightly each time. Eventually the gaps between the cars stretched a little, and some of the less committed spectators around him started wandering off to look for a beer or an ice cream, or to enjoy the fairground attractions behind the grandstands, part of the fun of a family outing to the 24 Hours of Le Mans.

Pierre was still in the enclosure at just after six o'clock, when the light was beginning to soften. Enthralled by the battle and wanting to get closer to the track, he asked his father if he could make his way forward through the crowd pressed up against the barrier, through all the fans in shirtsleeves and summer dresses, their heads covered against the sun by free paper hats advertising Pernod, Martini or Pastis 51.

As with the previous year, three works Ferraris confronted three works Jaguars. But this time Mercedes-Benz, having used 1954 to re-establish their dominance of Grand Prix racing, had returned with a three-car team. Fangio, their No. 1 driver, was the reigning world champion and now the team had added the 25-year-old Moss as his No. 2. Two of the cars arrived at Le Mans in one of the team's big blue trucks, which – unlike their pre-war transporters – carried no markings, perhaps out of a desire not to be conspicuous while travelling through France. The third arrived on the back of a special single-car transporter, a 100mph pick-up designed by Rudolf Uhlenhaut around the six-cylinder engine used in his Le Mans-winning cars of 1952.

To the experience of that win in the 24 Hours, Uhlenhaut had brought the lessons learned from building and running the cars that had won the 1954 Grand Prix world championship. The new 300SLR roadster was a masterpiece. Its three-litre straight-eight engine was canted over in order to reduce the frontal area and lower the centre of gravity, and it was packed with advanced features – fuel injection, desmodromic valves – in a light but very strong tubular frame. In May, Moss had won an epic victory in the Mille Miglia, averaging just under 100mph for ten hours around the roads of Italy.

For Le Mans, with the heavy braking zone at the end of the three-mile straight in mind, Uhlenhaut had gone back to the idea of the pedal-operated air brake that had been fitted to the roof of a spare coupé in 1952. On the new open-cockpit cars, the flap that lifted to interrupt the airflow was positioned on the rear bodywork, just behind the driver, and operated by a lever on the dashboard. The drivers discovered that it was useful elsewhere on the circuit, too, helping to lessen the wear on the drum brakes – the only area of technology in which Mercedes lagged behind Jaguar. Spectators were astonished the first time they saw one of the silver cars raising the device before sweeping past the pits towards the curve under the Dunlop bridge, where the driver no longer needed to touch the brake pedal at all.

Fangio and Moss were paired in the first car. Neither man cared for Le Mans, believing that the mixture of fast and slow cars with drivers of varying degrees of competence created an unappealingly high level of risk. Hans Herrmann was due to share the second car with the veteran Karl Kling until he crashed during practice for the Monaco Grand Prix a month earlier, suffering internal injuries. The place was offered to André Simon, a Parisian garage owner and former Gordini team driver who could call on the experience of three outings at Le Mans. For the third car, Neubauer had recruited the tall American John Fitch – third in the Cunningham C-5R two years earlier – and ‘Pierre Levegh’, the name under which Pierre Bouillin, now aged forty-nine, still raced.

The presence of Simon would please the French crowds, perhaps putting balm on unhealed wounds evident before the race when Rob Walker, who had competed at Le Mans in 1939, arrived at the circuit in his brand-new Mercedes 300SL gullwing coupé, the first to be exported to Britain, and saw a Frenchman spit on the car before apologising when he realised that it was carrying British registration plates. Perhaps the same could be said of the invitation to Levegh, although different motives were at work. This was a sentimental selection, based on Neubauer’s memory of the exhausted Frenchman’s disappointment three years earlier when his attempt to win the race single-handed failed in the twenty-third hour, ceding the victory to the Silver Arrows in front of his home crowd. It was said that, immediately after the 1952 race, he had promised the Frenchman a drive whenever Mercedes came back, although Neubauer’s first instinct had been to offer the vacant seat to Paul Frère, the Belgian journalist, who declined because he had already accepted an invitation from Aston Martin.

There was mourning in the Jaguar camp even as they arrived at Le Mans. John Lyons, the 25-year-old son of the founder and chairman, had left Coventry for Le Mans in one of the company’s sports saloons, travelling alone and bringing with him the trophy presented annually by *The Motor* for the best British performance in the race. When his ferry docked at Cherbourg, he was briefly delayed by customs officials who asked questions about the trophy before permitting him to continue. On the N13 near Valognes he crested a rise to be confronted by a bus carrying military personnel from the American base at Nacqueville. The two vehicles collided head-on. Lyons died before an ambulance could get him to hospital in Cherbourg.

The three works D-types had arrived by plane, emerging on the airfield behind the grandstands from the bulbous nose-doors of two Bristol Freighters after a flight from Birmingham interrupted by a refuelling stop at Deauville. Quartered in a garage on rue de Sarthe used in previous years by Chinetti, they would be crewed by Tony Rolt and Duncan Hamilton, by Don Beauman and Norman Dewis, and by Ivor Bueb and Mike Hawthorn. A fourth D-type appeared in the yellow of Belgium, driven by Jacques Swaters and Johnny Claes.

Jaguar's guests included 27-year-old Prince Sao Sai Long, the 43rd – and, as it turned out, the last – princely ruler of Kentung, one of the ancient Shan states of newly independent Burma. Guarded by a detachment of police officers from Scotland Yard, he had announced his intention to order ten D-types, should Jaguar win. Also present was Prince Ali Khan, the 43-year-old racehorse owner and jockey, a former husband of Rita Hayworth and lover of Joan Fontaine and Gene Tierney, reported by *Le Maine Libre* to be considering the possibility of taking part as a driver in 1956. Another kind of royalty was gathering at an event in a pavilion in the expanded Village: a contest between beauty queens representing seventeen towns, including Le Mans, the winner to be announced after a gala dinner and a show, including cabaret and striptease.

Half of the circuit, from Tertre Rouge to Maison Blanche, had been relaid, and the increasingly smooth surface of the circuit encouraged the participation of British designers, such as John Cooper and Colin Chapman, whose lightweight Cooper and Lotus cars had evolved to suit the asphalt runways and perimeter roads of decommissioned wartime airfields turned into circuits across the UK. They were joining a host of teams making the journey across the English Channel: Connaught, Bristol, Frazer Nash, Austin-Healey, MG, Triumph, Kieft and Arnott in addition to the Jaguars and Aston Martins. The Bristols now had open cockpits; in fact there was not a single coupé to be found anywhere in the 1955 entry.

Down among the DBs, Monopoles and other minnows in the 750cc class was a strange-looking Italian car with its right-hand wheels and the driver in one cigar-shaped pod and its left-hand wheels and the engine in another, the two hulls linked by a 'bridge' containing the radiator and supposedly carrying the obligatory passenger seat. Designed by Carlo Molino and built by Enrico Nardi to the order of Dr Mario Damonte, a Turin dentist, at least this

eccentric device maintained the reputation of Le Mans for encouraging technical originality.

On the day before the race, a column in *Ouest-France* praised the ACO's dedication to safety. 'The circuit of the 24 Hours is one of those offering greatest security to spectators. The metre-high wattle fencing protecting those at the most exposed places, and even those not so exposed, is carefully maintained and consolidated when necessary. There one finds the sign of a prudence and a wisdom, which are, with great foresight, the qualities of the founders of the ACO, whose successors continue to follow their example.' Not only safer for the spectators, the article continued, Le Mans was much less dangerous for the competitors. 'Since 1923, only six have died in the race, and two during practice. Compare that with the Carrera Panamericana, in which last year alone six were killed and three gravely injured, both drivers and spectators.' The point was made that most of the fatal accidents at Le Mans had occurred at Maison Blanche, one of five locations around the circuit at which a new system of lights, accompanied by audible warnings, had been installed to alert drivers to possible hazards.

The race was being televised live for the first time, not just to the 260,000 owners of TV sets in France but to Belgium, the Netherlands, Italy, Germany and Switzerland. When weather permitted, a helicopter would provide aerial shots. This was among the first joint projects by the members of the European Broadcasting Union, launched a year earlier and soon to be known as Eurovision. Among the commentators would be Jean-Albert Grégoire, who had brought front-wheel drive to Le Mans with his Tractas in the 1920s and who had just published a novel based on the race, titled *24 Heures au Mans*, in which a brilliant and innovative engineer attempted to win the race with a turbine-powered car, with a tragic denouement. The critic André Siegfried, a member of the Académie Française, had welcomed it as 'a novel of passion – with the difference that the passion is for an automobile...'

At the Hôtel Moderne, another hopeful film crew had installed itself, sent by Amalgamated British Pathé to plan scenes at Le Mans for an Anglo-French feature film whose locations would also include London, Chartres and Paris. The director was Terry Ashwood; his assistants included Serge Friedman, who would soon be working on Otto Preminger's *Bonjour Tristesse*. Interviewed by *Le Maine Libre*, they revealed that the cast would include the English actress Susan Stephen, a Rank starlet, and her husband, the actor Lawrence Ward.

Perhaps stimulated by the sight of the starting flag being lowered by his compatriot Count Aymo Maggi, one of the four men who had created the Mille Miglia in 1927, Eugenio Castellotti hared off into an immediate lead in the latest works Ferrari. The young Italian held his advantage through the first hour before being caught by Hawthorn's Jaguar and the Mercedes of Fangio, who had made his way through from a poor start (the story circulated that the world champion had got the gear lever stuck up his trouser leg when he jumped in). Once past the Ferrari, the Englishman and the Argentinian engaged in a duel that saw the lead changing hands several times over the next hour and a half, thrilling the crowd with the sight of the two strong, fast, equally matched cars going at each other until, towards the end of his thirty-fifth lap, just before half past six in the evening, Hawthorn began to prepare for his first pit stop.

Now a few seconds ahead of Fangio, before reaching the pits he would be lapping the two slower Mercedes of Kling and Levegh – both of whom had been maintaining a steady pace with an eye on profiting from the misfortunes of others – and then, for the fifth time, Lance Macklin's Austin-Healey 100S. Hawthorn took Kling before Indianapolis and Levegh just after Maison Blanche. As he raced towards the grandstand area at around 150mph, Macklin was ahead, holding his own top speed of around 120mph while observing the correct protocol for a slower car by keeping to the right-hand side of the track. Approaching the right-handed kink about 300 yards before the start of the pit lane, with Levegh and Fangio behind him, Hawthorn went past Macklin on the left-hand side of the road before pulling across to the right in order to stop at his pit.

Hawthorn was in flat-out racing mode. He was in a battle with the world champion, with the spur of upholding the honour of a British team in a fight against the German cars. Every split second counted. Tucking in behind the Austin-Healey and waiting before heading into the pit was out of the question. But when he braked after pulling across in front of the smaller car, Macklin – who had no prior indication of his intentions – reacted instantly. As he hit his own brakes, they locked. In his instinctive effort to avoid running into the back of the decelerating Jaguar, his car slewed over to the left, missing Hawthorn's car but veering towards the centre of the track.

Levegh was behind them, travelling at around 150mph. The road was narrow, not quite 23ft wide. There was room for two cars moving at speed,

with the unguarded pit lane to the right, but Macklin had veered towards the path of the Mercedes. The angle of the kink gave the Frenchman neither time nor space to take avoiding action. 'What I didn't want to do to Hawthorn,' Macklin would tell *L'Équipe*, 'Levegh couldn't avoid doing to me.'

The Mercedes hit the sloping tail of the Austin-Healey, which immediately acted as a ramp. The silver car launched itself, flying into the air over the green one. Macklin could feel the heat of its engine as it passed over his head. As the Mercedes came down, it smashed into the concrete abutment of a pedestrian tunnel. The impact ripped the car apart: its front axle, suspension and wheels tore through one section of the crowd, the engine through another. The rear half of the car landed on the 4ft earth bank separating the spectators from the track. The fuel tank exploded and the magnesium alloy of the bodywork caught fire; it was still smouldering an hour later.

As Hawthorn slowed, he saw or heard something and glanced to his left. The flying fragments of the dismembered Mercedes overtook him before landing among the crowd. Macklin's car, too, went spinning past, knocking over three occupants of the pit lane – a gendarme, a journalist and a commissaire – before coming to a halt. Fangio, who had been close behind Levegh, had squeezed through the narrow gap between the Austin-Healey and the Jaguar; he said later that his teammate had raised his hand in an attempt to warn him. Hawthorn overshot his pit but stopped and got out, running back to talk to his team, in evident distress. Lofty England, his team manager, told him to get back in and complete the lap. Reversing in the pit lane would mean disqualification.

Jacques Lelong, a leatherworker from Paris, was in the enclosure opposite the pits, attending the race with a group of friends for the sixth year in a row. He remembered the explosion, the sudden terror among his fellow spectators and the hiss made by the front wheel assembly of the Mercedes as it flew over his head, missing him by centimetres, before he was knocked down by a smaller piece of flying metal. One of his friends was less fortunate and lay dead. He saw another man, headless, his limbs jerking like those of a puppet. People were sitting, lying down, standing, bellowing with pain and terror. His thoughts flashed back to his war service in Alsace, when a bomb fell in the middle of his troop. But this was worse, he realised. Among the dead and wounded, there were children. He saw a little girl in a thin frock trampled by

the fleeing crowd. And he remembered the sound as the cars continued to roar past, with accordion music still coming through the loudspeakers.

The accident that took place at 6.26 p.m. killed eighty-three occupants of the enclosure, all but a handful of them dying on the spot. Levegh, thrown out as his car disintegrated, was also lying dead among them, the eighty-fourth fatality. The injured numbered more than 140. Amid the panic, a couple of priests wandered around, doing what they could. Among the helpers were 120 Boy Scouts, whose members – aged between fourteen and eighteen – pitched their tents inside the circuit each year to undertake sundry tasks. Now the youngest were deployed to stop people wandering into the area, while the older ones helped gendarmes and nurses to wrap the dead and injured in blankets and carry them away from where they had been struck down. Within twenty-five minutes, the site had been completely cleared.

In the face of demands from every direction to halt the race, Faroux was adamant that it should continue, with one overriding justification for a seemingly cold-hearted decision. Had he stopped it, more than 200,000 people would have begun trying to leave the circuit, many of them in their cars, through a small number of exits. Six ambulances were on duty at the circuit, and the extent of the potential delays in ferrying the injured to local hospitals through departing traffic jammed in all directions could only be imagined.

Bueb took over from a dazed and distressed Hawthorn, Moss replaced Fangio, and the two cars resumed their duel. But every one of those dead spectators, almost all of them French, had been killed by a piece of German technology. The resonances were inescapable and were surely considered in the urgent phone conversations held between Neubauer in the pits and Dr Fritz Nallinger, Mercedes' technical director, at the company's headquarters in Stuttgart. Neubauer told his boss that Faroux was extremely keen for them to continue.

As the hours passed and discussions continued, Fangio and Moss had gradually established a secure two-lap lead over Hawthorn and Bueb. It took another phone call from Le Mans to Stuttgart – from Artur Keser, the Mercedes team's press officer, to Dr Fritz Könecke, the company's chairman – before a decision to withdraw the team was made. It was after midnight when Uhlenhaut, who had been brought up in London and spoke perfect English, went along to the Jaguar pit to tell Lofty England of their decision. England declined to match the gesture. Soon Neubauer was informing Faroux of the

team's imminent withdrawal. Their two cars, lying first and third, were called in to retire at 1.45 a.m. Hawthorn, who was out of the cockpit at the time, remembered hearing them rev their engines before they were loaded into their lorries to begin the journey back to Germany, as if to show the world that the departure was not caused by mechanical weakness.

Neubauer, Uhlenhaut and the drivers returned to the Hôtel Grand Cerf in Alençon. Inside the squad, opinions diverged. Moss couldn't see what the withdrawal would achieve. It wouldn't bring back the dead. Fangio didn't object, although he told Moss he would have wanted to carry on had they not been in the lead. Fitch, who had witnessed mass death at close hand during his war service, told Neubauer that stopping was the right thing to do.

It rained during the night, before turning into a persistent drizzle. At dawn spectators began returning to the enclosures, where no sign of the carnage was visible. On a cold and wet morning Hawthorn and Bueb drove on to what was now a straightforward victory, leading home eighteen of the original sixty starters. Despite the disaster and the downpours, they had covered a record distance: 2,569 miles at an average of 107mph. Second, five laps behind, were Peter Collins and Paul Frère in their Aston Martin, with the Belgian-entered D-type completing the top three. Frère must have wondered what might have happened had he gone against his nature and accepted Neubauer's late invitation to partner Fitch.

Most of the drivers who raced on after the accident did so in ignorance of the true scale of the disaster. The details had been kept from them and they carried on doing their job. As for Hawthorn, he overcame his initial distress and was much criticised afterwards in the French press for appearing to greet the win with a smile as he took Bueb on the traditional victory parade in front of the grandstands, with a bottle of champagne wedged between them. No national anthem was played. Once the engines had been switched off, the crowd dispersed and the teams began to pack up amid an unfamiliar silence.

For the next fifty years and more, the events of the few seconds in which so many died would be exhaustively analysed. Footage and stills recording the aftermath were seen around the world. No film cameras had caught the start of the incident between the three cars, but the British Pathé team had captured the seconds in which various parts of the Mercedes flew into the

crowd, with Macklin careering into the bank and Hawthorn glancing across as he prepared to stop. Terry Ashwood would turn the weekend's footage into a documentary; his projected feature film would never be made.

Fantastical explanations for the disaster were not in short supply. The loudest claim, easily debunked but nevertheless persistent, was that nitromethane, an illegal performance booster, had been secreted within the tubes of the 300SLR's frame, explaining both the ferocity of the explosion and the team's decision to slip away during the night, before the surviving cars could be examined. But a distillation of the evidence – relative speeds, elapsed times, distances, drivers' capabilities and states of mind – suggests only one credible conclusion. In his desire to minimise any possible loss of time, Hawthorn pulled across towards his pit and braked too abruptly to allow Macklin to take safe avoiding action. The narrowness of the track at that point made it impossible for Levegh to avoid contact.

In an interview with *Le Maine Libre* at the Mercedes team's hotel after the race, Rudolf Uhlenhaut criticised the safety of the circuit in the vicinity of the pits. That stretch of track needed to be much wider, he said, in order to give drivers a chance to slow and stop at their pit without impeding other competitors. Safety for spectators in front of the grandstands, he added, needed to be much improved by increasing the height of the earth banks and the fencing, and by leaving more space between the track and the public. The team would return, he said, only if these changes were made.

It was by far the biggest disaster witnessed in motor sport. Some European nations – Germany, Switzerland, Spain – immediately cancelled all race meetings. In the case of the Swiss, the ban would be permanent. But on the weekend after the tragedy, the Mercedes team reconvened at Zandvoort, where Fangio, Moss and Kling would finish first, second and fourth in the Dutch Grand Prix, outclassing a field that also included Hawthorn in a Ferrari. Three weeks later they were filling the top three places, with Moss taking the victory in front of a cheering British crowd at Aintree. In the autumn the 300SLRs were brought out again to win the Tourist Trophy and the Targa Florio, thus amassing the points necessary to win the 1955 world sports car championship. And on that note the team withdrew from motor racing. It would be many years before they returned.

In France and around the world, the reaction was swift and often scathing. *Le Parisien Libéré*: 'Does anyone have the right to sacrifice so many lives to

speed?' *Le Figaro*: 'Once again the progress of the automobile makes demands of those who serve it, but the public deserves to be protected.' *L'Humanité*: 'Just two flimsy barriers between the catastrophe and the public.' *Franc-Tireur*: 'When the carnival turns into a morgue, doesn't the carousel which continues to turn take on the aspect of a *danse macabre*?' *Le Maine Libre* felt moved to point out that, although no one was obliged to believe in the mysterious science of stargazing, their astrologer had noted a particularly unfavourable alignment of the stars for that weekend and predicted 'a great risk of explosive accidents'. In *L'Équipe*, Pierre About was more judicious: 'At Le Mans, we thought we had organised progress, but then let ourselves be devoured by it. We need to go back to zero. One accident, no matter how dramatic, doesn't have the right to stop the march of time. But it confronts those in a position of responsibility, not just at one circuit but throughout the word of motor sport, with imperative reforms.'

On the other side of the Channel, the *Daily Sketch*, the *Daily Herald* and the *Daily Telegraph* expressed astonishment that the race had been allowed to continue. 'Only the Germans,' the *Daily Mirror* said, 'behaved with wisdom and dignity in this horrible affair.' The price of entertainment and progress, according to *The Times*, was now too high. The German press was similarly critical. 'This is a final warning for motor racing,' the *Frankfurter Allgemeine* wrote. In Munich, the *Süddeutsche Zeitung* mused on the history of the sport and wondered whether the time had come to ban it.

On the Monday morning in Le Mans, the lists of dead and injured posted outside the hospital and the town hall were still being scanned by those searching for news of missing relatives, friends, neighbours. More than a hundred local people had responded to an appeal for blood donations. At the site of the crash, the fencing was covered with wreaths and other floral tributes. All shops were shut between 10.30 a.m. and noon while a mass in memory of the dead was held at the great cathedral of Saint Julian in an atmosphere of high emotion, with many unable to gain entry to the packed nave and aisles.

The bereaved families heard the archbishop of Le Mans, Cardinal Georges Grente, read out a telegram sent to him by Pope Pius XII: 'Amid the mourning that has stricken your city, we assure you of our prayers for the unfortunate victims and charge you to transmit to families so painfully bereaved, as a

pledge of the divine comforts we invoke for them, our personal apostolic blessing.'

Cardinal Grente had also received a communication from the directors of Daimler-Benz, Mercedes' parent company, expressing their condolences to the grieving families and offering the sum of a million francs 'to be distributed between those who are in the greatest need'. At the Bundestag in Bonn, the West German parliament observed a minute's silence after their president, Theodor Heuss, had sent a message of condolences to his French opposite number, René Coty.

That Monday, Hawthorn and Lofty England were among those reporting to the Palais de Justice in Le Mans to answer questions in front of a court of inquiry convened by the French government. A day later it was Macklin's turn to appear before the examining judge, Michel Zadoc-Kahn. Back in London, Ivor Bueb gave an interview to the Agence France Press in which he claimed that the Mercedes must have been a dangerous car because of the way it disintegrated on impact, repeating a story he had heard that one of the German car's rear wheels had detached itself immediately before the accident.

The official inquiry, long and thorough, announced its conclusion in November, when Zadoc-Kahn declared that a combination of conditions and circumstances – not exactly random, but hard to foresee – had created a catastrophe for which no individual or organisation could be wholly blamed. Three years later Macklin read an account of the incident in Hawthorn's autobiography, *Challenge Me the Race*, and felt that he was being blamed for the crash. He sued for libel; the case was still unresolved when Hawthorn himself was killed in a road accident in January 1959, a few weeks after securing the Formula 1 world championship. He died at the wheel of his Jaguar 3.4-litre saloon, just after spotting his friend Rob Walker entering the same stretch of the A3 Guildford by-pass in his Mercedes 300SL.

The funeral of Pierre Levegh took place in the church of Saint-Honoré d'Eylau in central Paris on the Thursday after the race. Fangio, Moss, Fitch and Simon – his teammates for so short a time – were pallbearers, along with Louis Rosier and Philippe Étancelin. Throughout that week, other funerals would be held in towns and villages all over the Sarthe and beyond. Among them was that of Pierre Rouchy, the youngest victim of the tragedy. On the Wednesday after the race, his father, mother, sister and brother took his remains to be buried in the family tomb in Pléans, the village in the Cantal

where he had been born. Back in Écommoy, a requiem mass was held for the eleven-year-old in the town's fine church, attended by many local people and his fellow pupils from the Lycée. Twenty-six classmates expressed their feelings in a letter to his parents. 'We, his comrades, who appreciated his good humour and his gentle and friendly character, think of him with great regret,' they wrote. 'His professor is heartbroken to be no longer guiding the work of a pupil so gifted and acute. We feel powerless to console you.'

CHAPTER 10

Raising the Saltire (1956–59)

The calls for change had been loud and insistent, and they drew a response. While the official inquiry into the 1955 disaster was still in progress, the ACO was investing 350 million francs – about £400,000 (or roughly £11.2 million today) – in modifications to the circuit. Starting further back from the scene of the accident, they widened the track in the area of Indianapolis and flattened a pronounced hump in the stretch between Arnage and Maison Blanche. The right-hand kink before the start of the pits was straightened, and the widening extended all the way to the Dunlop bridge, where the radius of the sweeping right-hand curve was eased. Bulldozers flattened the old pits and grandstands and new ones were built further back, allowing for a proper pit lane, accessed via a long slip road. On the other side of the track, the safety barriers were raised and strengthened, and 70,000 cubic metres of earth were moved to provide terracing for 40,000 spectators in front of the grandstands, with the idea that a better view towards the back would prevent the crowd from pushing forward.

A completely new feature was a row of signalling pits built on the right-hand side of the track just after the Mulsanne corner, belatedly following the example set by John Duff in 1924. Each set of signallers could receive information on the progress of the race and their particular car by a radio link to the main pits, putting out signs for the drivers to read as they accelerated out of the 30mph corner rather than trying to decipher them at 150mph, in the

case of the fastest cars, while preparing to brake for the Dunlop curve. This would also reduce the amount of activity in the pit lane.

All this work – including a new public address system around the circuit – necessitated a loan of 300 million francs towards the total cost, which the ACO committee, with its network of high-level contacts in local banking and insurance, was well placed to raise. The improvements also meant pushing the race back in the calendar, to the last weekend of July. For the first and only time, the 24 Hours of Le Mans would clash with another of the country's gifts to world sport: the three-week national festival of the Tour de France.

In the build-up to the race, memories of the hideous scenes of the previous year were revived in debates over the value of racing. The journalist Jean-Claude Moulin examined the argument in *L'Automobile*, the monthly magazine he had co-founded in 1948. 'One cannot deny that the greater part of the development of the automobile, and what it is today, has been achieved through discoveries made on the track, thanks to the keen stimulus of competition,' he wrote. 'The track is a laboratory, but to be effective it must also be an advertising poster. That's how it is, and there's nothing we can do about it.'

Moulin also compared the cost of modifying the circuit with the insurance payouts following the crash, not yet entirely resolved. 'Since we're talking about numbers, specifically 350 million,' he wrote, 'how about the families of the victims? Insurance: 70 million francs from Mutuelle du Mans, 400 million from Lloyds of London, but still 40 cases to be settled. The sum could reach a billion. Let us hope that these matters will soon be concluded. The race, which is one of the world's greatest, must survive...'

The ACO's efforts to ensure a viable future included breaking away from the FIA's world championship for sports cars in order to impose their own technical regulations, with safety in mind. Prototypes would now be restricted to engines of no more than 2.5 litres, the same size as those of Formula 1 cars. To enter a production car, which could still have an engine of unlimited capacity, the manufacturer would have to swear that at least fifty examples had been or would be made. All cars would have to be fitted with full-width windscreens with a minimum height of 20cm and a width of 100cm, and centre-seaters would be effectively eliminated by the imposition of a 120cm minimum width for both seats, those of the driver and the notional passenger. There would be no more leeway for freakish designs like the twin-boom Nardi,

which had been blown off the track by the sidewash from a larger and faster competitor somewhere along the Mulsanne straight on its second appearance the previous year.

As a reminder of the race's founding principles, efficiency would also be given a stronger emphasis. There would now be a minimum of thirty-four laps between refuelling stops, up from thirty-two the previous year, and only 120 litres of fuel could be added at each stop. No driver could remain at the wheel for more than seventy-two laps – roughly six hours for the fastest cars – in a single stint. 'A return to a saner formula,' *Le Maine Libre* called it.

And there was another new rule: no women drivers. In 1954, noting the absence of female competitors, the ACO had promised to hold a race of two or three hours' duration for women only in 1956. 'You have two years in which to train your wife or girlfriend,' *Motor Sport* advised its readers. At first the idea was postponed, but then, earlier in 1956, the Austrian-born driver Annie Bousquet had left the track during the 12 Hours of Reims, driving the Porsche Spyder she was sharing with the American heiress Isabelle Haskell. The car turned over and Bousquet, aged thirty-one, died of a broken neck. After the events of the previous year, the ACO could not risk the adverse publicity from a tragedy involving a woman driver occurring in their much higher-profile event. For the next fifteen years, Le Mans would be without the successors to Odette Siko and Dorothy Stanley-Turner.

The number of available starting places had been reduced from sixty to fifty-two, but only forty-nine cars would be there when the field set off. Optimists pointed out that the three current leaders of the F1 drivers' world championship – Peter Collins, Juan Manuel Fangio and Jean Behra – would be taking part, along with Stirling Moss, Mike Hawthorn and the Marquis de Portago, although Fangio withdrew at the last minute, pleading ill health.

Another significant absentee was Briggs Cunningham. The American millionaire had come up against the iron rule of the US Internal Revenue Service: you could charge losses against your tax bill for five years, after which no further deductions would be allowed. Cunningham was also returning to his first love, with his sights now focused on a campaign to win the America's Cup series for 12-metre yachts, the sailing world's equivalent of the 24 Hours of Le Mans, to be held in 1958 at Newport, Rhode Island. He would be the helmsman, but this time he would be just one of a group of wealthy men who

had formed a consortium of financial backers. 'Yacht racing,' he once explained, 'is like taking a cold shower while tearing up hundred-dollar bills.'

A loophole in the rules had attracted Aston Martin and Jaguar, who persuaded the organisers that the DB3S and D-type were production models and thus able to run bigger engines than the prototypes. One of the three-litre Astons was crewed by Stirling Moss and Peter Collins, while a prototype called the DBR1, the successor to the DB3S, with an engine of 2.5 litres, would be driven by the young Tony Brooks and the veteran Reg Parnell. The five D-type Jaguars were allowed to run their 3.4-litre engines, detuned to meet the new fuel consumption requirements. Three of the D-types represented the factory, led by Hawthorn and Bueb. A fourth was the Équipe Nationale Belge's car, placed third in 1955.

The fifth car, entered by a team named Ecurie Ecosse, was painted blue with a white stripe across the nose. Those were the colours of the Saltire, the flag of St Andrew, the patron saint of Scotland, where the team had been founded five years earlier by David Murray, an Edinburgh accountant, with the idea of providing an umbrella organisation under which selected Scottish owner-drivers could have their cars prepared for racing. Their base was the Murchiston Garage, to which Murray enticed Walter 'Wilkie' Wilkinson, the son of a London printer who had built a reputation as a tuning wizard. For their Le Mans debut, their new D-type – quartered away from the works team at the Hôtel Ricardeau in Loué, 20 kilometres west of the city – would be crewed by two Scots, Ron Flockhart and Ninian Sanderson, both on their second visit to Le Mans.

Ferrari had built a run of three cars to meet the race's new prototype specifications, combining a new chassis with an old 2.5-litre four-cylinder Formula 1 engine. As usual, the two works Gordinis arrived at the last minute, driven in haste from Paris by Gordini himself and the Brazilian Nano da Silva Ramos. Anthony Lago had brought two new Talbots with engines from Maserati 250F Grand Prix cars. Two 1.5-litre Porsche 550A coupés were entered by the factory, each car with a small coloured light on its roof for night-time identification and with the young German nobleman Count Wolfgang von Trips among the drivers. Their opposition included three examples of Colin Chapman's latest creation, the Lotus 11, with low windcheating bodies designed by the aerodynamicist Frank Costin.

A large crowd turned up for the first practice session at nine o'clock on the Wednesday night, some 20,000 thronging the new spectator areas around the grandstands. The Jaguars were first out while the Ferrari team were busy adjusting the height of their seats so that the drivers could see over the new regulation-height windscreens. A prize of 100,000 francs was offered to the first driver to top an average of 200kph (125mph) for a single lap, but no one could get close. Hawthorn made the fastest lap in 4min 17.3sec, averaging 118mph, ahead of the Aston of Moss and Collins and the Ferrari shared by Portago and Duncan Hamilton, both just over ten seconds slower. There was some astonishment when Von Trips went round in 4min 40sec in the Porsche, eleven seconds better than the fastest Lotus.

The race started as it had ended a year earlier, with the circuit veiled in a thin drizzle, and further unhappy echoes blighted the opening stages. All seemed well as Moss got his Aston past the seven cars higher up the line to lead the field under the Dunlop bridge, but the D-type's bigger engine enabled Hawthorn to pull ahead by the time they returned to complete the first lap. The rain had made the resurfaced stretches of the track particularly slippery, and at the start of the third lap the conditions caught out Frère, who spun his D-type at the Esses and hit the bank, slewing back across the track. Fairman, close behind in the third of the works D-types, managed to avoid contact but spun and was hit by Portago's Ferrari. Frère tried to continue but stopped for good on the Mulsanne straight, while Fairman made it back to the pits, only to discover that his car was too badly damaged to carry on. Portago's oil cooler was split and his engine seized before he could reach the Ferrari pit. Three leading cars were out within the first ten minutes.

Worse was to follow. Louis Héry, a garage owner from Nantes who had finished nineteenth and last on his Le Mans debut a year earlier, was five laps into his race when he discovered that the widening of the track at Maison Blanche had not removed its sting. His 750cc Monopole-Panhard left the road and somersaulted over a wall. Landing in a garden, it broke in two and caught fire. Héry was thrown out, suffering head, chest and arm injuries. Unconscious, he was taken by ambulance to the Delagénère clinic, where he was pronounced dead a few hours later. His mother, wife, daughter and son were in the grandstands.

Soon Hawthorn, in the last remaining works D-type, would be in the pits for the first of many stops to investigate a persistent misfire, relegating him to

the tail of the field. Not until late in the evening would the problem with the fuel-injection system be rectified, condemning the defending champions to a race-long climb back into the top ten. By the end of the first hour the Ecurie Ecosse team were astonished to find their lone car in the lead, with Flockhart fending off attacks from Moss's Aston.

The two British cars would swap the lead through the night, but the closeness of the battle was largely an illusion. Under the direction of Murray and Wilkinson, the blue Jaguar was proving far more economical, able to post competitive lap times even while its two disciplined drivers were running well under their rev limit. To stay in touch, Moss and Collins needed to use every drop of petrol available in each thirty-four-lap stint, sometimes switching off the engine to coast and even slipstreaming the faster of the Porsches to save fuel. By breakfast time on Sunday they knew that the only way they could win was if the Jaguar hit trouble. In the end it was Moss and Collins who lost time when second gear went missing.

Accidents had continued to punctuate the race. Jean Lucas crashed the Talbot-Maserati at the Esses and Alain de Changy rolled his Ferrari at the Mulsanne corner when a brake locked. Peter Walker lost control of his Aston Martin near the Dunlop bridge, hit the bank and overturned, suffering injuries that persuaded the 1951 winner to restrict the rest of his driving career to one more race before retiring to breed chinchillas. The same curve claimed Pierre Meyrat's Ferrari and Helm Glöckler's Porsche, and a chain-driven Stanguellini collided heavily with a Monopole coupé at Maison Blanche, putting them both out. In one of the Lotus 11s, Cliff Allison, the son of a Westmoreland garage owner, had hit a dog close to the Café des Hunaudières during the night, killing the animal and smashing the car's radiator.

By the time the Scottish Jaguar crossed the line just after four o'clock, a lap ahead of Moss and Collins and seven laps ahead of the surviving works Ferrari of Olivier Gendebien and Maurice Trintignant, only fourteen cars were still running. After covering 2,507 miles at an average of 104mph, Flockhart, Sanderson and Ecurie Ecosse were hailed as the authors, in the words of the *Glasgow Herald*, of 'the greatest success in Scottish motor racing history'.

The paper's motoring correspondent recalled that Murray had made an appeal to the public earlier in the year for funds to continue their racing programme, without much response. Now they had won the world's most famous sports car race, beating an array of factory entries with two powerfully

dissimilar characters at the wheel, each true to the stereotype of his home town. Sanderson, a Glaswegian, was a 31-year-old practical joker, perhaps not to everyone's taste; he had been a Fleet Air Arm pilot before going into the motor trade. Flockhart, thirty-three, a qualified civil engineer from Dalkeith, on the River Esk outside Edinburgh, displayed a more restrained temperament.

'Le Mans was still Le Mans,' Denis Jenkinson wrote in *Motor Sport*, 'but this year it was not a great Le Mans; it had a mediocre air about it.' Perhaps that was unsurprising, as the event recovered from its trauma. Given the wet weather in the first half of the race, the many accidents were only to be expected; crucially, none had involved spectators.

The twenty-fifth edition of the 24 Hours of Le Mans would be the first to take place without Charles Faroux, who died at his home in Neuilly-sur-Seine on 9 February 1957, aged eighty-four. As the race director, a function he also performed at the Monaco Grand Prix between 1929 and 1955, he had helped to maintain the integrity of the race by balancing the need for innovation with a respect for the founding principles and adherence to both the letter and the spirit of the complex rules. His replacement was Jacques Loste, a 51-year-old Parisian who had been the director of the magazine *L'Argus de l'Automobile et des Locomotions*.

The unpopular regulations restricting the engine size of prototypes and the height of windscreens were abandoned after only a year and once again the race, now conforming to FIA's rules, could rejoin the calendar of the world sports car championship. By the time they reached Le Mans, Ferrari had won in Argentina and Italy, Maserati had been victorious at Sebring and Aston Martin had won in Germany. All sent full teams of their latest machines to Le Mans. There were no works Jaguars – a fire at their Coventry factory had destroyed many cars, including several D-types being converted to road-going specification for US customers – but Ecurie Ecosse returned with Ron Flockhart and Ivor Bueb, each a winner in the previous two years, crewing one of their two cars, while Duncan Hamilton shared his own entry with a skinny, bespectacled young American named Masten Gregory.

The two-litre Ferrari of a local man, Fernand Tavano, was the first in the queue for scrutineering, but there was serious concern over the arrival of other

Italian machines. The River Po had burst its banks and massive flooding, particularly in Piedmont, had swept away roads and bridges. While the new Porsche Spyders were lining up to be checked by officials, there was doubt whether the Ferrari and Maserati teams would make it across the Alps. But they did, and on Wednesday night Fangio was hurtling round the track in a 4.5-litre Maserati 450S to set a new unofficial lap record in 3min 58sec, at an average of 127mph: the first lap at Le Mans in under four minutes and over 200kph, even though Nello Ugolini, the team manager, was telling reporters that Jean Behra and André Simon were the car's designated drivers and insisting that the world champion was only attending as a reserve.

The 450S had its origins in an engine designed several years earlier to Formula 1 regulations which had changed before it could be built. But in 1956, at the behest of an American enthusiast named Tony Parravano, the engine was redesigned and turned into the heart of a sports-racing car potentially powerful enough to challenge all rivals. Parravano, who had been born in Naples, disappeared to Mexico soon after initiating the project, on the run from the American tax authorities. But the 450S would provide the factory team with a credible championship contender, beginning the season by leading in Buenos Aires until its clutch let Fangio and Moss down and then winning at Sebring in the hands of Fangio and Behra.

For Moss and Harry Schell, there appeared to be something even better in store at Le Mans. Moss had appreciated the brute power of the open 450S but, not untypically, thought he had dreamed up a way of improving it. The Englishman was midway through a successful Formula 1 season with the Vanwall team, whose cars had benefited from aerodynamic bodies designed by Frank Costin. A few months earlier, he had broken records at the Montlhéry autodrome in a Costin-bodied Lotus 11 with a Perspex bubble canopy and a smooth undertray designed to improve the airflow above and beneath the car at sustained high speeds.

Moss's relationship with Maserati had begun with his purchase of a 250F single-seater in 1954 and continued with a successful season in the works Grand Prix and sports cars in 1956. He had raced at Le Mans often enough to appreciate the enhanced performance provided by slippery bodywork on the long flat-out stretches of the circuit. Why not, he suggested, commission Costin to create a Maserati Le Mans special, a one-off 450S to which the

aerodynamicist could bring all the knowledge and experience of an arcane and still largely unexplored field?

Five weeks ahead of the race, Maserati agreed and Costin set to work. Like the Vanwall and Lotus bodies, the Maserati coupé was created without recourse to a wind tunnel. Costin had begun his career with the De Havilland aircraft company; his designs had to be executed to aircraft standards of precision. When he delivered his drawings to Maserati, they were complete in every particular. But with only two weeks to go before the race, Maserati gave the job of fabrication not to Medardo Fantuzzi, their usual body-builder, who was already overloaded with work, but to the Zagato coachbuilding company in Milan.

Amazement greeted the 450S coupé as it was rolled out of the transporter in time for scrutineering on the Wednesday before the race. Its shape looked practically biomorphic: low-slung, swooping, predatory. This was a car to delight schoolboys. Here, surely, was one of the great Le Mans specials. Unfortunately, it took very little time to establish that its drivers would not be sharing that enthusiasm. Not only did the aerodynamics not provide the promised advantage, but any time spent in its cockpit quickly became an ordeal. Hot air and fumes from the big V8 engine were ducted into the cabin, rather than away from it. In wet conditions during the Thursday night practice session, the windscreen constantly misted up and the airflow lifted the wipers off the windscreen, rendering them useless.

The failure of the wipers to work effectively may have been Costin's fault; it was not a problem he'd faced on a Vanwall or a Lotus 11. But cutting the air inlet and outlet vents to the wrong sizes and in the wrong places, and neglecting to include the specified aerodynamic undertray, were Zagato's responsibility. It had been Moss's idea, so he and Schell were now stuck with a streamlined coupé that was actually slower than the open version. It was, Moss admitted, 'a terrible piece of equipment... a genuinely bad car'. He was relieved when it lasted no longer than three hours after the fifty-four-car field had set off on Saturday afternoon, going out with transmission trouble, as did Behra's open-cockpit version. Nevertheless, in that short time both cars had led the race after the Ferraris of Hawthorn and Collins went out with broken pistons.

The failure of the Italian cars left Flockhart and Bueb to inherit a lead they would never be in danger of losing. Running behind them in second place were Brooks and Noel Cunningham-Reid in the Aston Martin DBR1, coping

with a top-speed deficit to the D-type of about 15mph. At about half past two in the morning, Cunningham-Reid came in with the car intermittently sticking in fourth gear. Brooks took over but was looking down at the troublesome gear lever when he should have been thinking about the approach to Tertre Rouge, missed his braking point and ran wide into the sandbank. The car turned upside down, coming to a halt half in and half out of the sand, with the driver trapped beneath the part of the inverted bodywork sticking out into the track.

Unable to get himself free, and smelling petrol leaking from a ruptured pipe, Brooks was relieved when the next car to negotiate the corner, Maglioli's Porsche, was unable to avoid swiping the tail of the DBR1, knocking it away from its helpless driver and enabling him to crawl to safety. Taken to hospital, he was treated for the consequences of his lucky escape: multiple cuts and heavy bruising and a large wound in one leg. Four weeks later, still feeling bruised and battered, he would be helped from the cockpit of his Vanwall at Aintree, enabling Moss to take over and making the two of them the first British drivers to win the British Grand Prix in a British car.

With the last real threat removed, Flockhart and Bueb made the best of Sunday's fine weather to take the chequered flag, having covered a record 2,732 miles at an average of 113mph, with a margin of eight laps over the second Ecurie Ecosse car, a D-type driven by Ninian Sanderson and Jock Lawrence. A French-entered D-type in the colours of Équipe Los Amigos, driven by Jean Lucas and 'Mary' (Jean-Marie Brussin), finished third. Five of the first six cars were Jaguars, and an equally outstanding weekend for Team Lotus ended with wins in the 1100cc and 750cc categories, plus the top two places in the Index of Performance.

The eclipse of France was completed by the ignominious final appearances at Le Mans of a pair of famous names. Two Talbots with Maserati engines had been financed by an heir to the Dubonnet drinks company. Only one started, coming to a halt a metre or two off the starting line when the prop shaft broke and the car was wheeled away. The two Gordinis went out in the early stages with engine failure, their exit finally bringing down the curtain on an association between *Le Sorcier* and Le Mans that had begun in 1935 and would now never be crowned with a longed-for victory.

The Maserati 450S Zagato Le Mans Berlinetta would not be seen again at the Sarthe, or at any other circuit. In the way such things were then handled,

it was left to rot in a corner of the Maserati factory in Modena. A year later the abandoned bits were spotted by an American customer named Byron Staver, whose wealth came from his family's iron foundry in Minnesota. Thinking it would make an interesting road car, he commissioned a reconstruction. A new engine, a new frame extended by 20cm, bodywork modified by Fantuzzi, conversion to left-hand drive, a more adequately appointed cockpit, a radiator grille with a Maserati trident badge, a set of functioning windscreen wipers and a coat of glossy black paint set Staver back \$8,500. The result would certainly have impressed his neighbours in Minneapolis. Later it passed through the hands of other collectors in Ohio, New York, Bavaria, Tennessee, Texas and Connecticut, eventually restored to its original red livery and regarded with at least some of the respect so painfully withheld on its misbegotten public debut.

To the young Americans who came to Europe to race cars in the 1950s, Le Mans offered the magic that Ernest Hemingway, F. Scott Fitzgerald and Ezra Pound found in Montparnasse in the 1920s. One after another they arrived, drawn by the lure of a more exotic and sophisticated world: Phil Hill, Richie Ginther and Dan Gurney from Southern California, Carroll Shelby from Texas, Masten Gregory from Kansas City. Four of those five would win Le Mans between 1958 and 1967, and the fifth would also leave a mark on the race. All five graduated to Formula 1; three would become Grand Prix winners and one would become the United States' first world champion.

The first of the new generation was Hill, born in Miami in 1927 to a family who relocated to Santa Monica in Southern California before he was three years old. At four he began piano lessons, and classical music would remain one of his great loves. His obsession with automobiles also began early, with his mother's Marmon Speedster and a 1918 Packard town car belonging to an aunt who let him drive it and then, when he was twelve, bought him his own Model T Ford. He was sent to the Hollywood Military Academy, where he met a grandson of William Randolph Hearst, on the private roads of whose country estate he could refine his driving technique.

Absence from school with childhood illnesses had turned him into a withdrawn, introverted boy who often suffered physical symptoms associated with nervous tension, but working with cars seemed to give him a purpose and

a direction. He began helping local hot-rodders prepare their machines for races on dry lakes, but was soon devouring books about European racing.

Rejecting his parents' idea of a suitable career, he was finding a life he would make his own. At twenty, with \$200 borrowed from his aunt and the proceeds from selling his own V8 Ford, he bought an MG TC at International Motors in Beverly Hills, beginning his competition career at a rally in Palos Verdes. In 1949, International Motors paid for him to spend a year in England, studying the methods used at the Jaguar, Rolls-Royce and MG factories; he returned home in possession not just of precious knowledge but of a brand-new Jaguar XK120, which he was soon racing at Palm Springs, Pebble Beach and Pikes Peak.

In 1952 he paid Luigi Chinetti \$6,000 for the Ferrari in which Jean Larivière had been killed at Le Mans, but when he made his first trip to compete at Le Mans the following year it was with a 1.4-litre OSCA co-driven with Fred Wacker, the president of the Sports Car Club of America. They had completed eighty laps by the time the little car's transmission failed.

In that year's Carrera Panamericana, he and Richie Ginther, a friend from International Motors days, narrowly escaped disaster when their Ferrari tumbled down a mountainside, after which treatment for an ulcer took Hill away from competition for a while. On his return, Chinetti's influence secured his first works Ferrari drive at Le Mans in 1955. He was about to take over from Umberto Maglioli for his first stint when the catastrophe occurred opposite the pits. After Ferrari's pit manager prevented him from getting a close look at the scene, he was soon in the car and on the track. But the spirit had gone from the race and, he said, 'nobody really cared' when the clutch failed while they were holding third place.

It was through Chinetti again that he was teamed with the Belgian driver Olivier Gendebien for his second works Ferrari drive, at the 1956 Buenos Aires 1000km, where they finished second to Moss's Maserati. Afterwards the Scuderia's team manager, Eraldo Sculati, offered him a place in the full works squad. At Le Mans he was winding his watch when the flag dropped but recovered and was in fourth place in a car shared with André Simon when the rear axle broke in the middle of the night.

For 1957 he would be a junior member of Ferrari's nine-strong squad of drivers. By the time they got to Le Mans, Castellotti and de Portago were gone, Castellotti dying while testing at Monza, de Portago in an accident that

killed nine spectators and put an end to the Mille Miglia. For the 24 Hours, Hill was paired with Peter Collins, but their engine failed after only two laps. At the start of the 1958 season the partnership had much better luck, winning the Buenos Aires 1000km and the 12 Hours of Sebring in a 250 Testa Rossa. This new car was designed by Carlo Chiti, who had joined Ferrari the previous year, around a modified version of the three-litre V12 engine from the 250GT. But for Le Mans they were split up, Collins joining his friend Hawthorn while Hill was reunited with Gendebien. Three years Hill's senior, the Belgian aristocrat had worked in the family business in what was then the Belgian Congo before returning to Europe to take up rallying. He was fast and steady, earning the admiration of Enzo Ferrari, who described him as 'a gentleman who never forgets that *noblesse oblige* and who, when he is at the wheel, translates this code of behaviour into an elegant and discerning forcefulness'.

On the morning of the race, spectators could read a long and lyrical letter to the organisers, published in *Le Maine Libre*, from a young man serving with the French army in Algeria. 'This is a soldier who is addressing you,' Jean-Claude Godet wrote, 'a young man who has not forgotten your magnificent race. And as the start approaches, the fever takes hold, as in the other years when I've watched the race; but time passes, and I'm under the colours, in the beautiful province of France that is Algeria. I'm sorry that I can't be there this year, but my thoughts and my heart are with you... with everyone, the organisers, drivers and mechanics, with you, the spectators who live for the same ideal, the same love: the automobile...' The soldier was writing from a country whose bloody war of independence, now in its fifth year, had just brought down France's Fourth Republic, paving the way for Charles de Gaulle's return to the presidency.

Moss made his usual jet-heeled getaway in an Aston Martin DBR1, setting a pace that the Ferraris were unable to match – not least because they were still refusing to bow to the obvious and adopt disc brakes. His lead had stretched to almost half a lap by the time his engine blew on the Mulsanne straight with just over two hours gone. A torrential rainstorm then covered the circuit, lasting until nine o'clock in the evening before giving way to intermittent drizzle. As the pace slowed, Hawthorn was falling back with clutch problems, allowing Hill to take a lead that he and Gendebien would cede only briefly at around midnight to the Hamilton/Bueb Jaguar.

There were many accidents, the worst of them occurring soon after the rain arrived when Jean-Marie Brussin, an industrial diamond manufacturer from the Isère, lost control of the blue D-type he had bought from a Jaguar garage in Lyon. He was thrown out of the cockpit as the car hit the barrier near the Dunlop bridge and died instantly. The young American driver Bruce Kessler, sharing Chinetti's North American Racing Team Ferrari with Gurney, was the first to arrive at the scene. Realising that he would be unable to avoid a collision with the stranded Jaguar, he raised himself up in the cockpit in order to be thrown out. It was a wise move: he landed heavily and would need treatment for a collapsed lung and severe bruising, but the car he left behind exploded into a ball of flame and burned itself out. Others following immediately in his wake managed to avoid the wreckage; they included Duncan Hamilton, who was leaving the pits and accelerating hard around the long bend when a quick-thinking spectator threw his hat in front of the Jaguar as a warning of the danger.

All three works Astons were out by breakfast time, and Hamilton crashed heavily while in second place, the D-type somersaulting when confronted by a stationary car at Arnage during a brief thunderstorm just before noon. There was no other challenge to the first drivers from the United States and Belgium to win the 24 Hours of Le Mans. No fewer than fifteen wrecked cars lay around the circuit as Hill and Gendebien enjoyed the victory parade, finishing twelve laps ahead of the old Aston DB3S of the Whitehead brothers, Peter and Graham. Behind them came three Porsches, collecting two class wins. 'It's possibly time that Porsche stopped playing it safe and had a go for an outright win at Le Mans,' Denis Jenkinson wrote in *Motor Sport*, with notable prescience.

Chosen by John Wyer as a place for his Aston Martin team to prepare in tranquillity, the twenty-two-room Hôtel de France in La Chartre-sur-le-Loir – a village, as Stirling Moss put it, 'on the road to nowhere in particular' – offered the necessary facilities in a peaceful environment far from the hubbub of Le Mans. In 1959, for the seventh year in a row, the local people welcomed the arrival of the Astons as three DBR1/300 cars, in their distinctive sage-green paintwork, were lined up alongside the ivy-covered side wall of the hotel. The mechanics from Feltham undertook the final preparations under

the gaze of local schoolchildren hoping for a glimpse of the drivers – Moss, Jack Fairman, Carroll Shelby, Roy Salvadori, Paul Frère and Maurice Trintignant.

Aston Martin had first appeared at Le Mans in 1928, fifteen years after the company had been founded in London by Lionel Martin and Robert Bamford (the first half of the marque's name had been bestowed in honour of a win for Martin's modified Singer at the Aston hill climb in Oxfordshire). They had already been saved twice from financial collapse, first in 1920 by some of the £11 million inherited by the racing driver Louis Zborowski from his mother, an American heiress, and then in 1924, by Dorothea, Lady Charnwood, who made her 23-year-old son a director. Lionel Martin was no longer involved when the team arrived at Le Mans for the first time.

Under David Brown's post-war ownership, the company was merged with Lagonda. Eventually the road cars would be built in Newport Pagnell, although the racing department was still at Feltham, in west London. The first of the DBR1 series had made its appearance in 1956, designed by Ted Cutting, who had started life as an apprentice draughtsman. Moss's domination of the opening two hours in 1958 had left no doubt of the car's inherent qualities.

In 1959 the firm had also taken on a new challenge, launching their first Formula 1 campaign, with Salvadori and Shelby as drivers. It would become apparent that the front-engined DBR4 had been designed to fight the last war rather than the current one, but the extent of that failure was not yet clear as Wyer led another attempt to win Le Mans, beginning with a trip on the last Sunday in April to the inaugural Le Mans test days. Nineteen cars were present, including two DBR1s for Fairman and Shelby and two works Ferrari Testa Rossas – now with disc brakes – for Hill and Allison. In six and a half hours of running, Hill put up the fastest time in 3min 59sec. Fairman was eighteen seconds slower, which seemed a less than cheering omen.

John Wyer was a tall, patrician figure with what could be a distant manner. After an engineering apprenticeship at Sunbeam and war service, he joined the Monaco garage in Watford, owned by the Welsh sportsman Dudley Folland, getting his first experience of racing around the clock with Folland's Aston Martin at Spa in 1948 and at Le Mans in 1949. In 1950 he observed Aston Martin's renewed commitment to racing, applied to David Brown for the job of team manager and was hired. 'John Wyer rightly believes that discipline is the foundation of racing success,' Sammy Davis would write, 'and

woe betide anyone who fails in his duty.' From Moss's perspective, the 50-year-old Aston team manager created a very pleasant environment in which to go about the business of racing: 'For one thing, John Wyer certainly knew all the best restaurants and hotels.' Hence the choice of the Hôtel de France, whose restaurant boasted a Michelin star.

Wyer delegated the hands-on race management to Reg Parnell, the son of a Derby garage owner and Britain's most successful racing driver in the immediate post-war years. He had driven for Aston Martin at Le Mans in 1952 and was invited to step in as temporary team manager when burns suffered during a fire in the pits put Wyer out of action. When Wyer returned, Parnell stayed to work alongside him, their different styles – one a strategist, the other a tactician – a good match.

David Brown arrived at Le Mans with his wife, having travelled up from Cannes. His sights were always fixed on Le Mans; like Jaguar's William Lyons, he understood the race's unique publicity value. But for others in the team the real ambition was to win the 1959 world sports car championship, a five-race series. Ferrari had won at Sebring, Porsche had taken the Targa Florio and Aston had won the Nürburgring 1000km for the third year in a row, again with a virtuoso performance from Moss. Honours were even among the title contenders, with Le Mans to be followed by the Tourist Trophy at Goodwood. But as far as victories at Le Mans were concerned, Ferrari's three wins to Aston Martin's none made the Italian cars firm favourites.

In his pre-race briefing, Reg Parnell issued his drivers with strict instructions. They were given a rev limit: 6,000rpm for the first twelve to eighteen hours, 6,100 if absolutely necessary, 6,200 if getting the benefit of a faster car's slipstream. Each car had a target lap time: 4min 10sec for Moss and Fairman, 4min 20sec for Salvadori and Shelby, 4min 22sec for Frère and Trintignant. Lastly, they were given a staggered pit-stop schedule. The strategy was clear. Moss would make the pace, with the intention of luring the Ferraris into the sort of scrap that would strain engines and wear brakes. In a classic Le Mans deployment, the other two cars would avoid dogfights while staying close enough to the leaders to benefit from their misadventures.

They were helped by a degree of friction within the Italian camp. Romolo Tavoni, once Enzo Ferrari's private secretary and now a clipboard-wielding team manager, was having trouble with one of his drivers. In the absence of Tony Brooks, who was leading Ferrari's Grand Prix team and had been given

the weekend off, Jean Behra stepped up his efforts to be regarded as the Scuderia's No. 1 driver, ahead of the Englishman. Tavoni had attempted to impose a sensible limit of 7,500rpm on the twelve-cylinder engines, but Behra's refusal to obey – the tell-tale needle on his rev counter was seen to read 8,900rpm at the end of one practice session – was copied by his teammates, leading to a complete breakdown of discipline.

The pugnacious Behra did not help himself at the start of the race, when Moss made his usual fast getaway in warm sunshine while the Niçois was stalling his car twice before getting going. At the end of the first lap Moss was still in the lead, chased by the Ferraris of Gendebien and Nano da Silva Ramos, while Behra was down in fifteenth place. At least that gave the spectators something to enjoy for the next hour as he carved his way through the field, going past the other two Astons and his own teammates before snatching the lead from Moss. Knowing Behra's volatile temperament and its probable effect on his car, Moss declined to retaliate as the Ferrari pulled out a lead of more than half a minute, the two of them having already lapped the rest of the field.

The Ferrari shared by da Silva Ramos and Cliff Allison was the first to retire, its gearbox broken. Gendebien and Hill were delayed by a carburation problem. Soon Behra and Gurney hit trouble: calling in first for repairs to their lights, then when the gear lever broke off in the American driver's hand and had to be replaced with a piece of metal tubing, and finally when the engine expired in the dead of night, the tell-tale needle on the rev counter showing that it had been pushed above 9,000rpm. By that time the Astons were one car down, Moss's early efforts to stretch the Ferraris contributing to the broken valve that, in a necessary sacrifice, eliminated him and Fairman.¹

That left a fight between the last remaining works Testa Rossa and the two Astons, but it barely seemed to be a contest at all. Hill and Gendebien had the lead and the pace to increase their advantage to four laps until, in mid-morning and with victory seemingly secure, their engine started to overheat. Water was poured in at every stop, but a few minutes before noon a head gasket blew and the attempt to repeat the previous year's triumph was over. Now the Astons could reap the benefit of their careful strategy by spending the last four hours cruising to the chequered flag without challenge, Salvadori

and Shelby finishing a lap ahead of Frère and Trintignant in a one-two that made David Brown's dreams come true.

The Englishman and the American, aged thirty-seven and thirty-six respectively, made a good team, not least because, both being 6ft 2in tall, they required no adjustments in the cockpit during a changeover. For Salvadori, born in Essex to an Italian family of ice-cream makers, Le Mans provided the first and last big international win of a long career encompassing F1, sports and saloon cars. He celebrated it with his girlfriend, Sue Hindmarsh, the daughter of Johnny Hindmarsh, the winner at the Sarthe in 1935, who had been killed in a plane crash when she was six years old.

Shelby had taken a couple of nitroglycerin pills before the race, the consequence of a childhood heart murmur which returned in his late twenties. The son of a mail carrier in rural East Texas, a test pilot and flying instructor during the war, in peacetime he worked on oil wells and started a poultry farm that went bankrupt. In 1952 he took up racing and two years later he met Wyer, who gave him a first Aston Martin drive at Sebring and another at Le Mans. He had turned down several offers from Ferrari through the years. 'I never wanted to drive for Mr Ferrari,' he said, 'because, if you talk to the drivers, he puts them against each other and I don't want to be in that environment.' As with Salvadori, the win in 1959 was the high point of his racing career.

Ferrari's consolation was a sweep of the 3rd, 4th, 5th and 6th places for the privately entered 250GTs, led – albeit twenty-five laps behind the second Aston – by two gentleman drivers who chose to race the Équipe Nationale Belge entry under aliases: 'Beurlys', otherwise known Jean Blaton, an industrialist and part-time jazz guitarist, and 'Eldé', in real life Léon Dernier, who had begun his competition career with Peugeot saloons. They had dominated the FIA's new Grand Touring category, for cars of which at least 100 examples had been manufactured within a year, opening up Le Mans once more to the kind of cars its founders had in mind.

¹ Romolo Tavoni's problems with Jean Behra came to a head two weeks later, during the French Grand Prix at Reims. When Behra brought his car in to retire with engine failure, Tavoni accused him of blowing it up on purpose. Behra's response was to raise the temperature of an already blisteringly hot day by punching the team manager on the chin. Two days later, a difficult meeting in Enzo Ferrari's office ended with the Frenchman being sacked. Three weeks after that, during a sports car race at the AVUS

track in Berlin, Behra went over the lip of the forty-three-degree banking in his Porsche, hit a flagpole and was killed outright. He was thirty-eight, and Fangio had probably summed him up best when he remarked, during their time as Maserati teammates in 1957, that he was 'too brave'.

CHAPTER 11

Prancing horses (1960–64)

In the spring of 1960, the 16-year-old Jean-Philippe Smet released his first 45, 'T'aimer follement', under the name Johnny Hallyday. A barely competent imitation of early American rock 'n' roll, it announced the birth of the French teenager, whose ravenous enthusiasm for blue jeans, T-shirts and ponytails was destined to drown the world of the *bal musette*, with its accordions and decorous attire, in a tidal wave of Coca-Cola. The cultural compass had swung decisively to the USA, so it was with extra pleasure that Le Mans welcomed back Briggs Cunningham, who had achieved his parallel ambition of winning the 1958 Americas Cup with his yacht *Columbia* (by a 4-0 margin over the British challenger, *Sceptre*) and was ready to take up the challenge of Le Mans again. This time he arrived not with cars of his own manufacture but with a two-pronged attack of cars in white with a double blue stripe: three Chevrolet Corvettes and a single prototype Jaguar.

The Corvettes, with their rumbling 4.6-litre V8s, were guaranteed to be crowd-pleasers. After several years in which the three giant US automobile manufacturers – Ford, Chrysler and General Motors – had observed a mutual agreement to avoid an expensive arms race by staying out of racing, they were entered with the tacit support of GM. But they were handicapped by the rule stipulating that their weight had to be no more than 5 per cent below that of the production model, leaving the Corvettes a massive 600lb heavier than the Ferrari 250GTs.

As a result of his good relationship with John Gordon Benett, Jaguar's US vice-president, Cunningham had also been entrusted with the E2A, the

handsome link between the obsolescent D-type racer and the forthcoming E-type sports car. It would be driven by Walt Hansgen, the successor to Phil Walters as Cunningham's No. 1 driver, and Dan Gurney, who had left the Scuderia Ferrari after a single year. At the test day in April, its alloy body still unpainted, and lacking the headrest fin that would be added in time for the race, the unannounced appearance of the Jaguar prototype created a sensation, even though its engine, a three-litre version of the familiar XK unit, blew up after only ninety minutes. During practice Gurney was involved in an accident at Maison Blanche, where a Ferrari 250GT cut across the Jaguar's path. The Ferrari somersaulted and hit two trees; its driver, Frederico 'Fritz' d'Orey, a 22-year-old from São Paulo, suffered head injuries so severe that he would spend eight months in hospital, mostly in a coma, and never race again.

Cunningham was not the only American invader. Also in the US colours were four cars with the name Camoradi on their flanks: three Maseratis and another Corvette. The deceptively exotic-sounding name was derived from Casner Motor Racing Division, a new enterprise founded by Lloyd 'Lucky' Casner, a 30-year-old New Yorker with a gift for salesmanship. After giving up his job as an airline co-pilot to sell used Cadillacs, he had raced an MG before launching his team. When asked about the name, he would sometimes claim that an Italian millionaire named Camoradi was his backer.

The fictitious Italian connection became more real in 1959, when he visited Modena to talk to Omer Orsi, Maserati's president, who had terminated all official racing activities in order to balance the books and was now willing to build cars for racing only if there was the guarantee of selling them to private customers. But his chief designer, Giulio Alfieri, was still full of ideas, and the latest brainwave was a front-engined sports car aimed at Italy's popular two-litre series. Attempting to match the new lightweight rear-engined cars from British manufacturers, Alfieri had come up with a novel and very light frame built of more than 200 small-diameter steel tubes welded together, carefully triangulated to take stress, cloaked in very functional bodywork. The lattice of tubes, visible to anyone peering inside the cockpit, gave the car the nickname by which it would become universally known: the Birdcage. When Stirling Moss pronounced his approval after giving the prototype a run-out at the Modena autodrome and a more thorough test at the Nürburgring, it was obvious that the car's innate virtues belied its curious looks.

The project began to make economic sense when five two-litre Tipo 60s were built for Italian customers, at \$9,000 apiece, alongside six orders from individual American customers for a version with the four-cylinder engine enlarged to a 2.9-litre engine, known as the Tipo 61 and priced at \$10,800 each. Casner tested one before placing an order for two of the bigger-engined cars to be run in the 1960 world championship series, with technical support from the factory. His team's financial backing, acquired with the assistance of Fred Gamble, a former Madison Avenue advertising man, was provided mostly by the Goodyear tyre company of Akron, Ohio. After being persuaded by Gamble that here was a chance to enhance their image through challenging the dominance of Firestone in the US and Dunlop in Europe, Goodyear came up with \$50,000 for the season.

Moss joined the team in time to win the first post-revolutionary Cuban Grand Prix in Havana and, with Gurney, the Nürburgring 1000km. That success sent them to Le Mans in good spirits, although Moss would not be available, having asked for a one-off fee of \$5,000, which Casner said was too much. Whatever the truth of that claim, a crash during practice for the Belgian Grand Prix a week before Le Mans left the Englishman with two broken legs and three crushed vertebrae. He would not reappear in any racing car until August.

One of the Camoradi T61s was something special. To be driven by Masten Gregory and Chuck Daigh, it featured a lengthened tail and a completely different frontal treatment aimed at reducing the impact of a new FIA regulation requiring minimum dimensions of the windscreen to be 250mm (just under 10in) in height and 1,000mm (about 3ft 4in) wide. There was no stipulation about its angle, and the windscreen of the Streamliner, as it became known, began at the line of the front axle, sloping gradually back to its full height in an effort to cut wind resistance.

No one was happy about the new rule (or about another increasing the mandatory volume of luggage space, resulting in ugly box-line excrescences on the rear decks of some cars). The drivers, accustomed to looking over low windscreens, now had to peer through a surface that would quickly become encrusted with dust and dead insects. Some drivers would try to overcome the problem by sitting on cushions to raise their eyeline. The look of the thing was less important, but the aesthetic effect was equally unpleasant. Particularly badly disfigured were the two Aston Martin DBR1s, one of them entered by

Border Reivers, a Scottish team, for the pairing of Salvadori and the young Scottish sheep farmer Jim Clark. Their national rivals, Ecurie Ecosse, brought an old D-type for its swan song at the Sarthe.

After Clark led off the start, Gregory was the first to complete the opening lap, the streamlined Birdcage having overtaken no fewer than eighteen cars along the three miles of the Mulsanne straight. Topping 170mph and averaging just over 120mph, the Maserati led the race for almost two hours, only to be foiled when it would not restart after its first pit stop, just before the arrival of rain that would last all night. The mechanics spent over an hour repairing the starter motor, dropping the car to the tail of the field and handing the lead to the Ferrari of Gendebien and Frère, with their teammates Ginther and Willy Mairesse in close company.

Gregory and Daigh had made two laps back on the leader by the time the engine blew up on the straight just before midnight. The streamliner had made a sufficiently powerful impression for the governing body to ban such dramatically raked windscreens for the following year, ensuring that it would not be seen again at Le Mans. The other two Birdcages were already long gone, maintaining Maserati's reputation for unreliability at Le Mans.

Cunningham's experimental Jaguar, its front hastily repaired after the collision in practice, came round in third place at the end of the first lap and ran inside the top ten after an early stop to change a fuel-injection pipe. A head gasket blew at around midnight, leaving observers to wonder whether its respectable performance presaged a full-scale return to racing for the Coventry firm with a fully developed successor to the D-type, or whether the E2A was the harbinger of a move in a different direction.

Ferrari had suffered an early embarrassment. The two cars that, on paper, appeared to have the strongest chance of overall victory ran out of fuel within a lap of each other. The first of their drivers to find himself stranded out on the circuit, during his thirty-third lap, was Wolfgang von Trips, followed a lap later by Ludovico Scarfiotti. Both were due in to refuel at the end of the lap. Either someone had got the sums wrong or the drivers had been racing harder than expected. As a result, neither Phil Hill nor Pedro Rodríguez got the chance to drive. When Gendebien, a more conservative driver, in turn brought the third Testa Rossa into the pits, it was – in his co-driver Frère's words – 'coughing and spluttering', also on the brink of running dry. Unlike their

teammates, they were able to fill up and continue, now assuming the lead of the race.

As the rain ceased at dawn and the sun came up on a beautiful day, the crowd of a quarter of a million took their places for the final hours, with Gendebien and Frère in full command, ahead of the NART Testa Rossa of the 18-year-old Ricardo Rodríguez and André Pilette, with the Border Reivers Aston Martin in third place. The result brought victory for the Scuderia Ferrari in the 1960 world sports car championship, ahead of Porsche and Maserati. For Frère, it was the finest win of a career that might have seen many others had he chosen, five years earlier, to accept Ferrari's offer of a full-time contract. But he had decided back then not to abandon his career as a motoring journalist and move his young family to Italy, and he never regretted it.

There would be no Biennial Cup in 1961, marking the end of the competition that had originally given the race its meaning but whose significance had long since faded. Another change was the temporary removal of the scrutineering from Le Mans itself to the paddock within the permanent circuit. Drivers could now be at the wheel for sixty consecutive laps rather than fifty-two, although not permitted to exceed an aggregate of fourteen hours' driving. The maximum permitted time for a final lap was cut from thirty to twenty minutes. There was no longer a restriction on how often a car could be refilled with petrol, but oil and water could be replenished only every twenty-five laps. A computerised timing system, built by IBM, was being tested, in the hope of easing the burden on the cadre of timekeepers. A further change since the last race was the French government's response to long-term inflation through the introduction of the *nouveau franc* (NF), each worth 100 of the old ones; the prizes now offered 50,000 NF (about £4,000) to the winner of the overall classification, 30,000 to the winner of the Index of Thermal Efficiency and 25,000 to the winner of the Index of Performance.

Ferrari arrived at Le Mans in the middle of a very good year, dominating the new 1.5-litre Formula 1 with Carlo Chiti's rear-engined cars, whose twin nostrils gave them an indelible nickname: 'Sharknose'. The sports cars were showing the influence of the Grand Prix machines, with similar noses and chopped-off rear bodywork for the front-engined TR61, the latest

development of the V12 Testa Rossa line, and the new rear-engined Dino 246 SP, designed around a 2.4-litre V6 engine. Phil Hill and Olivier Gendebien had fallen out with each other at the Targa Florio, where the Belgian refused to take the first stint in their 246 SP, reasoning that if one driver broke down or crashed out in the wild Sicilian countryside, the other would be able to transfer to another of the team's other cars, which was exactly what happened: when Hill crashed, the Belgian hopped into von Trips's car and won the race. But Enzo Ferrari, recognising the value of their partnership, persuaded them to share a car again at Le Mans, even though all communication between the two would now take place through Romolo Tavoni. They were in one TR61, with a second in the hands of another Belgian, Willy Mairesse, and a newcomer, the tall English engineer Mike Parkes.

A third TR61 was loaned to Luigi Chinetti's North American Racing Team for the gifted Rodríguez brothers, to be run by Tavoni and the factory's mechanics – to the frustration of the Mexican family, who wanted their Pedro and Ricardo, now aged twenty-one and nineteen, to be free to go all-out for victory rather than be tied to a team strategy. Negotiations between Enzo Ferrari and Tavoni on one side and Chinetti and Pedro Sr, the brothers' highly enthusiastic father, on the other resulted in what would prove to be a fragile accord.

Maserati, having made a small profit from buyers of the front-engined four-cylinder Birdcages, decided to take the next step. In Modena, Giulio Alfieri had created the Tipo 63, a development of the Birdcage design philosophy but with a three-litre V12 engine located behind the driver. Briggs Cunningham, Lucky Casner and Count Giovanni Volpi of Scuderia Serenissima each ordered one example. Before they got to Le Mans, however, Casner had lost his Goodyear sponsorship and Maserati, waiting for him to pay his bills, had run out of patience. His Tipo 63 was handed on to Cunningham, who took both his cars to the Sarthe.

For the first time since 1950 there was no Jaguar at Le Mans. The E-type had been launched at the Geneva and New York motor shows in April, creating a sensation, and had won its first race at Oulton Park in the hands of Graham Hill. But it was not yet ready to follow the path of its predecessors to the Sarthe. The Corvettes, too, had not returned. Instead at the front of the line of starters were three special Aston Martin DB4 GTs with voluptuously aggressive bodies by Zagato. They would be up against seven Ferrari 250GTs,

one of them a short-wheelbase model painted in Rob Walker's colours for Stirling Moss and Graham Hill and to be run by Chinetti's NART crew; a year earlier, Moss had won the Tourist Trophy at Goodwood in a similar car. There was also Chiti's latest development of the 250GT, with a three-litre Testa Rossa engine and a more streamlined aluminium body by the company now known as Pininfarina: the prototype of the legendary GTO.

At noon on race day, in light drizzle, fifty-five cars were lined up in front of their respective pits, the smallest at the far end, nearest to the Dunlop bridge, before being completely reversed in time for the start, the air of general chaos exacerbated by the arrival of a parade of 400 riders on Vespa scooters from all over Europe. By four o'clock the rain had stopped and the road was dry, but raincoats and hats were still being worn by many in the crowd of around 300,000 when, for the second consecutive year, Jim Clark was first under the Dunlop bridge in the Border Reivers Aston Martin DBR1.

That opening of the first lap was the only moment of the race not to be controlled by one Ferrari or another. Ginther in the rear-engined car quickly took the lead from the Aston, only to be deposed by Pedro Rodríguez in the NART TR61, with Phil Hill in the similar works car joining them and Parkes catching up so quickly after such a poor start that he overtook more than forty cars on the first lap. It was soon evident that the Mexican brothers were having nothing to do with any suggestion that the works cars should take precedence. As they swapped the lead with Hill and Gendebien, Tavoni became increasingly exasperated by their disinclination to obey signals requesting them to slow down. The two cars duelled through the evening and the night, at one point racing side by side down the finishing straight, but the matter was effectively settled at around seven o'clock in the morning when the NART entry developed a misfire, rectified by the factory mechanics in a pit stop to change plugs, coil and condenser that seemed to most observers to take an unusually long time.

The brothers re-emerged in fourth place, having lost five laps, but were soon circulating once again at a pace which suggested they would be in a position to challenge the leaders again. But after giving the spectators something to get excited about as they worked their way back to second place, their Ferrari's engine could no longer sustain the demands being made on it and a broken piston ended their race with two hours remaining, leaving Concepción Rodríguez, the matriarch of the clan, in tears.

Their departure allowed Hill and Gendebien to cruise to victory, three laps ahead of the sister car of Parkes and Mairesse and sixteen laps in front of the 250GT of Pierre Noblet and Jean Guichet. Ferrari's win allowed the team to retain the world sports car championship, but all had not been entirely serene in the Scuderia's pit as the race entered its final stage. With an hour to go, as Hill brought the leading car in for a last refuelling stop, the distrust between its two drivers reappeared. Gendebien was on the pit counter, helmeted and gloved, expecting to take over for the final run to the flag, only to discover that Hill refused to leave the cockpit. There were harsh words, but it was the American who drove the car to the finish, setting a new record distance of 2,781 miles at an average of 115.9mph, both men putting on a show of comradeship as they accepted the bouquets and waved to the crowd from the podium.

Third place would have gone to a different 250GT had Moss and Graham Hill not retired just before dawn, halted by a broken fan blade slicing through a water pipe. This would be Moss's tenth and last appearance in the 24 Hours; since 1951 he had finished second twice and been withdrawn while leading in the Mercedes with Fangio in 1955, and his speed had often been used to lure his team's rivals to destruction. It was a race he never won and never learned to love.

What was a Grand Touring car? According to a *Motor Sport* editorial published the month before the 1962 24 Hours of Le Mans, it could be defined as a streamlined two-seater coupé, 'not unduly noisy but not meek... capable of devouring countries as lesser machines deal with counties'. It would be required to carry two people in comfort over distances of 700 or even 800 miles per day at an average of a mile a minute with only one stop for refuelling, and with space for the luggage that would be taken by porters on arrival at five-star hotels in Rome, Vienna or Cannes.

At the end of a 2,800-mile test on the Continent, the magazine concluded that the new E-type Jaguar did not qualify, mostly because its fourteen-gallon fuel tank required three refills per day. But with its smooth shape, evoking the D-type's triumphs of the 1950s while unmistakably breathing the air of a new decade, and its claimed 150mph top speed, the new Jaguar offered remarkable value for £2,123 in the UK, including purchase tax – half the price of an Aston

Martin DB4 GT (£4,401), and a third of the cost of an imported Ferrari 250GT (£6,273). These were the cars the FIA had in mind when its sporting commission decided that the 1962 championship would be for series-production Grand Touring cars of engine capacities up to four litres and an overall weight not below 95 per cent of the catalogue model, replacing purpose-built sports-racing cars and competing for an International Championship of Manufacturers.

Sensing a threat to the spectacle provided by the prototypes, the ACO announced the creation of an 'experimental' category. When they were joined by the organisers of the 12 Hours of Sebring, Targa Florio and the Nürburgring 1000km, they were able to announce the creation of their own championship, the *Challenge Mondial de Vitesse et d'Endurance*, forcing the FIA to accept that the two series would be run in parallel, in the knowledge that the 'experimental' cars would be faster than the GTs. A great deal of confusion over what was meant by 'experimental' did not prevent the arrival of a varied and interesting field, even if the number of classes, eight for 'experimental' and six for GT, with thirty-one starters in the first category and twenty-four in the second, tested the spectators' powers of concentration.

Ferrari were the clear favourites for a third win in a row, despite the internecine warfare that soured the celebrations of their highly successful 1961 season, which had begun when a number of senior staff on the management and technical side walked out in protest against the increasing role taken by Laura Ferrari, Enzo Ferrari's wife, in the company's day-to-day operations. In came a new team manager, Eugenio Dragoni, an imperious figure with a strong bias towards the team's young Italian drivers, and a new chief designer, the young engineer Mauro Forghieri, who had followed his father into the company. While the turbulence exerted a catastrophic effect on the Formula 1 team, the success of the previous seasons in sports cars had been sustained with early victories at Sebring and the Nürburgring, and at the test days at Le Mans in April a new car made its appearance: the last front-engined Testa Rossa, with a four-litre V12 taken from the Superamerica road car. To be known as the 330TRI, this would be driven, despite their differences, by Hill and Gendebien. There would be two rear-engined cars: a 2.6-litre V8 for Giancarlo Baghetti and Ludovico Scarfiotti and a 2.4-litre V6 for the Rodríguez brothers.

Making their first appearance at Le Mans were four privately entered 250GTOs, the ultimate version of Ferrari's three-litre Grand Touring car, now designed almost entirely for racing, and a fifth example entered by the factory with the same sort of four-litre engine as the 330TRI, for Mike Parkes and Lorenzo Bandini. An even more unusual Ferrari was entered by Count Volpi for his Scuderia Serenissima: a 250GT rebuilt with a strange new body by Piero Drogo, a low-nose, extended-cabin design that led to the car being nicknamed 'the breadvan'. This was Volpi's response to Enzo Ferrari, who, knowing that the Venetian aristocrat had encouraged Chiti and the others in their rebellion, refused to sell him a proper GTO.

After disappointments with their rear-engined V12 cars, Maserati believed they had found a new answer with a front-engined gullwing-door coupé called the Tipo 151, designed by Giulio Alfieri with Gian Paolo Dallara, a young graduate in aeronautical engineering, using a 4-litre V8 engine derived from the old 450S. Encouragement and sponsorship for the project came from Briggs Cunningham, who entered two examples at Le Mans, painted in his familiar colours. A third car, finished in red, was entered by Maserati's distributor in France, Colonel John Simone.

After winning the Index of Performance five times with their DB-Panhard's, Charles Deutsch and René Bonnet – partners since 1938 – had split up over Bonnet's desire to accept an offer from Renault. Deutsch, the brilliant aerodynamicist, stayed with Panhard, building little coupés now known as CDs. His erstwhile collaborator opened a new factory outside Paris to build René Bonnet coupés and spyders using Renault engines prepared by Amédée Gordini. In the categories concentrating on low weight and fuel efficiency, they had further competition from Simca, who had returned in partnership with the Austrian-Italian designer Carlo Abarth, running coupés in the experimental class, including one for the 1948 Olympic downhill ski champion Henri Oreiller.

It was Lotus who seemed to pose the biggest threat to the French hold on the Index of Performance. At the Nürburgring four weeks earlier, Jim Clark had caused a stir by leading the opening laps of the 1000km in a new prototype, the Lotus 23, with a 1.5-litre Ford engine. The combination of the car's agility and the Scot's virtuosity on a wet track frightened Ferraris twice its size until Clark was overcome by a combination of a recalcitrant gearbox and fumes from a broken exhaust. Team Lotus arrived at Le Mans with a plan

devised by Colin Chapman in an attempt to repeat their Index of Performance victory of 1957. He put Clark and Lotus's other current F1 driver, Trevor Taylor, in a 23 with a one-litre engine, while the UDT-Laystall team entered a similar car with a 750cc engine.

From their first appearance in front of the scrutineers, on the Tuesday morning, the Lotus 23s were in trouble. After overcoming various official objections to their turning circle, ground clearance and fuel tank capacity, one barrier to inclusion remained. Whereas their front wheels were attached by four studs, the rear wheels had six. So whether the mandatory spare wheel had four or six stud-holes, there would be two wheels that it could not be used to replace: a contravention of a rule going back forty years. Chapman's solution was to have rear wheels and hubs with four studs flown out from England. But when the cars were re-presented to the scrutineers at 6 p.m. on the Wednesday, as requested, the team were told that because the driven wheels now had only four studs, they must by definition be weaker than before, and were therefore unacceptable. A great deal of heated argument was not enough to change the verdict and Chapman promptly vowed never to return to Le Mans.

The start of the thirtieth edition of the race, in brilliant sunshine, was prefaced by the appearance of a British-built gas-turbine saloon, the Rover T4, making a parade lap in front of the vast crowd as an indication of the ACO's continuing interest in the evolution of automotive technology. After the opening exchanges between Graham Hill in the new Aston Martin Project 212, the Ferraris of Gendebien and Pedro Rodríguez and the Maserati of Dick Thompson, the race settled down to another instalment of the contest between Gendebien and Phil Hill and the Mexican brothers, the two Ferraris exchanging the lead through the night according to their pit-stop schedule and Hill breaking the record set by Mike Hawthorn in 1957 with a lap in 3min 57.3sec, an average of 126mph. The Aston retired with a broken oil pipe soon after dark and the Maseratis, after showing impressive speed, gradually fell away until the last of them retired at dawn. The early morning also saw the Rodríguez brothers' car go out with a broken final drive.!

The engine of 'the breadvan', the not-quite-GTO, failed at breakfast time. Two authentic GTOs inherited the second and third places, one driven by Pierre Noblet and Jean Guichet and the other by 'Beurlys' and 'Eldé'. A class

win for the 1.3-litre Lotus Elite of David Hobbs and Frank Gardner gave Colin Chapman a measure of satisfaction before he shook the dust of the Sarthe from his shoes for the last time, while, in the Index of Performance, Deutsch won the battle over Bonnet.

The winning Ferrari covered 331 laps, or 2,766 miles, at 115.2mph on the way to completing a grand slam in the four-event sports car championship. This was compensation for a season-long debacle in Formula 1, at the end of which Phil Hill – the world champion of 1961, and now three times a winner at Le Mans – said goodbye to the Scuderia. At thirty-five, he was destined never to win another Grand Prix or a fourth Le Mans. But he had no regrets about leaving Maranello. ‘Enzo Ferrari never understood me,’ he told his biographer. ‘I wasn’t his type. A lot of fine drivers died racing for him, and he always favoured the man who would take the extra risk in a live-or-die situation. I wasn’t willing to die for Enzo Ferrari. I wasn’t willing to become one of his sacrifices.’

In the run-up to the fortieth anniversary of a race which had become a celebration of the internal combustion engine, the 1963 April test days provided a major surprise: the appearance of a Rover-BRM gas turbine car, a response to the ACO’s offer of a Fr.25,000 prize – about £1,800 then, £40,000 today – to the first car propelled by such means to complete the 24 Hours at an average above 150kph, or 93mph.

The Rover Company of Solihull, Warwickshire, could claim a unique distinction in the field of personal transportation. In 1885 its co-founder, John Kemp Starley, had produced the first chain-driven bicycle with wheels of the same diameter, rendering all descendants of the penny-farthing obsolete and laying the foundations for the company’s future as it went on to manufacture motorcycles – including 500cc models supplied to the Imperial Russian Army during the First World War – and motor cars. After a difficult time in the 1920s, new management supervised a range of sports saloons that made the Rover a favoured car for middle-class British families over the following decade.

During the war the company worked with the inventor Frank Whittle and the Air Ministry to develop the first jet engine. Although differences of opinion led to them parting company with a project destined to produce

Britain's first jet fighter, they continued working on a gas turbine of their own, unveiled in 1950 in a two-seater car called the JET1. Two years later it set a speed record for turbine-powered cars, reaching 150mph on the Jabbeke highway in Belgium.

Early plans for the design of a turbine-powered Rover to compete at Le Mans involved the use of a Lotus or Cooper chassis. But at a meeting between the company's managing director, William Martin-Hurst, and Sir Alfred Owen, chairman of Rubery Owen and owner of BRM, the conversation moved on from their usual business concerning the supply of components to the idea of a collaboration in which Rover's turbine would be mounted in a BRM F1 chassis, modified to take two seats, a pair of 23.5-gallon kerosene tanks, and open-topped sports bodywork of aluminium and fibreglass.

Three turbines were put through a twenty-four-hour cycle on the test bed, simulating acceleration, top-speed running, braking and pit stops at the Sarthe. Graham Hill and Richie Ginther were seconded from BRM's F1 team to try the car for the first time at the Motor Industry Research Association track, where they had to get used to a gearbox offering only forward and reverse, to the extra large disc brakes needed to slow a car on which the engine would be doing none of the braking, to the turbine spinning at 60,000rpm behind the driver's head, and to a significant lag between the act of pressing the throttle and the response. At Le Mans, the car became the centre of attention during the tests. On a damp and chilly April day, the absence of heat from conventional radiators meant that the drivers found it difficult to keep warm. But while a fastest lap averaging 111mph was 20mph slower than the best prototypes, it suggested that the ACO's target speed was well within reach.

After attempting to create a championship restricted to Grand Touring cars in 1962, foiled by the insistence of the ACO and other organisers on continuing to admit full-blooded sports-racing cars, the FIA mired themselves in even more confusion by restoring prototypes of unlimited engine capacity to their own series for 1963, in the stated expectation that these cars would become the series-production road cars of the future. Promoters in search of an exciting spectacle were not inclined to take that suggestion too seriously. One only had to look at the entry list for Le Mans, wrote *Autocar's* sports editor, Peter Garnier, to see that it included 'cars which by no stretch of the imagination could be used on the road'.

For the first time the order of the cars lined up for the start would be determined by practice times rather than engine size. The clear favourites were the new mid-engined three-litre Ferrari 250 Ps, particularly the car shared by John Surtees, the Scuderia's new team leader in Formula 1, and 'Wild' Willy Mairesse, the fast but headstrong Belgian. So it was with particular pleasure that Phil Hill, a few months after his acrimonious departure from Maranello, got away first from the start in the latest Aston Martin, the four-litre Project 215 prototype. Before long, however, he lost the lead to André Simon in Maserati France's five-litre Tipo 151, which would be timed on the Mulsanne straight at 186mph. The Maserati was still leading when Simon handed over to Lucky Casner, his co-driver, but soon the gearbox broke and another chapter had been written in Maserati's ill-starred history at Le Mans.

Once again the race turned into a Ferrari cavalcade. Surtees and Mairesse led until they were halted in the twentieth hour by a fuel fire, after which Lorenzo Bandini and Ludovico Scarfiotti took the overall victory in another 250 P: the first win at Le Mans for an all-Italian team of car and drivers, and the first for a car with its engine behind the driver. Sixteen laps behind them came the GTO of the Équipe Nationale Belge, driven by 'Beurlys' (Jean Blaton) and Gérard Langlois van Ophem, with the 250 P of Parkes and Maglioli in third place – running on eleven of its twelve cylinders and with a fading clutch – and three more Ferraris in fourth, fifth and sixth. 'Never before has a marque been so decisively supreme as are the red cars from Maranello in sports car racing,' *Autocar* reported.

Only forty-nine cars had started, almost a quarter of them Ferraris, and a meagre twelve would qualify as finishers, among them one of two cars resulting from an arrangement between Carroll Shelby and AC Cars of Thames Ditton, Surrey, to put a 4.7-litre Ford engine into an AC Ace chassis. The lusty AC Cobras brought the unmistakeable sound of an all-American V8 back to Le Mans, providing competition for the three new lightweight E-types entered by Briggs Cunningham. The surviving Cobra, driven by Peter Bolton and Ninian Sanderson, sponsored by the *Sunday Times* and managed by Stirling Moss, finished seventh overall, beating the E-type of Cunningham, in his last appearance as a driver at Le Mans, and Bob Grossman to win the big GT class.

A more sophisticated use of a big Ford V8 could be found in the new Lola Mk 6 GT, a neat rear-engined coupé designed by Eric Broadley and his assistant, Tony Southgate, around a monocoque with the engine as an integral part of the overall structure, saving weight while increasing rigidity. Its preparation had been delayed and Broadley had driven it from his factory in Kent to Le Mans, his ferry delayed by fog in the English Channel. Given a special dispensation to turn up for scrutineering at 10.30 a.m. on Thursday, the car was found to be unacceptable on several counts: poor rear vision, insufficient width of its rear-wheel arches and a fuel tank found to be thirteen litres over the permitted maximum of 140.

A day and a night of non-stop work resulted in all requirements being met, and – benefiting from the organisers' need to bolster an unusually small field – the car was permitted to race. Driven by two young Englishmen, Dickie Attwood and David Hobbs, and handicapped by gearing that restricted its maximum speed to 150mph, the Lola gradually worked its way into the top ten, until two hours were lost sorting out a problem with the gearbox when dirt got into the selector cables. The problem recurred when Hobbs crashed at the Esses soon after dawn, the gearbox having suddenly offered him only neutral. But anyone who noticed the car's progress would have caught a glimpse of the very near future.

The weekend proved to be a disaster for Aston Martin, reaching its nadir soon after dark when Bruce McLaren was speeding along the Mulsanne straight in sixth place in one of two 3.7-litre Project 214 GTs. The engine blew, dropping twenty litres of oil on which the E-type of Roy Salvadori spun before crashing heavily, the driver thrown clear as flames engulfed the overturned car. Trying to avoid the chaos, which by then included one of René Bonnet's cars stationary in the middle of the road, the Brazilian driver Christian 'Bino' Heins left the track, hit a telegraph pole and was killed when his car caught fire. The marshals were helpless, having emptied the extinguishers that might have saved him on Salvadori's blazing car.

Heins had been leading the Index of Performance in an aerodynamic one-litre car built by Jean Rédélé, a Renault dealer and former rally driver from Dieppe, under the name Alpine, chosen because of his successes in the Alpine Rally. Instead, the award went to one of René Bonnet's Aérojets, co-driven by Jean-Pierre Beltoise, a former motorcycle champion whose imminent

graduation to Formula 1 would presage the emergence of an entire generation of gifted French drivers.

The greatest distance covered by a British car was the 2,592 miles recorded by the Rover-BRM, good enough for seventh place overall had it been eligible for inclusion in the regular competition. Required to start – with a ghostly whoosh rather than a roar – half a minute after the rest of the field, it maintained an average of 107mph over the 24 Hours, using a gallon of Esso Blue paraffin every seven miles, ensuring the award of the ASO's special prize and a great deal of publicity. 'Britain's triumph!' cheered the *Sunday Express*. 'A landmark in motoring history,' declared *Autocar*. But was it, as a Pathé News report claimed, 'about to alter the whole pattern of tomorrow's motoring'?

'At about 4.30am on Wednesday of last week, an AC Cobra from the Thames Ditton factory waited at a service area on M1 until no traffic had passed for several minutes. Then it went all-out along the motorway in four test runs, reaching a speed of around the 180mph mark. The AC was being prepared for tomorrow's 24-hour race at Le Mans, and, we are told, was being driven by Jack Sears.' – From *Autocar*, 19 June 1964.

The service station, then known as the Blue Boar, was familiar to a new generation of British beat groups as the place to stop in the early hours of the morning while on the way back to London from gigs, allowing their roadie to take a break while they refuelled with a plate of baked beans on toast. Later renamed Watford Gap, the Blue Boar was close to the northern end of the first section of the M1, opened in 1959 and stretching from London to the West Midlands. At that stage Britain's first full-length six-lane motorway had no barriered central reservation, no warning signals and, crucially, no speed limit.

In the early 1960s traffic was still light. Many car owners were nervous of motorway driving, while the railways still carried the bulk of goods deliveries. So when AC Cars wanted to simulate the sustained high-speed running experienced on the Mulsanne straight before sending their new Cobra coupé, powered by a 4.7-litre Ford engine, to Le Mans, it was a logical and virtually risk-free step to send their personnel up from Surrey to the Midlands in the early hours of the morning. The crew included Sears, a British saloon car champion who had finished fifth at Le Mans in 1963 in a Ferrari and whose task was to check the car's straight-line stability over prolonged bursts of

maximum speed. What he discovered was that the car was still rock-solid at its limit of 6,500rpm. He had no idea how fast that was because, being built for racing, the Cobra had no speedometer. The technicians did their sums and concluded that he had been travelling at 185mph. He reported dropping his speed on one occasion during a run, out of consideration for the effect he might have when passing the only other car he encountered.

Within days the story got out, apparently through a conversation in a Fleet Street bar. Once it was in the newspapers, questions were asked in Parliament. Forced to take an interest, the Ministry of Transport looked into the incident. No laws had been broken, so there was no direct action to be taken. The civil servants simply added their findings to a dossier of evidence being compiled to make the case for an overall speed limit.^{[II](#)}

The Cobra coupé from Surrey would be one of a trio at Le Mans. The others came from Shelby, who had conceived the idea of putting a big Ford V8 into an AC chassis and had taken it further for 1964 with a closed body intended to improve the aerodynamics. The Cobra's suspension was also completely redesigned and the first car, built in Shelby's workshops in Venice, California, ran well on its first time out at Daytona, earning the name by which the model would be known: the Daytona Coupé.

If Shelby's idea was to build a car to beat the Ferrari GTOs, the makers of the engines that powered his cars had bigger ambitions when it came to beating the Italians at Le Mans. A year earlier, the Ford Motor Company's Italian representative had arranged a private meeting with Enzo Ferrari. At first they talked about Ford's idea of a collaboration between the two companies on a GT car to be made in large numbers. Then, again at the Ford man's behest, the notion of a more extensive arrangement was discussed. Ferrari showed an interest, knowing that such a deal would secure the future of his company and relieve him of the constant burden of selling enough road cars to pay for the racing operation (in 1963 he had built a mere 598 cars for sale to the public). He stipulated only that he would insist on retaining complete control of the sporting side. Very soon a five-man Ford delegation was heading for Maranello, where they spent three weeks examining every aspect of Ferrari's operation.

At the end of their investigation, Ford offered to buy Ferrari for \$18 million. The price was acceptable and further discussions were devoted to the

details of the agreement to create two linked companies: Ferrari-Ford, to build and operate racing cars, and Ford-Ferrari, to take over the road car side of the business. Enzo Ferrari would own 90 per cent of the shares of the first company and 10 per cent of the second. But when Ferrari examined the draft, he discovered a stipulation that any expenditure on the racing operation over 450 million lire (about £250,000, or about £6 million today) would have to be sanctioned by the Ford management. His anger was immediate and volcanic, expressed in a tirade directed at Ford's chief negotiator.

The deal had crashed and burned, but the story was just beginning. In Detroit, Henry Ford II reacted to the news by pledging to take on Enzo Ferrari not in the boardroom but on the racetrack, and to beat him at his own game, and specifically in the race with the highest visibility in the world and in which the Italian firm was currently dominant. Three weeks later, as Ford's management began the search for a solution to their president's demand, the promising performance of Eric Broadley's very advanced Ford-engined Lola Mk 6 at Le Mans offered them a short cut. Broadley, perennially underfunded, was happy to sell them the car and another that hadn't been finished in time to race, and to sign an agreement to work on a freelance basis with their own man, Roy Lunn, to develop the package into a winning proposition.

Lunn, an English engineer, had worked for Aston Martin before leaving Britain for the US. So it was no surprise when John Wyer, who had supervised the long campaign that culminated in Aston's 1959 victory, was recruited to run the Ford campaign at an organisation that would become known as Ford Advanced Vehicles in Slough, west of London. And that was why, in the third week of June 1964, three cars with white bodywork, dark blue bonnets, and 4.2-litre pushrod V8 engines originally developed for Indianapolis arrived at the Hôtel de France in La Chartre-sur-le-Loir, Wyer's favourite base camp.

The Lola identity had disappeared and the new Ford GT40s – named for the height of the car's roof in inches – were lined up under the ivy-clad walls, just as Wyer's Astons had been so many times in the 1950s. They were hoping for an improvement on their showing at the April test days, during which severe aerodynamic instability had provoked a crash in which Jo Schlesser wrote off one car while Roy Salvadori had a less violent accident when the car lost downforce on the hump before the Mulsanne corner. Modifications were quickly made but the experience prompted Salvadori to leave the programme, although the driver pairings were still formidable: Phil Hill and Bruce

McLaren, Richie Ginther and Masten Gregory, and Schlesser with Dickie Attwood.

After ten spectators were badly injured when they fell from a Martini advertising hoarding shortly before the start of the race, the opening laps offered mixed fortunes for the Ford team. While Phil Hill's car initially refused to fire, Ginther pulled by a string of Ferraris on the Mulsanne straight, topping 200mph as he slipstreamed past to take the lead on the second lap. The Ford led for an hour and a half, establishing a lead that was then eroded by the pursuing pack of Ferraris and finally surrendered to Surtees, who handed over to Bandini after three hours while Ginther gave way to Gregory. At dusk the Ford retired with a broken gearbox, and Schlesser's sister car caught fire on the straight. Now Surtees and Bandini were leading in their Ferrari 330 P, ahead of Vaccarella and Guichet's 275 P. Phil Hill had been making up time after his disastrous start in the surviving Ford, proving the car's potential by setting a new lap record in 3min 49.4sec as he and McLaren climbed from last to fourth, only to succumb to gearbox troubles. With eleven hours still to go, all the GT40s were out.

The three Daytona Coupés had proved faster than the Ferrari GTOs. One, entered by Briggs Cunningham, was up to fourth place at 10 p.m. when an electrical problem shorted the battery and they were disqualified for attempting to start it with another one, having been spotted and reported by a Ferrari mechanic. Later, in retaliation, Cunningham counted more than the permitted number of mechanics working on the leading prototype of Surtees and Bandini and lodged a complaint which led to a public row with Dragoni, the Ferrari team manager, but no further action.

For another of the Daytona Coupés, the AC-built car, the race ended in tragic circumstances when Peter Bolton was hit by Giancarlo Baghetti's Ferrari after a burst rear tyre sent the British car into a spin between Arnage and Maison Blanche in the late evening. Three teenaged boys, watching in a prohibited area, were mowed down and killed.

Surtees seemed to be cruising to a straightforward win when a petrol pipe split and his Ferrari started to run dry at Mulsanne just before he was due in for a refuelling stop. He made it back to the pits, where the pipe was repaired and the tank refilled. Problems with overheating also delayed the car in the later stages, meaning that he and Bandini had to settle for third place. They finished a dozen laps behind the winning 3.3-litre 275 P of Nino Vaccarella, a

law professor from Palermo, a fast and reliable sports car driver who would win the Targa Florio in front of his fellow Sicilians on three occasions, and Jean Guichet, an industrialist from Marseille, a gentleman driver who had become a valued customer of Enzo Ferrari. In second place overall came Jo Bonnier and Graham Hill in their 330 P, ahead of Surtees and Bandini, giving Ferrari a fourth successive one–two–three.

Although the GT40s had failed in their mission to win the race overall, the surviving Daytona Coupé gave Ford something to celebrate. By finishing fourth in the Shelby-entered car, a lap ahead of the nearest Ferrari GTO, Dan Gurney and Bob Bondurant had deprived the Italian company of the GT title it had monopolised since the category was created five years earlier. It was a step on the road to making Enzo Ferrari pay for his decision to turn down the almighty dollar.

One of René Bonnet's Aérojets won the class for the smallest cars, but it was the end of the road at Le Mans for the constructor who had produced so many ingenious and successful machines. With his company struggling to stay afloat, he was about to sell it to Jean-Luc Lagardère, an ambitious businessman who had just become chief executive of the Matra company (Mécanique Aviation Traction) and wanted to move from aero engines to automobiles.

Briggs Cunningham, too, was saying goodbye. Along with his money, he had managed to bring a certain American zest to Le Mans while respecting the race's character and traditions. He had divorced and married again and now he was moving to Southern California. There, from a museum containing the cars he had built to conquer Le Mans in American colours, he could watch on while others edged closer to making that dream come true.^{[III](#)}

^{[I](#)}. This would be the final Le Mans appearance for Ricardo Rodríguez, killed in November during practice for the Mexican Grand Prix, three months short of his twenty-first birthday.

^{[II](#)}. At Christmas 1965, a four-month trial of an overall 70mph limit for UK roads was announced. The 'temporary' measure was extended several times until, in 1978, it became permanent.

^{[III](#)}. Briggs Cunningham died in 2003, aged ninety-six. In 1986 he had sold his collection of cars to Miles C. Collier, the son of an old friend whose tales of racing at Le Mans in the '30s had fired his imagination. Collier moved the cars to a new museum in Florida. Of his entire collection, Cunningham kept only a toy electric-powered Bugatti which had been used by his children; he had bought it while visiting Paris for the first time with his mother, when he was nineteen.

CHAPTER 12

The steamroller (1965–69)

Now it was war. Recriminations had followed Ford's failure to beat Ferrari at the first time of asking, and at the start of 1965 Henry Ford II placed control of co-ordinating the racing team in the hands of Carroll Shelby, whose work in creating the Cobra had borne such handsome fruit. Eric Broadley had been ousted after disagreements with Roy Lunn, and the cars were now to be built under Lunn's supervision at a small racing shop called Kar-Kraft in Dearborn, Michigan, close to Ford's headquarters, acquired as a unit where special projects could be developed.

Shelby brought in another transplanted Englishman, Ken Miles, to help solve problems over aerodynamics and cooling that had been plaguing the GT40, and specifically to work on two cars in which the 4.7-litre engine had been replaced by a seven-litre V8 initially designed for NASCAR racing. Miles, born in Sutton Coldfield in the West Midlands, had served in the war as an engineer with a tank regiment. In 1951 he emigrated to Southern California, where he won many races and had become both venerated for his deep knowledge of racing and disliked by some for the sharp tongue with which he delivered his firm opinions.

On the long straights of the Circuit de la Sarthe, cubic inches – of which there were 427 in the new engine – were deemed to offer the surest way to beat Ferrari, the biggest of whose current Le Mans cars had 4.4-litre engines. Two of the seven-litre GT Mk IIs and four of the original GT40s, built by FAV at Slough, were despatched to Le Mans, the smaller-engined cars entered by Ford France, Scuderia Filipinetti, Rob Walker and FAV itself, still under

John Wyer's control but now functioning as a satellite organisation. They were supported by five of Shelby's Daytona Coupés, which Miles had also helped to develop, in their distinctive version of the US colours, a metallic shade called Guardsman blue with a double white stripe.

It was an American invasion that outdid even the Cunningham armada in scale and resources, and from the outside it gave the appearance of a formidable unity. There was even a favourable portent when, three weeks before Le Mans, Jim Clark and his Lotus provided the first-ever victory for a Ford-engined car in the Indy 500. At the Sarthe, however, there were conflicts between the approaches of the different Ford teams. Some indication of what was going on behind the imposing façade came when the GT40s turned up at Le Mans with larger 5.3-litre engines which, once they started blowing up during the midweek practice sessions, were hastily switched for the original 4.7-litre units.

The honour of Italy was to be upheld by Ferrari and Maserati. There were two of the Scuderia Ferrari's new 330 P2 Spyders, one for Surtees and Scarfiotti and the other for Parkes and Guichet. At the test weekend in April, Surtees – now the reigning F1 world champion – did nothing for American confidence by lapping his four-litre car, distinguished by an aerofoil behind the driver's head, five seconds faster than the best of the seven-litre Fords.

Maserati, by contrast, had come to the race in unhappy circumstances, following a fatal accident during the test days. The track was wet when Lucky Casner, now very much an occasional driver, took out the latest version of Maserati France's front-engined Tipo 151. As he began to brake from high speed at the end of the Mulsanne straight, the big coupé snapped out of control, somersaulting several times as it flew off the track, coming to rest upside down on a recently opened infield golf course. Extricated from the crushed cabin, the American was pronounced dead three hours later at the Delagénère clinic. 'An accident of this sort,' *Autocar* wrote, 'does underline a dangerous aspect of the 24-Hour race – its attraction as an annual outing for drivers who are thoroughly out of practice.'

Now without a car for the race, Johnny Simone commissioned Maserati to build something new. The chief designer, Giulio Alfieri, set to work. Seven weeks later, Colonel Simone was able to take delivery of the Tipo 65, an open-cockpit prototype with a five-litre V8 engine located behind the driver in a Birdcage-type frame. There was no time for testing.

Gales had swept the circuit in the middle of race week, blowing down trees and advertising hoardings and forcing the cancellation of one of the practice sessions. When they were able to get out on the track, the drivers noticed a small but unsettling bump on the descent from the Dunlop bridge. This was where a new road forked off at the start of a much shorter layout built by the ACO for other forms of racing, to be named the Bugatti Circuit: a completely self-contained track which could be used all year round, providing another source of income for the ACO. It would become the location of several important events, including the motorcycle 24 Hours of Le Mans – although only one four-wheeled French Grand Prix, in 1967.

After endless tinkering with flaps, winglets and fins to cure the Ford Mk II's tendency to lift and wander at high speed, Phil Hill set the fastest lap in practice, recording a time of 3min 33sec – five seconds better than Surtees in the fastest Ferrari – at an average speed of 141mph, consuming petrol at the rate of four miles per gallon, or two gallons every lap. He was also clocked at an unprecedented 213mph on the straight. Since the seven-litre cars had not been ready for the test days, this was a first chance for Ferrari to see what Ford might have in store for them.

Among a crowd again said to number 300,000, Henry Ford II watched from the balcony above his team's pit as Chris Amon and Bruce McLaren got away first in the two Mk IIs, followed by the GT40 of Bob Bondurant. Siffert had the Maserati T65, twenty-first in the starting line-up, so quickly on the move that he was up to fourth by the time they reached the Dunlop bridge. Surtees had overtaken Siffert and Bondurant by the time they came past the pits at the end of the first lap, primed for what promised to be the race's defining battle with the two Fords up ahead. The Maserati would disappear after four laps with damage to the suspension and oil tank caused when Siffert went off the road at Tertre Rouge, the final act in the famous marque's inglorious ten-year saga at Le Mans.

All the logical predictions were to be confounded. When Phil Hill took over from Amon and Ken Miles replaced McLaren, the two seven-litre Mk II Fords were still in the lead. But Miles and McLaren went out with a broken gearbox before the daylight had begun to fade, and Hill and Amon retired with clutch failure soon after 11 p.m. Nor were the Slough-built GT40s providing the expected support: all four were gone before midnight. Once

again, as the Ferraris assumed command, the dreams of Henry Ford II had been very publicly dashed.

As dawn broke, however, the Scuderia's hopes for its star entries were also being demolished. The pair of works P2s had been swapping the lead until both succumbed to engine and transmission problems before dawn. Throughout Sunday morning the crowd witnessed the unlikely sight of the lead being held by a Belgian-entered 275 LM, run by Ecurie Francorchamps with funds from a hotel magnate and driven by Pierre Dumay and Taf Gosselin.

At noon, however, a rear tyre burst while Gosselin was on the Mulsanne straight, damaging the car's yellow bodywork and costing several laps while repairs were undertaken. By the time they re-emerged, another 275 LM had taken the lead. Masten Gregory and Jochen Rindt had dropped to eighteenth place after three hours while an electrical problem was fixed on their car, entered by Luigi Chinetti's North American Racing Team. They had spent the night chasing back through the field, running flat out with nothing to lose and making full use of the talents of the two Grand Prix drivers: an American with almost a decade of experience at the top and a 23-year-old Austrian prodigy already showing signs of world championship potential. The car was also one of only two Ferrari prototypes to be running on Goodyear rather than Dunlop tyres, Chinetti having scrounged several sets from the American manufacturer at the last minute. Bizarrely, they were rain tyres, already rejected by the Cobra teams. They turned out to work perfectly well on the Ferrari in the prevailing dry conditions, although needing to be replaced more frequently.

Almost by accident, Goodyear had achieved the first Le Mans win for an American tyre company, although at one point Dragoni attempted to persuade Chinetti to allow the Belgian-entered car to win the race, the Ferrari team manager pointing out that it was running on Dunlops, like the works cars, and that a Ferrari/Dunlop win would be a more satisfactory outcome in commercial terms. He received a dusty response. For Chinetti, three times a winner of the race as a driver, it was a sweet feeling to see his team's car come home to such an unexpected triumph. The two LMs finished five laps apart and ahead of a third Ferrari, the Ecurie Francorchamps 275 GTB of Willy Mairesse and 'Beurlys'.

Ferrari's fifth win in a row was celebrated in at least one part of the Ford empire. Four months earlier, Henry Ford II had married Cristina Vettore, an

Italian divorcée whom he had met at a party in Paris. Before the race, she had bet him that one of the red cars would win. For the host nation, there was no consolation. The only French entries had been five Alpines, none of which finished. For the first time in the race's history, no French car made it through the 24 Hours.

The highest overall finisher among the British cars was the dark green Rover-BRM gas-turbine car, now rebodied as a coupé, which Graham Hill and Jackie Stewart guided to tenth place. Sand had been sucked into the engine during an early off-track excursion, damaging the turbine blades and reducing its pace for most of the race. Its average speed was down to 98mph – slightly slower than its predecessor had managed two years earlier – but its fuel consumption, at thirteen miles per gallon, had been halved. The programme would be cancelled after Rover's management concluded that the challenge of transferring the technology to road cars was too great.

As the winning Ferrari, with Gregory at the wheel, made the traditional celebratory cruise back down the narrow safety lane between the track and the grandstands, the team's reserve driver was perched on the car's bodywork, along with Rindt, the team manager, a couple of mechanics and a photographer. Ed Hugus, a 42-year-old Pittsburgh car dealer, had been handed the role by Chinetti as a consolation after the car he was expecting to drive had not been finished in time. His presence would give rise to an enduring mystery over whether he put in an unacknowledged stint during the race.

After many decades of silence, Hugus finally chose to tell his version of how, sometime towards the end of the night, with mist settling around the circuit, Gregory had brought the car into the pits, complaining that the spectacles he always wore were getting fogged up. He was expecting Rindt to take over, but the Austrian had disappeared. 'Get your hat on and go,' Chinetti ordered Hugus, who was ready and waiting to take part in his tenth Le Mans. For five or six laps he circulated in the Ferrari before returning to the pits to hand over to Rindt, who had by then been found. Had the rules been applied, Rindt would not have been allowed to return to the wheel. Once replaced by a reserve, a driver's participation was over.

Not until other key participants – Gregory, Rindt, Chinetti – were all dead did Hugus choose to talk about it, but his name has never appeared in the official results. For the organisers, an acceptance that he was a third driver in the winning car would be to admit that they had allowed their own rule to be

broken, and that they had endorsed an illegitimate victor. They would hardly be keen to annul a result that had stood for half a century. So the only evidence that he had actually taken part was his own say-so. And further cross-examination became impossible when he died in California in 2006, the day before his eighty-third birthday.

Another defeat had strengthened Henry Ford II's determination to pour even more resources into the battle against a company whose annual output of road cars – now up to 650 – equalled the number manufactured in the factories of the American giant every forty minutes. The plan for 1966 was to copy Ferrari's approach by entering so many cars that, assuming they were the fastest in the field, one of them must surely last long enough to win. With that in mind, the racing operations were divided between three cars prepared by Carroll Shelby's team in Venice, California, three more by Holman & Moody, a highly successful NASCAR operation based in Charlotte, North Carolina, and two by Alan Mann Racing in England.

At the April test days the Shelby team turned up with not just the Mk II but a new variation known as the J-car, built by Kar-Kraft, in which the seven-litre engine was installed in a lightweight tub made of aluminium honeycomb panels, with automatic transmission and rear bodywork resembling that of the Ferrari 'breadvan'. It was reaching 205mph on a wet Mulsanne straight with Ken Miles at the wheel during the first day and 215mph when McLaren and Amon, the team's pair of New Zealanders, took their turns on a dry track the following day, both posting the circuit's first 140mph laps. For the race, though, the J-car would be left at home, pending further development.

For the second year in a row the test days produced a tragedy, and again it involved an American driver. Walt Hansgen, four times a Sports Car Club of America champion, was out in the first day's wet conditions in one of the Holman & Moody Mk IIs when the car failed to make the right-hand curve at the end of the pits straight, aquaplaning at 150mph down the road that once led to Pontlieue and hitting a pile of sand before somersaulting and landing on its roof. Unconscious in the wreckage, Hansgen had to be cut out before being airlifted to a US military hospital in Orléans, where he died of his injuries five days later.

A change in the CSI's regulations covering sports car racing meant that the world championship would now be contested by prototypes of unrestricted capacity. The result was immediately apparent: of the fifty-five cars starting the 1966 race, only three would be in Group 3, the GT class, of which 500 examples had to be manufactured. Nine would be in Group 4, the sports category, meaning that fifty had been made. The remainder, belonging to Group 6, would be prototypes, built without a thought for the requirements of series production.

The complexion of the race changed, and some observers were alarmed. Among them was Peter Garnier, *Autocar's* sports editor, who responded to the speeds achieved during the two April test days by pointing out that while F1 cars were constantly being reined in by changes in the regulations, sports-racing cars of the type seen at Le Mans were getting faster. This placed even more emphasis on the variation in experience and skill between the 110 drivers who would be taking part – 'one or two of whom,' he pointed out, 'even seem to make Le Mans the occasion for their single annual motor race.' Garnier was also concerned that drivers were given insufficient time for proper rest. 'Nobody can unwind after lapping at 130-plus and fall straight into a deep slumber,' he wrote. 'Nor can he, immediately upon waking, leap into the cockpit and resume lapping at 130mph.' It was time, he suggested, to allow three drivers per car.

Enzo Ferrari, who was arguing with the CSI about its refusal to accept the 275 GTB for homologation as a GT car, kept his team away from the test day. Under the surface at Maranello, bad blood between Eugenio Dragoni and John Surtees was disrupting the organisation. Very unusually, Ferrari had given Surtees permission to drive Lolas for Eric Broadley in sports car races in which the Scuderia was not taking part. But when the Englishman injured himself badly in a crash while testing a new Lola in Canada in September 1965, Dragoni – encouraged by Mike Parkes, Ferrari's other Englishman and a rival to Surtees – began questioning the loyalty of the team's No. 1 driver. After Mauro Forghieri pointed out what he saw as a suspicious similarity between the Lola T70 and his own new 330 P3, Ferrari decided to dismiss his 1964 world champion.

The plan was for Franco Gozzi, Ferrari's *consigliere*, to reveal the end of the relationship to the press after the Belgian Grand Prix on 12 June, the weekend before Le Mans. When Surtees won a brilliant victory in wet conditions,

Gozzi realised he would have to postpone the announcement. Unaware of his impending fate, Surtees travelled to Le Mans in time to drive a few laps in the P3 during the Wednesday practice session, but a row with Dragoni after he got out of the car led to the team manager letting him know that he was fired.

Surtees remembered that the final argument had been provoked by Dragoni's sudden announcement that the first stint in the car would be taken by Ludovico Scarfiotti, the nephew of Gianni Agnelli, the Italian industrialist who would be a guest at the race and whose family owned Fiat. Agnelli was shortly to begin the process of rescuing Ferrari with a deal to buy 50 per cent of the company's shares while allowing Enzo the freedom to run the racing team that Ford had intended to deny him. The decision to elevate Scarfiotti, already a Le Mans winner but not in the Englishman's class, seemed to contradict the team's agreed strategy, under which Surtees would start and go as fast as possible in order to lure the Fords to their mechanical destruction. What the team manager did not divulge was that he already had in his pocket a note in which Enzo Ferrari had written down the names of the driver pairings for the race, and Surtees was not among them.

His removal allowed Parkes to join Scarfiotti in the lead car, with Bandini and Guichet in the other P3 coupé, the two cars now distinguished by beautifully flowing bodywork designed by Pierre Drogo, cloaking Forghieri's fuel-injected quad-cam V12 engine. Rodríguez and Ginther were paired in a NART-entered P3 Spyder. Open or closed, the P3 was a car that, in many eyes, would come to define the look and the allure of 1960s sports-racing cars.

One newcomer threatened to disrupt the Ford–Ferrari duel: the Chaparral of Jim Hall and Hap Sharp, two Texans who had established themselves as drivers before setting up a company to manufacture racing cars distinguished by an instinct for innovation. Their new car, the 2D, featured a coupé body with gullwing doors, an airbox on the roof, a 5.3-litre Chevrolet V8 and semi-automatic transmission. At the beginning of June, the car had taken Phil Hill and Jo Bonnier to a surprise win in the Nürburgring 1000km.

Henry Ford II was given the honour of starting the race, and as he stood in the middle of a track still wet from a shower of rain, holding a tricolour and waiting for four o'clock, he could survey with pride the ranks of cars bearing his family's name. They presented themselves in a rainbow of colours, every hue allegedly chosen from the range of proprietary colours available to customers for the Ford Mustang: white, bronze, black and silver, blue and

yellow, pale blue and salmon pink, lime green, even a couple of different shades of red, once the symbol of Italian pride.

A black and silver machine led on the first lap. It was one of the Alan Mann cars, a lightweight Mk II built in Slough, with Graham Hill at the wheel, sharing the drive with Brian Muir, the Australian saloon car specialist. But soon the Shelby American cars would be taking over: first the red No. 3 of Dan Gurney and Jerry Grant, then the pale blue No. 1 of Ken Miles and Denny Hulme. The black No. 2 Shelby car, shared by McLaren and Amon, had to recover from a poor start, working its way up from eighteenth place to eighth in the first hour.

It was a measure of McLaren's standing within the team that, while the rest of their cars were contracted to run on Goodyears, Ford allowed his car to use tyres from Firestone, the company that subsidised the building of the F1 and CanAm cars bearing his name. In race conditions at Le Mans, however, the Firestone intermediates soon began throwing treads. The car had fallen two laps behind the leader with an hour and a half gone when McLaren brought it in, sent Amon out and went off to negotiate the switch to the Goodyears being used without problems by the other Fords. Firestone's representatives saw his point and gave their consent.

The disintegration of the Ferrari effort began with the retirement of the first of their P3s in the early evening and ended with the disappearance of the last one at two o'clock in the morning, leaving the Fords to dispute the outcome among themselves. Over the next few hours McLaren and Amon worked their way back to the sharp end of the race, swapping the lead with Miles and Hulme, with the Holman & Moody car of Ronnie Bucknum and Dick Hutcherson in third place, a dozen laps behind the leading pair. The only difference of opinion between the two New Zealanders in the No. 2 car was over cockpit ventilation. McLaren liked cold air on his face; Amon didn't. 'At the end of 24 hours, little things like that can start growing into big things,' McLaren would remember. A more profound disagreement, however, was about to shape the outcome.

The collapse of Ford's rivals had not deterred Miles from breaking the lap record time and again as he climbed back through the field after his early stop; evidently he was attempting to restage his Sebring duel with Gurney. This displeased Leo Beebe, appointed by Henry Ford II as his director of racing. A company man who had worked his way up through the public relations,

advertising and marketing departments, but with no background in motor sport, Beebe tried to put an end to the internecine battle. What he wanted was a demonstration of crushing superiority. When Gurney's car retired from the lead with a water leak in mid-morning, it became the fifth Mk II to disappear from the scoreboard, along with all five GT40s. But there were still three Mk IIs left; they were in the first three places and Beebe wanted no more risks to be taken.

When he ordered the leading cars to slow down rather than risk overextending themselves, Miles at first refused to co-operate. But as four o'clock approached, with the track again soaked by a rainstorm, the trio of Fords – a black one and a pale blue one on the same lap, and a bronze one a dozen laps in arrears – assembled in a loose formation. Having conferred with Henry Ford II, Beebe wanted to stage a dead heat between the leading two. It would look good on the morning news and the front page of the *New York Times*. The ACO were consulted, and after giving the matter some thought they informed the team that they would not accept the idea. But there was nothing to stop the cars finishing in line abreast. Nothing, that is, except the drivers.

Miles, taking the final stint, reacted furiously to the instruction. A win would give him a unprecedented treble of victories at Daytona, Sebring and Le Mans as a reward for all his development work. It would also have made a suitable birthday present for his co-driver: Denny Hulme was turning thirty that day. But Miles was aware that Beebe disliked his spiky manner and – perhaps crucially – did not consider him a promotable asset. He may also have known that in the event of a dead heat, the ACO would give the win to the car that had covered the greatest distance. Since the car of McLaren and Amon had started the race 8 metres further back down the line, it would be declared the overall victor.

And so, as the black and pale blue cars carefully completed the final lap on a soaking wet track, with the bronze car tucked in behind them, different heads were holding different thoughts. As they approached the finishing line, where Jacques Loste, the race director, was standing with the chequered flag, Miles seemed to hang back slightly, although the cars were almost level as they crossed the line. Not until McLaren brought the No. 2 car to a halt did he and Amon discover that they had won the race. Harsh words were exchanged between the two sets of mechanics as McLaren and Amon went to receive the

applause, the trophy, the bouquets and the champagne. Eventually the two New Zealanders were joined on the rudimentary podium by Hulme, their fellow Kiwi, and Miles, who had donned a woolly hat and a giant duffel coat that may have dated from his days in a wartime tank regiment.

Although overshadowed by the battle of the titans, Porsche filled the fourth to seventh positions with their new long-tailed Carrera 6s, designed by Ferdinand Piëch, a grandson of Ferdinand Porsche. Its flat-six engine put it in the two-litre class, although an outright win in the Targa Florio suggested that its sights were on bigger things. Next to last among the fifteen finishers was a Porsche with an even more lasting significance: a red 911 S coupé, designed by Ferdinand 'Butzi' Porsche, another of the founder's grandsons, to provide a six-cylinder replacement for the original VW-derived four-cylinder 356. Its victory in the GT2000 class, in the hands of two French drivers, Jacques Dewes (racing as 'Franc') and Jean Kerguen, was the first of many in a long career at Le Mans.

As McLaren and Amon celebrated, they were joined by a beaming Henry Ford II and his wife, Cristina, who had remained true to her Italian heritage by betting once again on a Ferrari win, this time losing her \$1,000. Her husband's rather bigger gamble had finally paid off.

'If they'd let Bruce and me race for it,' Ken Miles said, 'we wouldn't have had all this nonsense.' But two months after having to settle for second place he was back at work, testing the experimental J-car to see what needed to be done to turn it into the Mk II's successor. On a hot Tuesday afternoon in August he drove the fastest lap ever recorded at the Riverside International Raceway, in the Moreno Valley fifty miles east of Los Angeles. The following day he went out again and was braking from 175mph at the end of the mile-long downhill straight on the far side of the track when the car suddenly went out of control, bouncing down a steep embankment. Thrown out before the wreckage burst into flames, he died instantly from severe head injuries. 'I have known no other driver whose death has touched so many people in some special, private way,' wrote the editor of *Road & Track* in an obituary.

Miles had been killed, in Carroll Shelby's assessment, 'by that goddam shitbox they built at Kar-Kraft'. Now the development of the J-car was put into the hands of another Shelby lieutenant, Phil Remington, who

transformed it for 1967 into the Ford GT Mk IV, retaining the seven-litre engine and the lightweight bonded aluminium honeycomb panels that formed its chassis but redesigning the body to tame the aerodynamic flaws that had almost certainly caused Miles's fatal accident. Another consequence of that tragedy was the inclusion of a steel roll-cage whose weight cancelled out most of the savings on the chassis, making it 600lb (270kg) heavier than the new Ferrari P4.

Ferrari would be entering three P4s, four P3s and one P2 at Le Mans. Franco Lini, a sports journalist from Mantua, was their new team manager, with a brief to improve internal relationships and get the personnel to focus on the priorities. Bandini's death in the Monaco Grand Prix in May had forced him to reshuffle his driver combinations. He put Vaccarella with Amon in the first of the P4s, Parkes with Scarfiotti in the second, and Günther Klass of Germany, a former Porsche works driver, with the Englishman Peter Sutcliffe in the third.

They were confronting the Ford squadron of four Mk IVs, two Mk IIs and three GT40s, plus two new cars affiliated to Ford: a pair of Mirage M1s built at the old Slough headquarters of Ford Advanced Vehicles by a new company called JW Automotive. This had been formed by John Wyer and his partner John Willment after Ford had sold them the FAV premises at a friendly price, granting the right to manufacture and sell GT40s and to use the design as the basis for their own modified version. Wyer had acquired significant sponsorship from Gulf Oil and the cars, using a 5.7-litre version of the Ford V8, were painted in the oil company's distinctive livery of powder blue and marigold.

At Chaparral, Jim Hall had come up with a coupé immediately distinguished by an adjustable wing mounted on tall struts above the rear axle, hydraulically operated and pedal-activated. Two of these snow-white cars, now with seven-litre Chevrolet engines, were entered, with Phil Hill among the drivers. The other main challenger to Ford and Ferrari was Lola, where John Surtees had worked with Eric Broadley and Tony Southgate on a sleek coupé version of the T70 CanAm car, powered by a five-litre Aston Martin V8 engine. Surtees would co-drive one of the two cars being readied for the race.

Meanwhile, Shelby was also examining the driver pairings presented to him by the Ford management, particularly those nominated for his No. 1 car: Dan Gurney, the Californian son of an opera singer, with vast experience of sports

cars and of European racing, and A. J. Foyt, a Texan bred on dirt ovals, on midget cars and stock cars and the single-seaters designed for the 800 left turns that constituted the Indianapolis 500 Miles. 'It wasn't Gurney I was worried about,' Shelby said. 'It was Foyt trying to show he was faster than Gurney.' In the event, Foyt's wisdom in deferring to Gurney's experience in setting up the car for Le Mans was matched by Gurney's shrewdness in setting relatively conservative lap times in practice, so as not to provoke Foyt into trying to match him and putting undue strain on a car that was going to have to last twenty-four hours of hard racing.

The first car away at Le Mans, and the leader by a distance at the end of the first lap, was the Ford Mk II of Ronnie Bucknum, a Californian who had raced in F1 with Honda. The Chaparrals had been slow starters, thanks to team owner Jim Hall's strict instruction to Phil Hill and Bob Johnson to fasten their safety harnesses before setting off. Gurney was in fifth place, having slowed on the Mulsanne straight while buckling his belt. Hardly had the race begun when Ferrari tried to lodge a protest, claiming that the ground clearance of the Fords was less than the permitted minimum of four inches. Shelby's response was that if Ferrari protested the Fords, Ford would protest every other car in the race, knowing that practically every team got up to tricks with wedges to lift their ride heights for scrutineering, only for those wedges to disappear just before the racing started.

While that was going on, both Lolas – which had lined up looking so smart in their dark green paintwork, with a broad white arrow on the nose – made a humiliatingly early exit. Surtees' car was wheeled away from the pits with a broken piston after a mere three laps. The second car was gone by the time Gurney took the lead in the second hour, setting the pattern of the race. The heavier but more powerful Fords had an advantage over the lighter and better-handling Ferraris, whose V12 engines were fifty brake horsepower short of the American V8s, giving a top speed of 210mph for the Mk IVs against 190 for the P4s: a crucial difference on Le Mans's long straight. All the Italian team could do was wait for the Fords to break down and hope that one or two of their own cars would hold together.

The first Ford to go was the JW Automotive GT40, which arrived at the end of the Mulsanne straight in a ball of flame after petrol leaking from the filler cap ignited on the hot exhausts. Its driver, Mike Salmon, was pulled from the blazing car and taken to hospital with second-degree burns. Ferrari had a

bonfire of their own later in the evening when a rear tyre blew on Chris Amon's P4. The driver's attempt to change the wheel out on the circuit failed when the head flew off his hammer as he aimed it at the knock-off hub. He got back in and drove it slowly back towards the pits with one flat tyre, making a rapid escape when sparks from a dragging suspension upright sent the whole car up in flames.

If that was a blow to Ferrari, at around three o'clock in the morning the Ford team engineered a mass suicide. Andretti was running second, behind Foyt, before stopping for his front brake pads to be changed. In the haste to get the car back into the race, one of the pads was installed back to front. On his first lap out of the pits Andretti was hurtling down from the Dunlop bridge to the Esses when the brake locked and sent him head-on into the earth bank, demolishing the front of the car and breaking a couple of his ribs. Close behind were the Holman & Moody Ford Mk IIs of Roger McCluskey, who hit the wall on the other side of the track while trying to avoid Andretti's car, and Jo Schlesser, who was unable to find a way between the two wrecks. Within seconds, three Fords were out.

While one Chaparral had succumbed to electrical problems during the night, the car of Hill and Spence had been delighting the crowd by running in third place, despite losing 15mph from its top speed when the aerofoil locked in the high-drag position. When it was halted by transmission problems at dawn, two mechanics – the maximum permitted under the rules – set to work to replace the gearbox, encouraged by spectators crowding above them in the pits balcony. After several hours of work, there were cheers as the car accelerated back onto the track. It lasted a further three hours before being withdrawn when the problem recurred.

Gurney, knowing that brake wear was the potential Achilles heel of the heavy Ford, had been coming off the throttle even before the hump on the approach to the Mulsanne corner. Foyt had been similarly conservative, finding the Mk IV 'an easy car to drive', although his enjoyment of the experience was reduced by a dislike of the white paint applied to the lower trunks of the trees lining the sort of road circuit with which he was not familiar: 'I said, goddamn it, I know they're there. You don't have to remind me.'

For the last twelve hours of the race, he and Gurney were pursued by Parkes and Scarfiotti in the fastest Ferrari, who enjoyed the crowd's

wholehearted support as they tried to press the Ford into blowing up or making an error. There was a row during the night when the organisers' IBM timing equipment failed and the official standings showed that the Ferrari was five laps behind the Ford, rather than the one lap that the Scuderia's chart-keepers made it. Lini's protests were brushed aside.

Behind the works Ferrari was the Équipe Nationale Belge P4 of 'Beurlys' and Willy Mairesse. In fourth place was the yellow Ford Mk IV of Donohue and McLaren, its tail section reattached after falling off out on the circuit. When the mechanics tried to secure the engine cover with tape, the officials pointed out that it had to be detachable at all times. In a brilliant piece of improvisation, they used their trouser belts to create a fastening that could be unbuckled whenever necessary. They managed to finish ahead of the Porsches that filled fifth to eighth places, headed by the new 907 *langheck* (long-tail) of Jo Siffert and Hans Hermann, winners of the Index of Performance.

The honour of driving the final stint went to Foyt. In front of a crowd of well over 300,000, he and Gurney had covered 3,251 miles at an average of 135.4mph, breaking every record as they finished two laps ahead of the second-placed Ferrari. As they stood together on the podium, alongside the winners of the Index of Performance, Gurney was handed a bottle of champagne and did something that would have historic consequences. Before easing off the cork with his thumbs, he shook the Moët et Chandon bottle. Once the cork had popped, he shook it some more, aiming the spray first at the photographers lined up in front of the podium and then hosing all those in the vicinity. Everyone laughed at this novel prank and Siffert, who had been given a similar bottle, quickly followed suit.

The champagne was French, the location was French and the event was French, but for the first time the outright winners – the car and its equipment, the entrant and his drivers – were all American. Henry Ford II could brush the champagne spray from his wife's shoulders and bask in the glory of a triumphant conclusion to his long campaign. Carroll Shelby later said it was the only time he had been involved in a project for which there was no defined budget. The cars were built and raced regardless of cost. Ford simply spent, spent, and spent some more until the job was done.

There were only fifteen finishers, but it had been a most spectacular Le Mans. Five F1 world champions of the past, present and future took part: Phil Hill, John Surtees, Denny Hulme, Jochen Rindt and Mario Andretti. Four

major tyre manufacturers went into battle: Goodyear with the winning Fords, Firestone with the Ferraris, Dunlop with Porsche and Michelin with the class-winning Alpine-Renaults, which had raced on the first slick tyres ever seen at Le Mans. Of the fifty-four starters, twenty-six had engines of between four and seven litres. As a display of unbridled power and ambition at every level, it was unsurpassed.

The *événements* of May 1968 echoed far beyond the barricades erected by angry students on the Boulevard Saint-Michel. One effect of the civil unrest manifested in strikes and demonstrations that lasted until late June was to force the rescheduling of the Grand Prix d'Endurance from its usual mid-summer date to the last weekend in September. Given the enforced switch to an autumn date, the start was advanced an hour to 3 p.m. Night would fall before eight o'clock, bringing on ten hours of darkness, three more than usual.

The ACO enacted its own revolutionary gesture by inserting a chicane at the end of the run down from Maison Blanche to the pits. Named after Ford, who had paid for its construction, the two ninety-degree turns, left then right, were intended to slow the cars before the start of the pit lane and the grandstand area. The Virage Ford added ten seconds to the average lap time and took away an element of the spectacle for those in the main grandstands, but it made life safer for the team personnel working in a still-unprotected area.

Another piece of the spectacle was also removed when the world governing body of motor sport restricted Group 6 prototypes to engines of three litres – the same as current Formula 1 cars, enabling manufacturers to use the same power unit for both categories of racing. Luggage space and a spare wheel – mandatory since the first race forty-five years earlier – were no longer required in prototypes. Group 4 sports cars, of which at least fifty examples had to be made, were allowed engines of five litres. GT cars could still be of unrestricted capacity. And for the first time, advertising material could be carried on the cars.

In this, John Wyer's use of Gulf Oil's colours on his Mirage-Fords in 1967 had been a harbinger. The GT40s he entered a year later would also have the Gulf logo on both flanks, along with stickers advertising the use of Firestone tyres, Ferodo brakes and Autolite electrical equipment. The works Porsche

908s carried Shell stickers on their rear wheel arches, while a long-tailed 907 entered by a Zürich-based team had the name of Hart, a Swiss ski manufacturer, emblazoned on its side and tail. By promoting a product that had nothing to do with anything to be found on or in the car itself, they were part of a trend that would eventually see racing cars – even at Le Mans – painted to resemble cigarette packets, soft drink cans or bottles of sun-tan lotion.

The list of entries assembled under the new regulations lacked both the chief protagonists of the previous year. The Ford Motor Company had completed its mission. The Scuderia Ferrari was also absent, kept at home by Enzo Ferrari's belief that a five-litre car produced in sufficient quantity to qualify as a Group 4 entry would always beat a three-litre prototype, thanks not just to the extra power but to a rule permitting a 160-litre petrol tank against the 120 litres to which the prototypes were restricted. There were, nevertheless, plenty of privately entered Fords and Ferraris in the lists: five GT40s, three of them run by Wyer's experienced team, and four 275 LMs.

It was the three-litre prototypes, however, that attracted the keenest interest. Huschke von Hanstein, Porsche's veteran team manager, brought a squad of four new long-tailed 908s with flat-eight engines. Victories at the Nürburgring and Zeltweg sent them to Le Mans with high hopes of an outright victory. Their direct rivals came from Italy and France: three Alfa Romeos, three Alpine-Renaults and a single Matra, its new V12 engine, designed by Georges Martin, making perhaps the most viscerally exciting sound ever conjured from a power unit of its size.

The ACO's reputation for encouraging new technology was revived by the arrival of a team of two American gas-turbine cars named after their chief sponsor, the Howmet Corporation, makers of alloy castings. Built in Philadelphia, the Howmet TX was powered by a helicopter engine made by Continental Aviation, deemed by the CSI to be the equivalent of a three-litre internal combustion engine. The cars had raced a dozen times in the US, achieving a third place in the six-hour race at Watkins Glen in the hands of Ray Heppenstall, the Howmet's designer, and Dick Thompson.

Rain had fallen in the hour before the start, and most cars had switched to wet-weather tyres. Four works Porsches sped past the pits in the lead at the end of the first lap, with Rolf Stommelen ahead of Jo Siffert. But there had already been a serious accident: the Belgian veteran Willy Mairesse had

crashed heavily on the Mulsanne straight in a yellow Ford GT40 entered by Ecurie Francorchamps, a team run by his friend Jacques Swaters. In his haste to get going, Mairesse had not only omitted to secure his safety harness but neglected to ensure that he had closed the door properly. He was among the leaders when the door flew open while the car was travelling at maximum speed before the hump at the end of the straight, upsetting the aerodynamics. The car took off, sailing into the air before crashing through a stand of pine saplings and coming down on its side. Mairesse was unconscious as he was carefully removed from the crumpled machine and taken to the clinic in Le Mans for assessment of a severe head injury.¹

When Porsche's bid for the overall victory began to suffer misfortune even before the early nightfall, John Wyer's three GT40s were ready to profit. For the German team, Rolf Stommelen was in with a broken fan, Vic Elford with an alternator belt that needed replacing, Jo Siffert with a broken clutch. Two Fords also retired, but Wyer's team went into the darkness with the blue and orange car of Pedro Rodríguez and Lucien Bianchi in the lead. And now the French spectators began to dream. Four laps behind the leading Ford lay the Matra of Henri Pescarolo and Johnny Servoz-Gavin, fighting over second place with the Alfa Romeo of Ignazio Giunti and Nanni Galli. Servoz-Gavin had brought the car in after only one lap with a malfunctioning windscreen wiper. The same thing had happened when the rain came and went during night. The decision had been taken to retire when Pescarolo returned from taking a nap and jumped back in, determined to continue the fight. He was still in second place when a burst tyre damaged the car's electrics and, to the crowd's disappointment, forced it into retirement with three hours to go.

While the GT40 motored on to complete a hat-trick of Ford victories at Le Mans, Bianchi's brother Mauro was holding sixth place in his Alpine. But in mid-morning, immediately after his petrol tank had been refilled, the Belgian crashed heavily going into the Esses. The car exploded into flames, and by the time the medics reached him he had suffered severe burns which required long treatment, ending his career at the age of thirty-one. Lucien, two years older, took the chequered flag and shared the victory champagne with Rodríguez. The Mexican driver had been eighteen when Luigi Chinetti brought him to race at Le Mans for the first time in 1958. His family had endured the early

death of his equally talented younger brother, Ricardo. Now, after many adventures, he had secured the win long expected of him.

Porsche's brand-new 917 was available to anyone with DM140,000 – about £28,000 – to spare and the courage to get behind the wheel of one of the most extreme sports cars ever seen. The combination of Helmuth Bott's chassis and Hans Metzger's 4.5-litre flat-12 engine added up to nobody's idea of the sort of fast tourer that the founders of the 24 Hours of Le Mans had in mind. Nevertheless it complied with new regulations for 1968 that required only twenty-five examples to be built, half the previous minimum, in order for it to be homologated in the Group 4 category, for which engines of up to five litres were permitted.

When it made its first appearance at the Circuit de la Sarthe during the test days at the end of March, its features included adjustable flaps that appeared to contravene the CSI's regulations on moveable aerodynamic devices. The ACO allowed the 917s to compete only after Rolf Stommelen, one of the works drivers, had given a rather exaggerated demonstration of the car's instability with fixed flaps, and it was pointed out by Rico Steinemann, who had taken over from Huschke von Hanstein as Porsche's racing director, that the cars would be dangerous without those devices and that banning them would leave him with no option but to withdraw his entire team.

A tragedy during the test days saw Lucien Bianchi killed nine months after celebrating his win. He had been born in Milan, where his father, Roberto, worked during the 1930s as a mechanic on the works Alfa Romeos. In 1950 Roberto was offered a job by Johnny Claes, who ran a racing team as well as playing the trumpet with his jazz band, the Clay Pigeons, and the family moved to Brussels. There Luciano became Lucien and, with Belgian nationality, began his career in motor sports. After winning at Le Mans he was invited to join the works Alfa Romeo squad, now being run by Carlo Chiti's Autodelta team, for 1969. His job during the test weekend at Le Mans at the end of March was to try the prototype of Chiti's new three-litre T33B. He was out early on the Sunday morning when the open-cockpit car left the track towards the end of the Mulsanne straight and hit a telegraph pole, killing the 34-year-old immediately. Chiti withdrew the team from the entry list.

Three of Porsche's 917s turned up for the race, two works cars with extravagantly extended tails and one short-tailed version entered by a British gentleman driver, John Woolfe, who had raced a Chevron the previous year and bought the first 917 made available to a customer. Even before turning a wheel, the new cars from Stuttgart made the Ford GT40s, their direct rivals for overall and class honours, look like museum pieces. Stommelen's fastest practice lap of 3min 22.9sec, at an average of 148.5mph, was ten seconds quicker than Gurney's fastest time two years earlier, when there was no Ford chicane. They were backed up by the proven three-litre 908s, including a striking Hart Ski-sponsored spyder that was the chosen mount of the team's number-one driver combination, Jo Siffert and Brian Redman, whose wins at Brands Hatch, Monza, Spa and the Nürburgring had already secured Porsche the world sports car title.

It seemed unrealistic to expect Wyr's Fords to repeat their win of the previous year, even with a squad of drivers including the Belgian prodigy Jacky Ickx, a rising star of Formula 1, and Mike Hailwood, the former motorcycle world champion, respectively co-driving with Jackie Oliver and David Hobbs. The GT40's day at Le Mans seemed to be done as other manufacturers set the pace. As well as Porsche, they included Ferrari, who, after a year's absence, returned with a new three-litre prototype, the 312 P, using the V12 engine from their current F1 car. The team was now managed by Mike Parkes, whose driving career had been ended by an accident at Spa a year earlier, and Franco Gozzi, Enzo Ferrari's confidant.

One prototype that was not ready for the test days was Matra's new MS640 coupé, its super-streamlined body designed by the aerodynamicist Robert Choulet. Once completed, it was given a brief run on an airfield runway by Henri Pescarolo before the ACO, keen to see such a sensational car carry the colours of France in their race, managed to persuade the local authority to close the *route nationale* between Tertre Rouge and the Mulsanne corner so that the Matra could be given a proper high-speed shakedown. Perhaps to avoid a charge of favouritism, the three-litre Alpine-Renault prototypes were also invited. The Matra's run ended in disaster. Pescarolo had reached 150mph when the car took off and flew into the scenery, bursting into flames as it landed. After managing to crawl out, the driver was taken to hospital with two broken vertebrae and burns to his face and arms, injuries that would require three months of immobility.

The accidents that killed Bianchi and injured Pescarolo had occurred despite the addition of a new safety feature: rows of steel Armco barriers along both sides of the Mulsanne straight. At various other points around the circuit, including the exits from Tertre Rouge and the Mulsanne corner, barriers also replaced the old sandbanks and ditches, meaning that drivers would no longer need shovels with which to dig themselves out.

The race was back to its traditional mid-June date, but the start would be at two o'clock in the afternoon, in order to give racegoers – local ones, at least – time to return home to cast their votes in the French presidential election on the Sunday afternoon, called after the sudden resignation of Charles de Gaulle. And there was a decidedly untraditional sight as the flag dropped in front of what was said to be a record crowd of almost 400,000.

Jacky Ickx detested the Le Mans start so much that, remembering what had happened to his compatriot Mairesse a year earlier, he decided to make his own form of protest. When the flag fell, forty-four other drivers sprinted from their little painted circles across the track to the waiting cars. The young Belgian, however, sauntered across to his GT40 – the car in which Rodríguez and Bianchi had won the race a year earlier – as if taking a stroll down a country lane. While his rivals fired up their engines and accelerated away, he took his time climbing aboard and doing up his safety harness, last but not one to leave the pit apron. Normally, he said many years later, a driver would jump into the car and set off without buckling his belts. 'Theoretically, you'd do them up on the *Ligne droite des Hunaudières*, but at 350kph... in reality, you left it to the first pit stop.' It meant that he and his co-driver, Jackie Oliver, would have ground to make up. But the decision to secure his belts looked very good after the events of the opening lap.

John Woolfe, a Sorbonne-educated businessman who had stood unsuccessfully as the Liberal Party's candidate for Twickenham in the 1964 UK general election, started from ninth position in his 917, thanks to a time set by Kurt Ahrens, a works Porsche driver. He dashed across the track with the rest of the drivers but had trouble getting the car started. The seconds ticked by until he eventually got under way. Three and a half minutes later he was approaching the curves at Maison Blanche for the first time at around 150mph and in fourteenth place, having blasted past many of the slower cars, when he put a wheel on the grass verge. The car went into a slide and hit the barrier, a door bursting open as it slid down the track on its roof. Not having done up

his belts, Woolfe was thrown out. The car's fuel cell broke away and exploded as it lodged itself under the oncoming Ferrari of Chris Amon, who had been even slower to get away at the start. Amon was able to escape from his blazing car with only minor burns. A rescue helicopter arrived for Woolfe, but he died on the way to hospital. The general view was that, in acquiring the 917, he had taken on more than his experience equipped him to handle.

The leaders had passed in front of the grandstands for the first time when the column of smoke rose from Maison Blanche, where the wrecked cars were impeding the rest of the field. The long-tailed 917s of Stommelen and Elford, followed by Siffert's 908 Spyder and the 908 coupés of Udo Schütz and Hans Herrmann, made a brave sight for the Porsche team management. By the end of the first hour Wyer's two GT40s were not even in the top ten. Their drivers had been instructed by David Yorke, the team manager, to lap roughly fifteen seconds outside their fastest time, braking early and changing up well under the rev limit, until the shape of the race had become apparent. 'If we're still at it at daylight tomorrow,' he told his drivers, 'we'll start racing.'

It was during the extended afternoon that the Porsches began to falter. Stommelen dropped back first, with an oil leak that prefaced eventual retirement. Siffert and Redman led for several hours before succumbing to another leak in a gearbox oil line. The car of Herrmann and Gérard Larrousse had a front-wheel bearing replaced before Larrousse collided with Schütz at the Mulsanne kink, the Frenchman suffering only superficial damage to the car's bodywork while the German's car careered off the road and caught fire, destroying itself while the driver escaped shaken but otherwise unharmed.

The bands of the jazz trombonist Chris Barber, once an enthusiastic club racer himself, and the Scottish accordionist Jimmy Shand were entertaining night-time visitors to the Village as Elford and his co-driver, Dickie Attwood, held a comfortable lead in the surviving 917, while the two JW GT40s took advantage of the Porsche meltdown and crept up the leaderboard, guided into their pit stops by the waving of Yorke's torches and attended by mechanics wearing miners' lamps. Their patience was rewarded when, with three hours to go, a split gearbox casing ended Elford and Attwood's race after fifteen hours in the lead, leaving only the Porsche 908 of Herrmann and Larrousse to fight the Ford of Ickx and Oliver for victory.

Herrmann and Ickx battled it out over the final hour and a half, a 41-year-old with immense experience and a 24-year-old of infinite promise fighting at

close quarters while both nursing fears that they, too, would fail to make the finish. A malfunctioning warning light was deceiving the German driver into thinking that his brakes were almost gone, and his engine was slightly down on power after being overrevved while they were trying to make up time after their long stop. The Belgian's car was healthy enough, but he knew that he had only just enough fuel left to complete the race.

During the last hour, with the crowd enthralled by the tension of the contest, Ickx worked out his tactics. If he led out of Tertre Rouge, Herrmann had the torque and the power to overtake him as they accelerated along the Mulsanne straight. But if he managed to stay close behind the Porsche, he could jump out of its slipstream before the kink near the end of the straight and regain a lead that he could hold through the rest of the lap. Having rehearsed the manoeuvre successfully, he held his fire until what, with the two o'clock finish looming, he believed to be the last lap. It would have worked perfectly had he not got his timing wrong and crossed the line twenty seconds before the clock ticked over the hour.

Now he had to pull the same trick all over again. And he had to do it knowing that this lap would be one more than the car had ever managed on a tankful of petrol, and that Herrmann would be alert to his tactic. Crossing his fingers, he stayed in front of the Porsche as they came out of Tertre Rouge but then slowed as if he were running out of fuel, fooling Herrmann into overtaking and thus giving himself the opportunity to slot into the slipstream and repeat the routine. Again it worked, and the man who had begun the race with a saunter across the track while others were haring away now held his advantage to the finish line just 120 metres ahead of Herrmann as the tank gave up its last drops of fuel. It was the closest finish in the race's history.

A fourth victory in a row was a fine and perhaps unexpected result for Ford, and another triumph for John Wyer, with Hobbs and Hailwood completing the podium in third place. But although second place represented a severe disappointment for Porsche, the extraordinary 917s had caught the eye of an important visitor to the race, a figure whose presence had caused a stir in the paddock and around the circuit. The Hollywood actor Steve McQueen, at the height of his fame following his successes with *The Thomas Crown Affair* and *Bullitt*, was planning to make a film at Le Mans. He had a new production deal with Warner Brothers and now he had the evidence that

a dramatic finish to a twenty-four-hour race need not be the invention of a scriptwriter.

[1](#). Following brain surgery in Paris, Mairesse emerged from a coma after fifteen days and was kept in hospital for a further six weeks. He had always been seen by the outside world as an introvert of uncertain moods, intense in manner, sometimes headstrong at the wheel. Some of his contemporaries steered clear of him, although Enzo Ferrari, with whose team he spent four years, appreciated his spirit and wrote: 'He looked as though he were touched by some sacred zeal in everything he did.' His racing career over, he became even more withdrawn and sometimes aggressive. Two breakdowns were followed by a spell in a Brussels mental hospital. His wife, Dorine, took their two small sons to live with her family in Paris. Almost a year after the accident, Mairesse sat down in an apartment in Ostend and wrote letters to Dorine, to his mother and to Jacques Swaters before taking a fatal overdose of sleeping pills. He was forty years old.

CHAPTER 13

Screen time (1970-74)

Three years after San Francisco's Summer of Love, Le Mans went psychedelic. A Porsche 917 was painted in swirls of purple and lime green, looking as though it might have been commissioned by a member of the Grateful Dead. In fact the colour scheme had been dreamed up by Antoine Lapine, Porsche's current chief stylist, who had lived and worked in the US before joining the German company in 1969. The drivers were now growing their hair, if not quite to hippie length, and sporting aviator shades. Sadly, the weather did not match the hints of festivity. The thirty-eighth running of the Grand Prix d'Endurance would be among the wettest in memory and, for more than one reason, notable for an absence of good vibes.

A new decade was beginning, and with it a new era at the Circuit de la Sarthe. Charles Deutsch, the designer of trophy-winning small-capacity cars, had taken over as race director, making it especially poignant that the classes for cars of up to 1.3 and 1.6 litres were now abolished in recognition of the dangers inherent in putting cars that could barely manage 150 on a track with those capable of approaching 250mph. Each car could now have three drivers, who were permitted to make one switch to another car of the same make during the race. The maximum aggregate time one competitor could drive would be fourteen hours, with four hours the maximum for a single stint, and a mandatory one-hour rest between stints. The track was now completely encircled by a double layer of Armco barrier and the cars would carry luminous racing numbers, a boon to spectators and timekeepers.

The most momentous decision was to do away with the drivers' sprint across the track for the traditional Le Mans start. The justification was sound enough. Seat belts were in widespread use but some drivers were doing them up during the early laps, reluctant to forfeit precious seconds at the start, with unhappy and even tragic consequences. Now belts were compulsory, and the drivers could buckle up properly as they sat in their silent cars, still in herringbone formation in front of the pits, waiting for the flag to be dropped.

So Jacky Ickx had won the argument. In the columns of *Motor Sport*, the respected commentator Denis Jenkinson voiced his displeasure. Le Mans, he wrote, 'is not accepted as the greatest of all sports car races just because it runs for 24 hours, but for many other reasons, among them the whole atmosphere of the 4pm start. The build-up as the drivers crossed the track to take their positions in the circles painted on the road was enormous. With 15 seconds before the "off", a natural silence would fall over the vast crowd of spectators, for the Le Mans start was something almost sacred to motor racing.' The race, he said, had fallen flat on its face.

The honorary starter would be Dr Ferry Porsche, chairman of the company founded by his father. He had designed the first car to bear the family name: the 356, which appeared at Le Mans in 1951, winning the 1100cc class. Now, on Porsche's twentieth appearance at the Circuit de la Sarthe, the chairman could look upon a fleet of seven of the mighty twelve-cylinder 917s, some with new five-litre engines, a mixture of long and short tails, all with much improved handling and aerodynamics. Two were entered under the banner of Porsche Salzburg, one of them, with Vic Elford at the wheel, achieving the first 150mph lap at Le Mans during the practice sessions. Another – the one with the purple and green paintwork – was from the works-supported Martini & Rossi Racing, while three more came from JW Automotive, co-opted by Porsche as their official development partner in recognition of their successes of the previous two years.

Their formidable opposition came from one quarter: now that Ferrari had Fiat as a co-owner and backer, the Italian team returned to Le Mans with a 917-hunter called the 512 S, a coupé designed by Mauro Forghieri around a five-litre version of the V12 engine used in their CanAm contender. Ferrari had persuaded the CSI, after showing them seventeen completed examples, to homologate the 512 S as a sports car rather than a prototype, just like its

Porsche rival. No fewer than eleven were on the start line at Le Mans: four entered by the factory and seven by various works-supported private teams.

With seven of the ten rounds of the world sports car championship run, Porsche had already secured the title. Wyer's cars had won at Daytona, Brands Hatch, Monza, and the Targa Florio, Porsche Salzburg at the Nürburgring. A 512 S had taken Ferrari's lone victory at Sebring, barely twenty seconds ahead of a Porsche 908 in which the talented Peter Revlon, heir to the Revlon cosmetics fortune, was partnered by Steve McQueen, the car's owner, taking a step up from his previous competition experience with a Mini-Cooper, a Porsche Speedster and off-road motorbikes in preparation for starring in his Le Mans movie.

McQueen was intending to share a 917 with Jackie Stewart, until his insurance company stepped in. Denied the opportunity to drive, he received the ACO's permission to enter a 908 modified to carry cameras in order to compile real-life footage that could be used in his film, to be called simply *Le Mans*. At that stage, he and his chosen director, John Sturges, with whom he had worked on *The Magnificent Seven* and *The Great Escape*, had no script. In McQueen's mind, the narrative would be supplied by the cars and the circuit. The Englishman Jonathan Williams and the German Herbert Linge were hired to drive the camera car, which was painted blue and entered under the name of Solar Productions.

The superiority of the 917s was evident when Elford in a Porsche Salzburg 917 and Jo Siffert and Pedro Rodríguez in two of Wyer's Gulf-sponsored entries eased away from Nino Vaccarella's Ferrari. And when the Sicilian driver's engine blew up after half an hour, it presaged a disaster for the Italian team. Soon after rain had started to fall in the third hour, a single pile-up removed four of Maranello's main contenders. Reine Wisell, in a Scuderia Filipinetti 512 S, found his vision impaired and suddenly slowed at Maison Blanche, only to be hit by the works cars of Clay Regazzoni and Derek Bell, both making their debuts at Le Mans, and the second Filipinetti car of Mike Parkes. The mass collision demonstrated that while the new barriers might stop cars from hitting trees or endangering spectators, they risked exacerbating multiple shunts. Evening the odds only slightly, Mike Hailwood crashed another of the Gulf Porsches into a wrecked Alfa Romeo.

The Salzburg and Wyer Porsches duelled through the night, the Ferrari of Jacky Ickx and Peter Schetty holding station behind them until around two

o'clock in the morning, when Ickx suffered brake failure at the Ford chicane, the car somersaulting over a barrier. The driver emerged unscathed but a marshal who had been asleep behind some straw bales lay dead. Jacques Argoud, a 37-year-old Renault dealer from Saint-Brieuc, left three teenaged children and a wife who declined Ickx's subsequent offer to help pay for their education.

A puncture delayed the Elford car before its engine failed at breakfast time and then, while trying to lap several slower cars as they passed the grandstands, Siffert missed a gear and blew a four-lap lead as well as the engine, infuriating his team. All three Gulf entries were out and the surviving Porsche Salzburg car was in a lead that Hans Herrmann and Richard Attwood would hold for the remaining twelve hours, finishing five laps ahead of the Martini 917 of Gérard Larrousse and Willi Kauhsen, in turn three laps ahead of a Martini 908 driven by the Austrian pairing of Helmut Marko and Rudi Lins. There were only seven finishers in what, thanks to rain that seldom let up and was sometimes torrential, had been a miserable race.

Herrmann, now aged forty-two, had told his wife that he would retire if he won, not expecting to do so. He was happy to make good on his promise. This was his fourteenth appearance at Le Mans, all of them as a works driver for his home-town team. With Porsche he had also won the 12 Hours of Sebring, the Targa Florio and the 24 Hours of Daytona. But now it was all over; a man who started his working life as a baker's apprentice was able to concentrate on a successful business supplying automobile parts. His partner in victory, born thirty years earlier in Wolverhampton, had started his working life as an apprentice at Jaguar and competed in club races before winning the 1963 Monaco Formula Junior race, usually a stepping stone to great things. Attwood's Grand Prix career had not taken off but he had established himself as a fast and reliable performer in endurance racing; off the track, he drove a Peugeot estate car in which he clocked up 415,000 miles.

The two victorious 917s, the red and white car and the purple and green one, were taken back to Stuttgart, where they were driven from the factory to the town hall for a civic reception. After two decades of effort at Le Mans, starting with a little VW-based coupé and evolving through a series of increasingly sophisticated and imposing machines, all of which received their final fettling during race week in Georges Provost's garage in the village of Teloché, a dream of the Porsche family of engineer-managers had finally come

true. Following the departure of Ford and the eclipse of Ferrari, this was a new age. And for now it belonged to them.

The blue Porsche 908 of Solar Productions had circulated steadily throughout the twenty-four hours, gathering footage for Steve McQueen's film from its fore-and-aft 35mm cameras. For the next four months McQueen and his crew remained at Le Mans, shooting film on closed sections of the circuit with a handful of real Gulf 917s and Ferrari 512s, while using disguised Lola T70s for the crash sequences. Off the set, however, things had not gone smoothly.

When Warner Brothers pulled out of their production deal with McQueen following the sale of the studio to the Kinney Corporation, he secured new backing from Cinema Center Films, a division of CBS Television. And after director John Sturges walked out, frustrated by the lack of a proper script or characters with any measurable depth, the studio brought in Lee H. Katzin, whose background was in such TV series as *Bonanza* and *Mission: Impossible*, and made McQueen sign a contract that removed his function as executive producer, restricting his role to acting alone. Finally, a script was produced.

McQueen played Michael Delaney, a Gulf Porsche driver returning to Le Mans with the memory of involvement in a fatal crash at Maison Blanche the previous year. Thin plot strands involving the dead driver's widow and another driver and his wife were subordinated to McQueen's obsession with capturing the experience of competing in these 230mph cars. For the benefit of the cameras, they were driven that summer and autumn by such hired hands as Ickx, Elford, Parkes, Siffert, Bell, Masten Gregory, Jürgen Barth, John Miles, Herbie Müller and Rolf Stommelen.

Among the most enthusiastic of them was David Piper, a pipe-smoking farmer and car dealer whose early career had involved driving from race to race in Italy and France, paying for his petrol and hotels from the starting and prize money. Now he was supplying McQueen with the superannuated Lolas that were transformed into Porsches and Ferraris, and helping to source the real machinery where necessary, particularly after Enzo Ferrari, having heard that the film ended with a Porsche win, refused to lend his cars. Piper was on the set for weeks on end, and it was while his 917 and Parkes in a 512 were being filmed travelling – on the instructions of McQueen, in his quest for authenticity – at racing speed between Arnage and Maison Blanche that one

of his tyres deflated and rolled off the rim. The car hit the guard rail and broke up, leaving Piper with a smashed right leg. The wound became infected after not being properly cleaned and led to amputation of part of the lower leg back in England. Shooting went on without him, deep into the autumn, forcing the film crew to spray green paint on the fading leaves of the trackside trees in order to match footage shot in high summer. With Hollywood, authenticity had its limits.

In 1971 a barrier was at last erected to separate the pit lane from the track. And the final vestige of the old Le Mans start had gone, replaced by a version of the rolling start used at the Indianapolis 500. The cars would now form up two abreast, in qualifying order, and complete a lap in formation behind the race director's car. The spectacle had a drama of its own, and was certainly a safer way of unleashing a field of fifty cars; the cherished sight of the competitors arrayed in herringbone formation in front of the pits would now exist only as they lined up before being assembled on the dummy grid, as part of the pre-race ceremony.

A new formula was on its way, making this the last year of the real heavy metal. During the test weekend, the first ever lap with an average speed of 250kph – a time of 3min 13.6sec – had been recorded by Jackie Oliver in a 917. A year after registering their first win, Porsches dominated the entry list. Of the forty-nine cars that started the race, thirty-three were from the German company, eighteen of them road-going 911s, now the people's car of the Circuit de la Sarthe. Updated versions of the 917 included three from John Wyer's team and three from Count Gregorio Rossi di Montelera's works-assisted Martini International Racing.

The first Martini car, for Gérard Larrousse and Vic Elford, had a new lightweight *langheck* body designed by Charles Deutsch's SERA studio and painted in what would become the drinks company's emblematic colours: metallic silver with red and dark blue stripes. The second, to be driven by the Dutch/Austrian pairing of Gijs van Lennep and Helmut Marko, had similar livery, but with white as the base colour instead of silver, on bodywork built around an ultra-lightweight chassis made of magnesium tubes filled with pressurised gas. The third, amusing to many but repulsive to some, had bulbous bodywork painted pink to resemble a pig, with dotted lines

indicating the various butcher's cuts: *Schinken*, *Kotlett*, *Wamme* and so on. A whimsical creation of Antoine Lapine, it would be driven by Willi Kauhsen, the previous year's runner-up, and Reinhold Joest, who had finished sixth in a Ford GT40 in 1968. By contrast, the Gulf cars looked restrained in the blue and orange paintwork that had once itself seemed garish.

Since Enzo Ferrari was concentrating his racing team's resources on Formula 1, all nine Ferrari 512s at Le Mans were privately entered, the most distinctive of them wearing the blue and yellow colours of the Sunoco oil company and entered by the American team owner and former driver Roger Penske, whose engineers had revised virtually every element of the car, including its engine.

With thirty-three Porsches, ten Ferraris, two Chevrolet Corvettes, a three-litre Matra, a three-litre Ligier-Cosworth – the first appearance at Le Mans of the V8 DFV engine, commissioned by Ford and now dominating Grand Prix racing – and two 1.8-litre Lola-Cosworths, the field seemed far from the glorious heterogeneity of the recent past. But a different kind of diversity was restored by the presence, once again, of a female driver. This was Marie-Claude Charmasson, who, on beginning her career in motor sport, took the surname 'Beaumont', her father's *nom de guerre* in the Resistance. Marie-Claude Beaumont was the first woman to race at Le Mans since Yvonne Simon and Betty Haig in 1951, her entry accepted after the lifting of a ban imposed by the ACO following the death of Annie Bousquet at Reims in 1956.

Born in Grenoble, twenty-nine years old and the daughter of a garage owner who – after his wartime exploits – had competed in the Monte Carlo Rally, Beaumont had just won the French women's rally championship for the third year in a row. Now she was sharing a seven-litre Corvette entered by her compatriot Henri 'Titi' Greder, an experienced competitor in rallies, hill climbs and circuit races. With her long blonde hair and striking beauty, she became a magnet for the media.

Run in very much better weather than the previous year, and with Steve McQueen acting as honorary starter, the race began with a tussle among the 917s. Pedro Rodríguez, in one of the Gulf cars, took an early lead that he and Jackie Oliver would hold for twelve hours, ahead of Gérard Larrousse and Vic Elford in the silver Martini machine and Jo Siffert and Derek Bell in a second Gulf car, with a trio of Ferraris – led by Mark Donohue and David Hobbs in

the Penske car – trying to keep up, along with the ‘Pink Pig’ of Joest and Kauhsen.

Yet not one of those cars would finish. Apart from the Pig, which was running fifth when it ended up in the barrier at Arnage at around three in the morning with Reinhold Joest at the wheel, all succumbed to problems with engines and transmissions, the result of sustained high-speed running in warm, dry conditions. Early in the morning Van Lennep and Marko inherited a lead they would hold to the end in the white Martini-liveried car. When their brake discs had started cracking with five hours to go, they opted to use them carefully rather than risk losing all their four-lap advantage over their nearest pursuer by having a new set fitted. Despite that, they covered a new record distance of 3,315 miles at an average of 138mph, also winning the Index of Performance.

The long crescendo of Porsche’s involvement at Le Mans, which had begun twenty years earlier with the little 356 coupés, had given them a second win. Van Lennep, twenty-nine, was a Dutch nobleman who had begun racing in 1964 in Formula Vee and worked his way steadily through the racing ranks before becoming a regular member of the Porsche works team. Marko, a 28-year-old law graduate, had been a friend of Jochen Rindt during their schooldays in Graz. His win at Le Mans came nine months after Rindt’s death in a crash at Monza. Two laps behind them was the only other surviving 917, the Gulf car of Dickie Attwood and Herbie Müller. The two Porsches were the first cars in the race’s history to cover more than 5,000 kilometres. In the tenth-placed Porsche 911, Nicolas Koob of Luxembourg, Günther Huber of Austria and Erwin Kremer of Germany had become the first official three-man crew to compete in the race.

For John Wyer, whose cars had been lying first, second and third after six hours, the result was a grievous disappointment, but much worse was to come before the end of the season. First Rodríguez, his Le Mans winner of 1968, was killed at the Norisring in Germany in July, leaving indelible memories of courage and virtuosity. Then Siffert died in October in a non-championship Formula 1 race at Brands Hatch. Both men had played leading roles in a remarkable time for sports car racing, one that offered the opportunity to watch great drivers rising to the challenge of raw power.

Steve McQueen’s *Le Mans*, given its première at the end of June, should have been the era’s memorial. The shooting had run three months beyond the

schedule and had gone \$1.5 million over the \$6 million budget. Reviews were bad, box-office performance was poor and Hollywood lost its belief that everything McQueen touched would turn to gold. In the process, his own fortune was severely depleted. As an actor, he would recover with the huge success of *Getaway*, *Papillon* and *The Towering Inferno* before dying of a rare form of lung cancer in 1980, aged fifty, the failure of *Le Mans* far behind him.

‘We attempted to show in the film, rather than explain it, why a man races, the feeling he gets from it,’ he once said. Over the decades, however, the reputation of *Le Mans* started to improve when it began to be seen less as a rather vapid meditation on the life of a racing driver and more as a documentary recording in close-up the battles not so much between the humans at the wheel as between the two cars that were the real stars, the Porsche 917 and the Ferrari 512. And, of course, their battleground, the Circuit Permanente de la Sarthe.

There was a good reason for Georges Pompidou to attend the race in 1972, when he became the first president of France to accept the ACO’s invitation to take the role of honorary starter. No French car had achieved an overall win at Le Mans since 1950, and now the change in regulations, creating a Group 5 category for prototypes with a maximum engine capacity of three litres and finally removing the big Porsches and Ferraris, seemed to have cleared the way for a French revival, led by Jean-Luc Lagardère’s Matras. For the home teams, the emphasis on overall victory was the more urgent given the abandonment of the Index of Performance award, so often the preserve of the smaller French cars. The Index of Thermal Efficiency would continue, excluding prototypes and based on an arcane formula involving car weight, average speed and fuel consumption. And in order to qualify as finishers, all competitors were no longer set a target distance but required instead to reach a minimum of 70 per cent of the distance covered by the winning car in their class.

Matra’s preparation had included three separate twenty-four-hour tests at the Paul Ricard circuit in Provence with neat, low-profile open-cockpit prototypes refined by Gérard Ducarouge, the designer of Jackie Stewart’s 1969 world championship-winning F1 car. Although Le Mans would be the ninth round of the world sports car championship, this would be their first outing of the year. Four cars were entered for a squad of drivers assembled for

Lagardère by Gérard 'Jabby' Crombac, a Swiss-born journalist with long experience and good contacts. A pair of long-tailed MS 670s with full-race V12 engines would be driven by Jean-Pierre Beltoise with Chris Amon and François Cevert with Howden Ganley. A short-tailed 670 with an engine slightly detuned for better fuel consumption would be shared by Henri Pescarolo and Graham Hill. The fourth car, a year-old 660, paired Jean-Pierre Jabouille and David Hobbs. Each car had one Francophone driver and one Anglophone.

The principal opposition to the Matras was expected to come from Ferrari, whose new flat-12 312 PB, essentially Mauro Forghieri's current F1 car with two-seater bodywork, was clearly the fastest thing in Group 5 and had cleaned up all eight rounds of the sports car championship leading up to Le Mans, from Buenos Aires in January to the Nürburgring at the end of May, securing the championship with three rounds remaining. But with the exception of the 12 Hours of Sebring, those had all been six-hour races. The ability of the wickedly fast but lightweight and highly strung cars to last the full twenty-four hours was questioned, particularly after long-distance testing at Monza and high-speed runs on a closed section of autostrada between Turin and Savona exposed weaknesses.

Ferrari had entered three of the cars at Le Mans, but with less than a fortnight to go they were withdrawn, thus removing what should have been the race's most significant battle. The honour of Italy was now in the hands of Alfa Romeo's Autodelta racing team, with a trio of Carlo Chiti's tail-finned spyders. The cars had proved no match for the Ferraris throughout the season, but Helmut Marko had impressed in the Targa Florio by setting a new lap record for the forty-five-mile circuit, completing his lap in just over thirty-three minutes at a staggering average of 79mph over the twisting roads of Sicily's Madonie Mountains.

Two Lolas, painted to look like chunks of ageing Gruyère cheese, were entered by Joakim Bonnier. Sweden's first F1 star had raised £100,000 to pay Lola to design and build a pair of new Cosworth DFV-engined prototypes, drawn up by Eric Broadley with two bright young assistants, Patrick Head and John Barnard, who would later go their separate ways to build F1 championship-winning cars for Williams and McLaren. Most of the funding had come from Swiss Cheese; hence the *trompe l'œil* paintwork.

Another promising young designer, Gordon Murray, was brought in by the British enthusiast Alain de Cadenet to build a one-off three-litre prototype with a DFV engine, with backing from Duckhams, the British oil company. De Cadenet had been a fashion and music photographer before discovering, on a visit to Brands Hatch, that racing drivers were unusually attractive to girls. A week later he was back at the Kent circuit in overalls and helmet, ready to race. When a girl approached him in the paddock afterwards, he felt he had made the right career move. By 1971 he had progressed far enough to compete in a Ferrari 512 at Le Mans, which became his obsession. A year later, having failed to persuade Enzo Ferrari to sell him a 312 PB, de Cadenet asked Murray to build a similar sort of car – light, quick and agile – around a Cosworth engine and the chassis of a Brabham, the company the designer had joined after arriving in the UK from South Africa. Like Head and Barnard, Murray would soon be building cars to win F1 titles.

There would be no Porsches at the head of the field. The most potent of the privately entered cars from the Stuttgart manufacturer would be a long-tailed 908 that had belonged to Jo Siffert and had found its way after his death to the Schlumpf brothers' motor museum in Mulhouse. Reinhold Joest persuaded them to let him borrow it and have the Porsche racing department refettle it for the race, complete with a new engine, paying homage to its original owner by entering it under the banner of Siffert Racing.

The ACO welcomed a greater number of Group 4 GT cars: four Ford V8-engined De Tomaso Panteras as well as five Chevrolet Corvettes and a fleet of works-assisted Ferrari Daytonas (one of the North American Racing Team's cars only passed the test for the minimum weight when Luigi Chinetti persuaded a nine-year-old French boy who had been watching the preparations to hide in the boot, alongside a full tool box). Wanting to restore some of the race's original purpose as a test for touring cars, the organisers also encouraged entries falling into the CSI's Group 2 class for touring cars, a call answered by a trio of works three-litre Ford Capris from Cologne, for drivers including Jochen Mass and Hans-Joachim Stuck.

Those two future F1 stars were making their Le Mans debuts, which meant they would never have to face the challenge of Maison Blanche, where high-speed crashes had shaped so many races over the decades. That enigmatic, seemingly innocuous little ribbon of narrow road had been removed from the circuit. In its place came a new section of track with a series of fast curves that

would be named after Porsche, who had footed the bill for the construction work. The new bends offered a greater width and bigger run-off areas but also several changes of camber; they required more gear changes, putting extra strain on the transmission. Exiting the Porsche curves, the cars would approach the grandstands via a more complicated version of the Ford chicane, offering a safer entry to the pit lane. The new section lengthened the circuit by 150 metres; combined with changes in the regulations, it increased the fastest cars' lap times by around twenty seconds.

The three French stars of the Matra team – Cevert, Pescarolo and Beltoise – adhered to the script by setting the fastest times in practice, thus ensuring, as the president of the republic waved the tricolour, that the parade lap would be led by three blue cars with matching drivers. Pescarolo was leading at the end of the first lap – the result, he remembered, of Cevert backing off in the superstitious belief that no one who led the first lap had ever won Le Mans – but as they came round a second time Beltoise's engine blew up in a cloud of smoke under the eyes of the packed grandstands, removing what was, on paper, the team's most potent car.

Worse still for the home fans, the lead was snatched a lap later by the Lola of Bonnier, soon joined at the front by its sister car, driven by Hugues de Fierlant. The jousting with the Matras went on for several hours, but the greater thirst of the DFV engines forced the Lolas into earlier pit stops and as darkness fell on a fine evening one of them was removed from contention when de Fierlant crashed at the Mulsanne corner, while Bonnier was delayed by gearbox problems and a tyre bursting at almost 200mph. The Matra of Cevert and Ganley held the lead through the night, with Pescarolo and Hill in support and Jabouille and Hobbs climbing up to third place.

Bonnier was trying to make his way back into the top ten when, at eight o'clock in the morning, he came up behind Florian Vetsch, a Swiss garage owner racing for the first time at Le Mans in a Ferrari Daytona. Vic Elford, following Bonnier in his Alfa Romeo, saw the Swede make a tentative move as he attempted to pass the Ferrari towards the end of the fast section between the Mulsanne corner and Indianapolis. It was as if, after pulling out to overtake, he had suddenly thought better of it. The two cars touched at close to maximum speed, and while Vetsch cannoned harmlessly into the Armco barrier, Bonnier's car took off and flew into the trees. Elford stopped his car, got out and ran first to the Ferrari, which was showing signs of catching fire.

Opening its door, he realised that the driver had already made his escape. Running across to the other side of the track and scrambling over the barrier, he found marshals surrounding the wreckage of the Lola, which had exploded.

Before the rescue helicopter had reached the hospital, Bonnier was dead. Aged forty-two, born into a family of successful publishers, the son of a university professor, he had studied languages at Oxford. With a trim beard that made him a distinctive figure in a clean-shaven era, he gave BRM their first Grand Prix victory at Zandvoort in 1959. During an eight-year term as chairman of the Grand Prix Drivers' Association, he had worked on introducing safety harnesses and flameproof clothing for drivers and on making circuits less hazardous. He was also a godfather to Damon Hill, the young son of a man in one of the two Matras jousting for the lead at the time of the crash.

Graham Hill and Howden Ganley were fighting for supremacy when rain fell again close to midday on Sunday and Marie-Claire Beaumont, in her second Le Mans, was unable to stop her Corvette running into the back of Ganley's car, forcing him into the pits for lengthy repairs to the rear suspension. That settled it: Hill and Pescarolo could cruise to the finish ten laps ahead of their teammates Ganley and Cevert. The Jabouille/Hobbs car had gone out in the last hour with a broken gearbox, denying Matra a clean sweep of the podium.

Thousands of French fans invaded the track to celebrate a first home victory in twenty-two years; two days later the members of the winning team were in Paris for a reception thrown by President Pompidou at the Élysée Palace.

Pescarolo's first win at Le Mans had come when he was brought back into the team after being dropped. Remembering that he had almost given his life in one of their cars while testing at Le Mans in 1969, he felt poorly treated and had been reluctant to return, particularly when he was told that Graham Hill would be his teammate. The 29-year-old Frenchman wondered whether a 43-year-old two-time Formula 1 world champion would have the right qualities. 'At first I said, no, I don't want him. Le Mans is so different from F1. I said, what if it's raining in the night, or there's fog in the morning, do you think he'll be prepared to take the risks?'

Persuaded to set aside his reservations, Pescarolo was reassured by Hill's performance when rain and mist came down during the night. 'Graham was

intelligent and had the right approach,' he concluded. 'I think he realised that this was his last chance to win the race. He knew it was important not to have your teammate as your enemy. Not all F1 drivers, especially world champions, have understood that. We spent the week before the race together, staying in the same château. He was such a fantastic guy. And he was bloody quick, of course.' The Englishman had also become the first and so far the only man in the sport's history to win the Monaco Grand Prix, the Indianapolis 500 and the 24 Hours of Le Mans: an unofficial triple crown, but an historic one.

On the fiftieth anniversary of its founding, Le Mans produced a race worthy of its reputation. It had become recognised as one of the great sporting festivals of any given year, a magnet for fans from all over the world and an opportunity for a weekend of fun – as long as the weather was good – as well as the polishing of national and commercial prestige. To celebrate the golden jubilee in 1973, the ACO staged parades throughout the week of the cars that had built the legend of Le Mans, and whose manufacturers had in turn benefited from the race's reflected glory: Bentleys, Delahayes, Ferraris, Jaguars, Fords and many more from distinguished European and American stables. But for all the burnishing of history, the entry list for the 1973 edition contained the first hint of an intervention that would help shape the race's future. Among the three-litre prototypes was a car with an unfamiliar name: a Sigma, its chassis designed by a Frenchman, Jo Marquart, but built in Japan, powered by a Japanese engine – the Mazda rotary unit – and with two Japanese drivers, Tetsu Ikuzawa and Hiroshi Fushida, joined by a Frenchman, Patrick Dal Bo. Honda had taken part in Grand Prix racing in the mid-'60s, but this was the first Japanese participation in the 24 Hours.

The rotary engine – noisy, powerful, light in weight but poor in fuel efficiency – was invented by a German engineer, Felix Wankel, in the early 1950s and first used in production cars in 1967 by NSU and Mazda. Early problems with reliability gave it a bad reputation, but Mazda believed in its benefits and were prepared to stick with it through the decades. When Sigma entered their car for Le Mans, the ACO decided that the capacity of the Wankel engine was the equivalent of a normal 2.3-litre unit, and so classified it among the three-litre sports prototypes, the fastest cars in the race.

Its arrival was barely noticed amid the attention focused on the prospect of a battle between Matra and Ferrari. A year on from their last-minute withdrawal, the Italian team again led the world sports car championship on points with seven of the ten rounds gone, but in terms of wins they were level with Matra and Porsche on two apiece, with one for John Wyer's Gulf Mirage team. Le Mans, offering double points, could not be missed, even if Ferrari continued to harbour doubts over the durability of their 312 PB. Missing the test days, they planned their return with three cars and a multinational crew: a Belgian (Jacky Ickx), an Englishman (Brian Redman), an Italian (Arturo Merzario), a Brazilian (Carlos Pace), an Argentinian (Carlos Reutemann) and an Australian (Tim Schenken).

After seven years in F1, Équipe Matra Sports had left to concentrate on endurance racing. As if to go one better than the previous year, when they paired a French driver and a foreigner in each of their cars, now they selected an all-French squad for their four-car entry: François Cevert with Jean-Pierre Beltoise, Henri Pescarolo with Gérard Larrousse, and Jean-Pierre Jabouille with Jean-Pierre Jaussaud, all in new cars with stronger Porsche five-speed gearboxes and several rear bodywork options offering different aerodynamic solutions, plus a 1972 car for Patrick Depailler and Bob Wollek.

After the bypassing of Maison Blanche, the ACO considered a further plan to replace the *Ligne droite des Hunaudières* with a piece of track on land they owned, running parallel to the public road. But the idea was not pursued and the circuit was as it had been a year earlier when the Ferraris of Merzario and Redman took their places on the front row, ahead of the Matras, soon making it apparent that they had very different agendas. The diminutive Merzario, famous for his long hair and the cowboy hat he wore outside the cockpit, roared away into the lead, seemingly oblivious to the requirements of an endurance race. Redman was taking it easy, dropping back after the start, overtaken by Cevert, Pescarolo, Schenken, Jabouille and Depailler, and content to hover behind the lead group.

Merzario's lead lasted for two hours, until Pace replaced him and immediately suffered a split petrol tank, losing six laps while it was replaced. The Matra of Cevert and Beltoise took over, at first shadowed by the Ferrari of Schenken and Reutemann until the blue car suffered a massive tyre failure with Beltoise at the wheel and spent half an hour in the pits for repairs to the suspension. His partner took over and set about regaining places, making it

back to fifth during the night before the same thing happened again and he was forced to abandon the car out on the circuit.

Now the Ferraris appeared dominant. Schenken and Reutemann held the lead for five hours until their engine broke, after which Ickx and Redman took over. Their spell at the front lasted from three o'clock in the morning until ten, when repairs to the exhaust were followed by a longer stop for another split fuel tank to be replaced. With six hours to go, a Matra took the lead for the first time, Pescarolo and Larrousse heading the two remaining Ferraris, with the Matra of Jabouille and Jaussaud lying fourth. At noon there was a scare when Pescarolo came in to refuel but could not get going, a routine pit stop turning into a twenty-five-minute hiatus while the starter motor – one of the components that the ACO's rules said could not be replaced – was rebuilt, although the French car was still in the lead when it returned to the track.

Ninety minutes from the end, any remaining doubt over the outcome was ended when the Ickx/Redman Ferrari stopped for good with another engine failure. Pescarolo took his second Le Mans victory and Larrousse his first, covering 3,016 miles at an average of 125mph in perfect conditions throughout, 13mph down on the record set by the Porsche 917 two years earlier. Behind them, despite the repairs to the fuel tank and another forty-minute stop during the night to repair a defective clutch, came the Ferrari of Merzario and Pace, given the job of starting the race at a sprint but somehow managing to last the distance to finish ahead of Jaussaud and Jabouille. This would turn out to be the final appearance at Le Mans for half a century by an official Maranello-built prototype from the Scuderia Ferrari, the works team of a company whose cars had won the race nine times but whose founder had never paid it a visit.

In fourth place came a significant newcomer: the works Porsche Carrera RSR of Gijs van Lennep and Herbert Müller, painted in Martini's colours under a deal negotiated by the company's new sporting director, Manfred Jantke. Supervised by David Yorke, formerly of Aston Martin and JW, the same drivers had taken the car to victory in the final staging of the Targa Florio a month earlier. The latest competition version of the 911, the three-litre Carrera RSR was a fast, rugged car that had yet to be homologated as a GT and was running as a prototype.

Japan's first assault on Le Mans came to an inglorious end. The Sigma-Mazda switched between Bridgestone and Firestone tyres as the mechanics

tried to sort out handling problems, and it was running in thirty-ninth place, last but one, when its clutch gave out during the small hours, before the sun had a chance to rise in the east.

Porsche brought a new and very different noise to Le Mans in 1974: the combination of whistling and whuffling that spectators would soon come to recognise as the signature of a turbocharged engine. Those accustomed to such operative sounds as the wail of a flat-12 Ferrari, the bellow of a straight-eight Mercedes and the hysterical scream of a V12 Matra found it disconcerting, even dismaying. Compensation would come in the flames emitted by a turbo engine on the overrun as the driver slowed for a corner, a particularly dramatic sight after dark.

First used in motor sport on the Kurtis Kraft-Cummins Diesel car with which Fred Agabashian secured pole position at Indianapolis in 1952, the turbocharger appeared as a performance-booster on passenger cars from Oldsmobile and Chevrolet in the early 1960s. When Porsche adopted it for the Penske-run 917/10 CanAm car as an alternative to adding four more cylinders to their flat-12 engine, the team spent a winter sorting out the inherent problem of throttle lag before putting the opposition to the sword in 1972 and 1973.

For 1974 the turbo technology was installed in Martini Racing's latest Porsche Carrera RSR, now with 450bhp available despite the engine capacity being reduced to 2.1 litres to meet the equivalency formula, bringing it within the three-litre limit for sports prototypes. To slow it down, the giant brakes from the CanAm car were installed. The swollen rear wheel arches and full-width wing made the two RSR Turbos easily distinguishable from the fifteen other 911 derivatives that started the race.

In general, the entry for the 24 Hours was less than inspiring. The consequences of the Arab-Israeli war of October 1973, particularly the subsequent embargo by OPEC nations on exports of oil to countries that had supported Israel's allies, exerted a powerful effect on the car industry's mood. In America and Europe, the price of petrol shot up and manufacturers were forced to readjust as customers began looking for smaller, more economical cars. The endurance races at Daytona and Sebring were cancelled and the world championship series began at Monza, where the top three places in the

1000km were filled by Alfa Romeos. Any resulting Italian optimism was extinguished by Matra's consecutive wins at Spa, the Nürburgring and Imola before the French team returned to Le Mans, hoping to complete their hat-trick of wins at the Sarthe.

No Alfa Romeo or Ferrari prototypes would be challenging them. A late withdrawal removed the Alfas while Enzo Ferrari's mind was again on restoring his team's fortunes in F1. Luigi Chinetti, denied a request to buy the latest Ferrari 312 PB, got his team to cobble together his own version from a V12 engine and a chassis made in NART's workshops. The strongest challenge to the Matras would come from John Wyer's Gulf Mirages and from the less obviously promising quarter of Alain de Cadenet's DFV-engined prototype, now with much reduced sponsorship from Duckhams, renamed the De Cadenet-Ford and repainted British racing green. Its owner was unable to drive, having broken his shoulder in a motorcycle crash.

Events in the outside world had affected the size of the crowd, which was down to around 200,000, despite the French wins of the previous two years and the likelihood of a third, a probability endorsed when the Matras occupied the top four places at the end of the opening hour, with no rival able to mount a serious challenge. But as darkness began to fall, the Matra idyll was severely disrupted. First the Beltoise/Jarier car collided with a Porsche in the pits, requiring prolonged repairs. At midnight its engine blew up, around the time a similar fate was befalling the Jaussaud/Wollek/José Dolhem car. Suddenly their strength had been halved – and the Jabouille/François Migault car was dropping back with cooling problems.

The Martini Porsche Turbo of Van Lennep and Müller now inherited second place. Behind it was the De Cadenet, driven by Chris Craft and John Nicholson. The dream of the British privateers lasted barely an hour, beginning to fall apart when a bolt in the rear suspension broke as Craft was leaving the pits. Unable to return, and thus forced to undertake a repair himself, he ran back to collect the necessary parts and spent twenty-five minutes trying to put it right. Restored to the race, the car was in eleventh place when the suspension collapsed completely as Nicholson was passing the grandstands at full speed, pitching him straight into the pit wall.

If there were no changes in the top five for the last eight hours, the closing stages were not without drama. Pescarolo was many laps ahead of the Porsche when his Matra's gearbox suddenly developed a problem. The driver stayed in

the car for an hour while the mechanics completed a rebuild. When he returned to the race, it was to an ovation from the spectators. His lead had been reduced to less than a single lap, but over the final four hours he and Larrousse were able to stretch it out again and the Matra led home twenty finishers, securing a hat-trick for the team. It was the third win in a row, too, for Pescarolo, equalling a feat achieved by Woolf Barnato and Olivier Gendebien, and a second for Larrousse, capping the distinguished sports car career of the 34-year-old from Lyon, who would soon be moving into team management, eventually in Formula 1. The Martini Porsche finished second, six laps behind the first Gitanes-blue car and ten laps ahead of another, the car of Jabouille and Migault.

There were six women in the 1974 entry, the highest number since the war, and one of them, finishing thirteenth in a Porsche, was already embedded in the history of the 24 Hours. Anny-Charlotte Verney, born in Le Mans in 1943, was the granddaughter of Louis Verney, one of the founders of the race; her father became a vice-president of the ACO, and an aunt was married to a grandson of Amédée Bollée. Anny-Charlotte was beginning a ten-year career in the race with an eclectic selection of driving partners including the actor Jean-Louis Trintignant, the celebrated Ferrari collector Pierre Bardinon, Vic Elford and René Metge, three times a winner of the Paris-Dakar Rally.^{[1](#)}

Still running at the end, but unclassified because it failed to reach the required distance, was the Sigma, now sponsored by Mazda, whose rotary engine kept the car going as it survived clutch problems, fuel-pump failure and damage from a puncture. Just to get home, albeit having completed only 156 laps, less than half the distance covered by the winner, could be seen in years to come as a significant step in the history of Japanese entries at Le Mans.

^{[1](#)} In the 1982 Paris-Dakar Rally, Anny-Charlotte Verney shared a Peugeot 504 with Mark Thatcher, son of the British prime minister. Together with their mechanic, Jacky Garnier, they became lost in the desert, missing for five days and rescued only after a call from Thatcher's mother to the Algerian ambassador resulted in a military search by air and land and many headlines in the tabloid newspapers.

CHAPTER 14

Rolling thunder (1975-79)

After Briggs Cunningham and Henry Ford II, Luigi Chinetti – a winner as a driver and an entrant – was the third American to be made an honorary citizen of Le Mans. On the day before the start of the 1975 24 Hours, now seventy-three years old, he joined a parade of American racing heroes. The following day his relationship with the race lay in ruins.

His North American Racing Team had entered a mixed bag of four Ferraris: a Daytona coupé, a Daytona spyder, one of the new Berlinetta Boxers and a Dino 308 GT4, which was the one that caused the problem. A year earlier, when it had only just been introduced into the company's model range, it had run in the sports-prototype category. Now Chinetti expected it to be homologated in the GT class, competing against the Porsche 911s. Qualification had gone smoothly, and his team manager, John Baus, who had long fulfilled that role for Cunningham, had been verbally assured that all four cars met the relevant requirements. But on the day before the race the Dino was excluded from the ACO's list of starters. Chinetti and Baus were told that the car was still considered to be a prototype, and that its drivers had not met the qualifying requirement of lapping within 130 per cent of the speed of the fastest car in their class, which included Gulf Mirages. And that was when Chinetti exploded.

His contribution to the race over the decades had been immeasurable. But the ACO was firm, and the ensuing row was still going on an hour before the start, when Chinetti ordered all four NART entries to take their places on the dummy grid. Told by officials that the Dino would not be allowed to start, he

reacted by pulling all four cars out of the race, with minutes to go and the drivers already strapped in.

Charles Deutsch, the race director, responded by inviting the three cars on the reserve list – a Porsche 911 and two Japanese cars, a Datsun and the Sigma-Mazda – to take their places. A furious Chinetti told the press that he had brought his cars across the Atlantic in order to help the ACO restore the race to its former status in the wake of the damage caused by the continuing oil crisis. ‘I’ve spent a lot of money,’ he said, ‘but now it’s finished with Le Mans.’ Later he would claim that the ACO’s decision represented a conspiracy. ‘I won’t be coming back to a city that was liberated by General Patton but which now seems to have fallen into German hands.’

His cars joined the works Ferraris, Matras and Porsches among the absentees from a race run under a new set of regulations devised by the ACO independently of the world governing body, which meant that the race no longer counted towards the world championship. The effects of the fuel crisis could be seen in new regulations tailored to the circumstances: petrol tanks would be smaller, competitors would have to complete twenty laps between each refuelling stop, and there would be a prize for the finisher using the smallest amount of fuel (it would go to the two-litre Lola that finished twenty-second). How would the public respond to a race offering a BMW 2002, a couple of Ford Capris and a Mazda RX-3 in place of the factory-entered prototypes? The answer could be seen in the dismal attendance: only 80,000 spectators were present, the smallest crowd since the war.

John Wyer was now in semi-retirement, and Grady Davis, the man who had arranged the sponsorship that paid for his team, had left Gulf Oil, but there was enough of a budget left for the JW Automotive team to have one last go at Le Mans with a pair of blue and orange DFV-powered Mirage M8s under the supervision of John Horsman, Wyer’s long-time technical director. Jacky Ickx and Derek Bell would share the first car and Vern Schuppan and Jean-Pierre Jaussaud the second. Among the other teams with three-litre prototypes challenging for the overall victory was that of Guy Ligier, who had acquired the assets and some of the personnel of Matra Racing, as well as the Gitanes sponsorship. He brought three of his JS-2 coupés, one with a Maserati V6 and two with Ford DFVs, his drivers including Henri Pescarolo and Jean-Pierre Beltoise.

A new arrival was the Moynet, a coupé with a two-litre Simca engine commissioned from ex-Matra personnel by André Moynet, a man of many parts: wartime fighter ace, post-war test pilot, a winner of 750cc sports class at Le Mans in 1953 in a DB, a minister for youth in the Mendès-France government of the middle 1950s, a prime mover in the development of Matra's original sports car and, since 1971, the mayor of Biot, a pretty Provençal town in the hills above Antibes. To drive the blue and orange car, with sponsorship from Esso, he recruited three women, all experienced rally drivers but new to Le Mans. The youngest of them, the 23-year-old Michèle Mouton, had begun her career two years earlier, navigating for a boyfriend in the Monte Carlo Rally. Her father thought that she would be safer driving herself and bought the Alpine-Renault A110 with which she won the 1974 French women's rally title in the first season of what would become a legendary career.

Jean-Marie Balestre, the controversial and choleric president of the French automobile federation, was given the job of starting the race. The last car to set off was a Porsche Carrera RS, one of two entered by the Ecuador Marlboro team. Neither had qualified, but one of them was quietly pushed onto the back of the grid, behind the fifty-five official starters, with the Spanish driver Juan Fernández, a regular at Le Mans, behind the wheel. In the confusion created by Chinetti's last-minute withdrawal of NART's four Ferraris and their hurried replacement by three assorted reserves, perhaps it was thought no one would notice. And indeed no one did until the car had completed three laps, at which point Fernández was black-flagged and expunged from the official records.

In a Mirage now tuned to meet the new demands by consuming fuel at the rate of 7.25 miles per gallon rather than the 6.1 of the previous year, Ickx's pole position lap had been fourteen seconds slower than that recorded by Pescarolo's Matra twelve months earlier. The two Mirages led the race from the front row and swapped the lead until rain arrived in the morning, waterlogging the electrics of the car of Schuppan and Jaussaud and moving the Ligier of Jean-Louis Lafosse and Guy Chasseuil into second place. Pescarolo had abandoned his Ligier on the Mulsanne straight after a tyre blew, sending him into the barrier and ending his race along with his chance of a fourth straight win. The hopes of Lafosse and Chasseuil were raised when the leading Mirage stopped with an hour and a half remaining to have its exhaust system replaced on one side of the engine, but Bell was able to take over from Ickx

and complete the race, with the Ligier still a lap behind at the finish. At least there had been some excitement for the small crowd.

The twenty-seven finishers included the Moynet, brought home in twenty-first place, winning its class on its first and only outing despite spending three hours in the pits with a variety of problems. It had outlasted faster rivals, including the other car with an all-female crew, the two-litre Alpine-Renault of Marie-Claude Beaumont and the Italian F1 driver Lella Lombardi, lying sixth when Beaumont ran out of fuel at Indianapolis on its twentieth lap.

Other early retirements included a BMW 3.0 CSL – the finned and winged model nicknamed ‘the Batmobile’ – entered by Hervé Poulain, an art dealer and auctioneer. Poulain had invited the American sculptor Alexander Calder to design its paintwork. With panels of bright red, yellow, blue and white, it qualified eleventh and was up in sixth place in Sam Posey’s hands before the transmission broke. But in Munich the marketing men had spotted the promotional potential behind Poulain’s idea, and a succession of BMW ‘art cars’ would become a regular feature of Le Mans for several years. A year after its debut, the original appeared at the Whitney Museum in New York as part of a Calder retrospective.

As the effects of the fuel crisis abated, in 1976 overall consumption restrictions were lifted at Le Mans. Power and speed were back, along with Porsche prototypes, a new challenge from Renault, a revival of the annual American invasion, and the crowds. There was no more Index of Thermal Efficiency; instead, there would be a £1,000 prize for the car covering the greatest number of laps in each of the race’s four six-hour segments. As if to welcome a new era, the sun blazed down on a much greater variety of machinery and an attendance more than double the size of the previous year. Not even a new battle between the ACO and the CSI could spoil the fun.

The international governing body was insisting on separate championships and separate races for Group 6 prototypes and the new machines of the revised Group 5 ‘silhouette’ formula, based on production GTs. The ACO’s confirmation that they would be running the two categories together, along with Group 4 GTs and Group 2 touring cars, meant that once again Le Mans would not be allowed to award championship points. The ACO had also invented two classes of its own, GTX and GTP, for prototypes of GT cars.

And there was an added attempt to bring back the crowds: a relationship with the president of the Daytona International Speedway, Bill France, led to invitations being extended, complete with generous starting money, to American teams from the NASCAR stock car and IMSA sports car series, in the hope of bringing back the sort of rolling thunder associated with the Cunninghams, the Corvettes and the Fords.

Among those accepting the challenge was the veteran stock car driver Herschel McGriff, the winner of the first Carrera Panamericana in 1950, who brought his 5.5-litre Dodge Charger to be shared with his son, Doug. The crew of a second NASCAR contender, a seven-litre Ford Torino, included Dick Hutcherson, who had co-driven the third-placed GT40 at the Sarthe ten years earlier. To meet the regulations of Le Mans and satisfy the scrutineers in the Place des Jacobins, both machines had to fit equipment deemed superfluous to NASCAR's requirements: lights, wing mirrors and a windscreen wiper. The IMSA entrants included John Greenwood's vast seven-litre Corvette, cloaked in extravagantly aerodynamic bodywork, with the flags of the United States and France and 'Spirit of Le Mans 76' painted on its bonnet, linking the race with the US bicentennial celebrations, and good for 220mph on the Mulsanne straight.

For the first time since the race was restarted after the Second World War, there would be no Ferraris of any description. Having regained the Grand Prix world championship with Niki Lauda in 1975, the Scuderia was intent on maintaining its supremacy in F1, and Luigi Chinetti was still nursing a grievance over his treatment the previous year. But the Italian cars were hardly missed, and certainly not by the French, given that Renault's competitions department, now led by the former Le Mans winner Gérard Larrousse, had developed the new two-litre turbocharged Renault-Alpine A442 for Group 6, created through the merged resources of the former Alpine team in Dieppe and the Gordini engine works in Viry-Châtillon. Now in Renault Sport's new livery of yellow, white and black, it had been given a special long-tailed body for its challenge in the hands of Le Mans newcomer Patrick Tambay and the experienced Jean-Pierre Jabouille, who excited their supporters by securing pole position.

Its Group 6 rivals included Porsche, who had already won at Monza and Imola with their own new open-cockpit 936. Created by a team under the supervision of chief engineer Helmuth Bott, its chassis and other parts were

based on those of the 917, with a new version of the familiar 2.1-litre turbocharged flat-6 engine. Ickx and van Lennep, both previous winners, would share the first of the Martini-liveried cars, with Joest and Barth in the back-up machine. The Mirage operation had been sold by John Wyer to the American Ferrari and Lamborghini importer Harley Cluxton and relocated to Phoenix, Arizona; the DFV-powered M8s, entered by Cluxton's Grand Touring Cars, still had Bell and Schuppan among their drivers. Hoping for a change of luck in the Group 6 battle was Alain de Cadenet, sharing his Lola T380 with Chris Craft.

In Group 5, the 'silhouette' cars included Martini Porsche's 935, the latest version of the RSR Turbo, and a twin-turbocharged 3.1-litre BMW 'art car' for Brian Redman and Peter Gregg, its graph-paper paintwork designed by the artist Frank Stella. The ACO's new GTP class offered a little world of its own, one that would play a part in shaping the future of sports car racing. For now, there were just four cars, two of them entered by Jean Rondeau, a native of Le Mans who had begun his working life selling women's underwear before taking over a garage just outside the city. He had raced four times in the 24 Hours, without making an impression. But he had a dream, and now he had built his own car: a sleek coupé with a DFV engine, named after its sponsor, Inaltéra, a French wallpaper company whose owner shared his enthusiasm.

Another new French GTP car came from a team that would nurture a single very specific ambition: to go, one day, faster on the Mulsanne straight than anyone had gone before. The WM was the product of two Peugeot employees: Gérard Welter, the head of styling, and Michel Meunier, an engineer. Welter had built his first car at the age of nineteen, using Renault Dauphine parts and a polyester body of his own design. He and Meunier got together to build the P76 coupé, powered by a development of the 2.6-litre V6 engine used in Peugeots, Renaults and Volvos, with quiet support from Peugeot and sponsorship from BP. As with Rondeau, the efforts of Welter and Meunier would earn a loyal following among the home fans.

A team of stunt riders on motorbikes entertained the crowd on the main straight before Daytona's Bill France started the race. Ickx's Porsche snatched the lead from Jabouille's Renault on the opening lap, only to have it taken back. But the 936 quickly regained a lead that it would hold for the remainder of the race, followed by Joest in the sister car. At dusk, as the leading three held station, André Haller, a restaurateur from Strasbourg, lost control of his

Datsun 260Z at the Mulsanne kink, the car hitting the barrier and catching fire. Haller was pulled out of the blazing car but died on the way to hospital.

The American adventure was a mixture of promise and disaster. The ground-shaking noise of the Dodge Charger was silenced after two laps when the car went out with burned pistons, the result of using unfamiliar low-octane fuel supplied by the organisers. The Ford Torino's starter motor jammed during its first pit stop – under NASCAR's rules, engines could be kept running in the pits – and then the gearbox failed during the night. The car's French mechanics had been taken aback by the sight of Richard Brooks, one of its drivers, smoking a cigarette during his stints. The 'Spirit of Le Mans 76' Corvette ran magnificently in the top ten for the first two hours, until a burst tyre resulted in irreparable damage to the fuel cell. The retirement may have come as a relief to John Greenwood and his French co-driver, Bernard Darniche, since they had required drenching with cold water during pit stops to counteract the heat in the cockpit. NASCAR's heavy-metal assault would not be repeated, but the American invasion had done its job in helping to reintroduce a sense of theatre to Le Mans.

At the front of the race the main challenge to the two Porsches disappeared at around one in the morning, when a piston broke in the lone Renault's engine. Joest and Barth moved up to second until their Porsche's clutch failed at breakfast time, putting the Mirage of Lafosse and Migault in second place behind Ickx and Bell, with de Cadenet and Craft's Lola in third. That was how they stayed until the chequered flag, even though the winning car's lead had been reduced from eighteen laps to eleven by a stop to replace a split exhaust. Ickx and Porsche had recorded their third victories, Van Lennep his second. The winning car also took the prizes for the great distances covered in the first three six-hour segments of the race, with the fourth, the Prix Moët et Chandon, going to de Cadenet and Craft, whose third place was a reward for enthusiasm, persistence and the shrewd use of limited resources.¹

If the first appearance by Gérard Welter's WM ended prematurely when its fuel tank split in the early morning, Jean Rondeau's two Inaltéras enjoyed an auspicious debut. The first, in the hands of Henri Pescarolo and Jean-Pierre Beltoise, took eighth place overall and victory in the GTP class. Le Mans would be seeing more of them. But of the twenty-four cars that reached their target distance, sixteen were Porsches, between them winning four of the

seven classes in which there were finishers. Like Bentley, Ferrari and Jaguar, the German manufacturer was on its way to making its name virtually synonymous with that of Le Mans.

There was only one story at Le Mans in 1977, and Jacky Ickx was its protagonist. When the Porsche he was sharing with Henri Pescarolo was wheeled into retirement with a broken engine after a mere three hours, his race was just beginning. While the Frenchman was left kicking his heels in the pits, Ickx would be invited to join Jürgen Barth and Hurley Haywood in the second Martini-sponsored 936-77, then languishing near the tail of the field after two long stops, one to repair the fuel pump and another to replace a blown head gasket. Ushered into the car with orders to go as fast as possible and not to worry about the consequences, he began one of the great sporting comebacks.

The race had been set up as a battle for overall victory between the two Martini Porsches and three works Renault-Alpine A442s. Under Gérard Larrousse, Renault Sport was going all out for success with a driving line-up incorporating the cream of a generation of outstanding French talent plus Derek Bell, already a winner at Le Mans. A fourth car, loaned by Renault to Hugues de Chaunac's Oreca team, was in the hands of Didier Pironi and René Arnoux, two young men with *fast*-growing reputations. A test programme had been conducted in January, February and April at the Paul Ricard circuit, and unopened autoroutes and runways on military airfields were used for aerodynamic trials. And once the race week got under way, the lavishness of the preparation was even more apparent, *Autocar* reporting that the cars were ensconced in their own private paddock where the team's mechanics took their meals in plushly furnished surroundings.

In front of 170,000 spectators, most of them hoping for a French victory, the Renaults started in first, second, fourth and fifth places on the grid, but there was an immediate setback when Pironi's car caught fire on the Mulsanne straight and burned out on the opening lap, without injury to its driver. Then it was the turn of the Porsches to stumble: first the retirement of the Pescarolo/Ickx car followed by the problems afflicting the second 936. By eight o'clock in the evening, long before dark, the long-tailed works Renaults were

occupying the first three places, only a knowledge of what tricks the race could play undermining an assumption that they had the race wrapped up.

Count Rossi, the sponsor of the works Porsches, a world champion power boat racer and an Olympic bobsledder in the 1930s, had already left the circuit in dismay at his team's performance when disaster began to strike the Renaults. The third-placed car of Patrick Tambay and Jean-Pierre Jaussaud was the next to fall, the engine losing its oil pressure just before three o'clock in the morning. Bell and Jean-Pierre Jabouille had led for seventeen hours when they stopped for good with a holed piston at breakfast time. Five hours later the car of Patrick Depailler and Jacques Laffite blew its engine, concluding the final episode of a serial catastrophe.

By then the Porsche No. 4 had completed its comeback. Driving to instructions, Ickx gave it everything he had, particularly during the night. Lying forty-first at the end of the second hour, nine laps down on the leading Renault, the car was twenty-ninth an hour later, fifteenth an hour after that, in the top ten by nightfall, third at three o'clock in the morning, second at five o'clock and in the lead with six hours to go. Ickx would drive the equivalent of five Grand Prix distances, making ten seconds a lap over the Renaults in the dry and more than that through the drizzle that came with the dawn and the heavier rain that fell in the morning. Barth, a Porsche engineer, and Heywood, a native of Chicago racing for the first time in Europe, chipped in when required. But it was really a one-man show, or as close to it as the modern regulations allowed.

And yet there was drama left to enliven the final stages. Ickx, having completed his permitted aggregate time at the wheel, was forced to let his co-drivers bring the car home, maintaining a lead of nineteen laps over their nearest rival, the Renault-powered Mirage of Vern Schuppan and Jean-Pierre Jarier. But with forty-five minutes to go, smoke was pouring from the Porsche's exhaust as Barth brought it slowly into the pits. A holed piston was diagnosed, and a solution hastily invented. In less than half an hour the affected cylinder was blanked off and the turbos were disconnected. The team had to wait until ten minutes to four before crossing their fingers, restarting the engine, now down to five cylinders, and sending Barth out again, this time with a clock taped to the dashboard. The regulations required him to complete a final lap within a certain percentage of its predecessor. If the car lasted, those two slow but carefully timed laps would allow the Porsche to qualify as a

finisher – and as the winner, still with a lead of eleven laps even after the long delay, following one of the most extraordinary drives in the race's history.

The surviving Mirage, although delayed by a broken alternator bracket and bodywork damage from a spin, finished second, sixteen laps ahead of the privately entered Porsche 935 of Claude Ballot-Léna, on the podium for the first time in thirteen Le Mans starts, and Peter Gregg, a Florida car dealer. But the Porsche was being harried by the Inaltéra of its designer, Jean Rondeau, and Jean Ragnotti, a former stuntman who had doubled in films for Alain Delon and Jean-Paul Belmondo, and the De Cadenet-Lola of Craft and de Cadenet himself, with a portrait of Queen Elizabeth II on the rear wing to celebrate her silver jubilee. At the finish, only ninety-two seconds – less than half a lap – would cover the third-, fourth- and fifth-placed cars.

For Ickx, a fourth win matched the record set by his compatriot Olivier Gendebien between 1958 and 1962. It was also the first race in which the winning car had been crewed by three drivers, given that no one had ever been able to confirm the participation of Ed Hugus alongside Masten Gregory and Jochen Rindt in 1965. During his climb back up the field, Ickx had smashed the lap record by almost three seconds. Some thought back to his arrival in Formula 1 in 1968, aged twenty-three, when he looked like a world champion in waiting. Handsome and charming, he was a smooth stylist, brilliant in the rain, a lover of real road circuits and a fighter against the odds. But somehow, in single-seaters, the momentum had left him. This, now, was how he would be remembered.

Was it a bad omen for Renault, a year after the retirement of their entire team of highly fancied cars, that the French hero invited to act as the official starter in 1978 was Raymond Poulidor, the widely adored but perennially unlucky cyclist, known as *l'éternel second*? But on their return to confront Porsche at the Sarthe, they were leaving nothing to chance. The test programme was increased, with many sessions at Paul Ricard and on a banked oval in Columbus, Ohio, aimed at resolving the weakness that had resulted in broken pistons in all three works cars in 1977. Two of the cars arrived with forward-hinged Perspex bubble canopies over the drivers, with just a small aperture immediately above their helmets. Although one of them reached 228mph in practice, 12mph more than the same car achieved without the canopy, Jean-

Pierre Jabouille and Patrick Depailler both decided against using it on the car they were sharing, a turbocharged 2.1-litre A443, disliking the reduction in visibility, particularly at night.

Having fought hard for an unexpected win a year earlier, the Martini Porsche team arrived with three open-cockpit 936s, two of them with lengthened bodywork incorporating a rear wing designed in partnership with the Dornier aircraft company. One of the cars would be crewed by the reunited partnership of Ickx and Pescarolo. Accompanying the Group 6 cars in the Martini Racing squad was the latest 935-78, a Group 5 coupé with outlandishly swooping extended bodywork that had earned it the nickname 'Moby Dick' when it won at Silverstone in May. Its 3.2-litre turbo engine gave it a speed of 227mph on the Mulsanne straight during qualifying, making it the team's fastest car in a straight line. It had needed a new engine after blowing up during Thursday's practice session, the result of overheating when a mechanic driving it to the circuit from the team's base in Teloché became stuck in a traffic jam.

Ickx put his 936 on pole, but Renault's tactics seemed clear from the start when Jabouille shot away from the second spot on the grid and had a lead of twelve seconds when he came round to complete the first lap. One reason for the huge gap became apparent at the end of the second lap, when two Porsches stopped at the pits, the cars of Ickx and Hurley Haywood both suffering from sticking throttle linkages. While the problems were sorted out, the Renaults forged ahead and by ten o'clock the yellow cars were in the first three positions, just as they had been a year earlier.

When Ickx and Pescarolo lost a further forty-five minutes while their crew sorted out a broken fifth gear, Porsche put Ickx into the car of Bob Wollek and Jürgen Barth before midnight, hoping for a repeat of 1977. They were rewarded when it made its way to second place, helped by the retirement of Derek Bell and Jean-Pierre Jarier with a broken transmission in their Renault. Ickx returned to the pits for half an hour while fifth gear was replaced, a repeat of the fault that had delayed his original car. He dropped down to fourth but was up to second again by ten o'clock in the morning, after the leading car of Jabouille and Depailler stopped with the same sort of piston failure that had laid waste to the entire Renault team twelve months earlier. But the French team still had one car at the front, and it would last the remaining six hours in the hands of Jean-Pierre Jaussaud and Didier Pironi, who survived to give the

Régie Renault the victory into which so much emotion had been poured and so much effort expended. This time the pursuing Porsches would not be allowed to scavenge a win. Ickx, Wollek and Barth had to be content with second, followed home by Haywood, Peter Gregg and Reinhold Joest.

After bringing the winning car across the line, Pironi had to be lifted from the cockpit, almost fainting from heat exhaustion. By the following morning he had recovered sufficiently to drive the car in celebration through the centre of Paris, his co-driver squeezed into the minimal passenger space as they made their way to the Pub Renault, the company's former showroom on the Champs-Élysées. In 1906 a Renault driven by Ferenc Szisz had won at Le Mans in the first Grand Prix ever held, staged by the Automobile Club de l'Ouest. The victory of 1978 provided a satisfactory climax to a three-year campaign in which national prestige was at stake. And after that triumph, with mission accomplished for the modern heirs to the pioneering Louis Renault, it was time to set different targets.

Until the distinctive figure of David Thieme came calling in 1979, Porsche had planned to follow Renault into retirement from Le Mans, intending to pursue other projects. The American in the broad-brimmed black hat, the silver-framed sunglasses and the sharply trimmed beard arrived in April, only two months before the race, offering enough money to make it worth Porsche's while to dust off a couple of the 936 Group 6 cars, paint them in the colours of their new benefactor's company, Essex Petroleum, check the availability of their usual star drivers and fill in the ACO's entry forms. Thieme promptly arranged a launch party for the new team at the Ritz in Paris.

On arrival at the Circuit de la Sarthe, the newcomer explained his motives to a reporter from the Associated Press. 'My company is one of about 40 small independents,' he said. 'I want Essex to be No. 1 in the phone books of all the big companies. The whole operation is aimed at perhaps 250 people in the world.' No doubt the ACO were grateful for the return of Porsche's charismatic cars to fill out the depleted Group 6 ranks, along with an A-team of drivers: Jacky Ickx with Brian Redman in one car, Bob Wollek with Hurley Haywood in the other. Grateful, too, for the kind of guest always welcome at Le Mans: an American seemingly with dollars to burn.

Before Thieme's arrival, Porsche would have felt reasonably confident of their cars winning the race anyway, thanks to the presence of no fewer than fourteen 935s entered in the Group 5 category. Development of the turbocharged coupé had been taken over by various private entrants, some of them – like the team run in Cologne by the brothers Erwin and Manfred Kremer – given works support. The Kremers had been tuning and preparing Porsches for racing since the beginning of the decade, but the 935 had become their special subject, to the extent that their variation on the basic car had been given its own suffix. The 935-K3 was to be driven by Klaus Ludwig with Don and Bill Whittington, brothers from Lubbock, Texas. A second Kramer car would be co-driven by 'John Winter', a pseudonym disguising the identity of Louis Krages, a businessman from Bremen who, like many before him, preferred to hide his recreational activities from a disapproving family.

The real name on most lips, however, was that of another American in a Group 5 Porsche: Paul Newman, the Hollywood actor whose hits included *Cool Hand Luke*, *Butch Cassidy and the Sundance Kid* and *The Sting*. At the age of fifty-four, Newman was hoping to succeed where Steve McQueen had failed by actually taking part in the race. His career as a driver began after he had taken lessons in 1969 for the filming of *Winning*, in which he played a competitor in the Indianapolis 500, and throughout the 1970s he won real-life championships in Datsuns and a Triumph TR6. The 1979 24 Hours was to be his first experience of European racing, partnering Rolf Stommelen and Dick Barbour, a San Diego Porsche-Audi dealer, in one of Barbour's four 935s. For the team, the problem was holding off paparazzi even more interested in the presence of Newman than in the very tanned girls in extremely skimpy bikinis standing around to promote the car's sponsor, Hawaiian Tropic sun lotion.

The city of Le Mans was expanding, and the creation of a southern ring road required modifications to the circuit at its north-eastern corner to incorporate a new roundabout. Tertre Rouge was reshaped to become a faster double-apex bend dropping down and straightening out where the row of plane trees began. Bob Wollek set the fastest practice time, with Ickx second, giving Thieme's company the kind of exposure he had paid for when the two Essex Porsches set off on the warm-up lap at the front of the line-up.

The start had been brought forward to 2 p.m., to give spectators a chance to go home on the Sunday and vote for France's representatives in the election for the first European Parliament. Ickx and Wollek jumped into the lead,

settling down ahead of the Mirage-Fords of Bell and Schuppan, although the order of the two Porsches was reversed in the second hour when Ickx's stop for fresh tyres was prolonged by brake adjustments. After Redman had taken over from Ickx, a tyre blew at the Dunlop curve, forcing the Englishman to run almost a full lap very slowly on three wheels before the mechanics could spend the best part of an hour repairing the damage to bodywork and radiators.

Heavy rain began to fall during the night, Ickx gradually working his way back into the top ten before the car stopped out on the circuit when the belt driving the fuel injection broke. Far from the pits, Ickx tried to fit a spare that was stowed in the car, but it came off as soon as he attempted to set off again. A mechanic, illegally despatched with another belt, tossed it across the track to the driver and Ickx was able to restart. But the outside assistance had been spotted and the car was disqualified. Wollek and Haywood kept the other car in the lead until their fuel injection equipment also required attention, dropping them down the field. They were back in second place when the problem recurred, sending them into retirement.[II](#)

This should have played into the hands of Harley Cluxton's Mirage-DFVs, their entry bankrolled by a collective of 250 French Ford dealers. The M10 of Bell and Hobbs spent three hours of Saturday evening in the lead, but the second car, with Jaussaud at the wheel, lost four hours while gearbox problems were sorted out and was eliminated by the officials at half-distance for failing to meet its target distance. Schuppan was then switched to help out the leading car, only to have the lights fail as he entered the Porsche curves at around midnight, forcing him to spin into the barriers. Repairing the damage took almost an hour, but then rainwater got into the electrical system and Bell was unable to get the car going at the end of the final pit stop.

And so the race fell into the lap of the Group 5 Porsches, with the Kremer team as the main beneficiary. With help from Ludwig, a Kremer regular who had made his name in the German touring car series, the Whittingtons became the first brothers to win Le Mans, Don playing a significant role when the drive belt to the fuel pump broke out on the Mulsanne straight with three hours to go. There was a spare, but no spanner with which to fit it, so the elder Whittington improvised a solution with a length of duct tape. It cost them ninety minutes, and much of a thirteen-lap lead, but they held on.[III](#)

Hopes of the publicity bonanza that would come from a win for Paul Newman dissolved when a wheel bearing failed and the hub-nut seized, costing them twenty minutes. Their Porsche crawled across the finish line with a broken piston, salvaging second place, seven laps behind the winner. Two laps further back came a second Kramer car, which had recovered from a broken driveshaft. Each of the top three finishers had suffered lengthy delays, and Sunday's rain also helped ensure that the winning car's average speed for the twenty-four hours – 108mph – was the slowest for twenty years. Newman's participation, however, had kept the interest high, and his quiet refusal to play the Hollywood star impressed those initially sceptical of his intentions.

He was not the only participant from the world of entertainment. Two figures from the world of British rock music were making the first of their many appearances at Le Mans. Nick Mason was best known as the drummer with Pink Floyd, but his father had been the prolific director of motor racing documentaries in the post-war years, including one recording the Mercedes victory at Le Mans in 1952. Bill Mason bequeathed to his son a love of racing, and over the years the royalties from *The Dark Side of the Moon* and other hit albums would subsidise a priceless collection of historic cars. Nick Mason had also been bitten by the bug of Le Mans at an early age: his debut would be in a two-litre Lola-Cosworth run by the Dorset Racing team, finishing eighteenth out of twenty-two and winning the Index of Fuel Consumption.

His manager, Steve O'Rourke, had trained as an accountant before taking over the business affairs of Pink Floyd at a time when no one could imagine the scale of the fortunes to be made as rock music entered the age of albums and arena shows. O'Rourke, too, finished the race, coming twelfth in a Ferrari 512 Boxer shared with Jean Blaton, the part-time jazz guitarist, driving at Le Mans for the last time under the alias 'Beurlys' at the age of forty-nine, having achieved one second place and four thirds in fourteen appearances.

And in a year when celebrity seemed to be a leitmotif, the art dealer Hervé Poulain had pulled off a coup by commissioning Andy Warhol to decorate the latest BMW 'art car'. Unlike his predecessors, Warhol painted it himself in a warehouse in Bavaria, applying bold splodges of glossy crimson, aqua, emerald and dusty yellow, with white squiggles. It was said, perhaps truthfully, that the job took him twenty-four minutes. After heavy rain had done its worst, the 3.5-litre M1 Procar ended up looking like a very different sort of art object – perhaps something thrown together from the junk bin in the name of *arte*

povera. But the attention to aesthetics did not slow it down on its way to sixth place in the hands of Poulain, Manfred Winkelhock and Marcel Mignot. Later it was restored, using spare panels Warhol had also painted, and the car went on to a second life, sent around the world on BMW promotions, its value almost certainly astronomical since, in 2022, a Warhol silkscreen portrait of Marilyn Monroe was sold at auction for \$195 million, making him the most valuable of all twentieth-century artists. Unlike most of Warhol's output, produced in series by assistants in a studio he called the Factory, BMW's Art Car No. 4 really was unique.

I. For François Migault, a native of Le Mans, second place overall in the Mirage would be his best result in twenty-four appearances in the race, competing in seventeen different makes of car and with thirty-eight different co-drivers between 1969 and 2002, when he made his last appearance at the age of fifty-seven. In 2012 his death from cancer at the Château de Bellefille in Parigné-l'Évêque, where he hosted teams setting up a base for the 24 Hours, ended an abiding hope of competing at Le Mans for a twenty-fifth time, sharing the drive with one of his sons.

II. For David Thieme, failure at Le Mans prefaced bigger disasters to come. In February 1981 his sponsorship of the Lotus Formula 1 team for a second season was announced with a gala at the Royal Albert Hall in London, where Ray Charles sang to 800 guests, including Margaret Thatcher. Two months later Thieme was arrested and charged with committing a \$7.6 million fraud against the bank Credit Suisse, his company's main backer. The outcome of the subsequent legal action between Essex Petroleum and the bank was never made public and his whereabouts over the next forty years would remain a mystery. In the words of the journalist Joe Saward, 'his strong desire to be in the limelight had been replaced by a strong desire to be utterly invisible'.

III. In 1986 the Whittingtons were accused of financing their racing through illegal activities. Bill, the younger, was jailed for fifteen years after pleading guilty to tax evasion and smuggling marijuana into the US; he was killed in 2021 when his twin-engined plane crashed in the Arizona desert, the cause of the accident never determined. Don pleaded guilty to money laundering and was handed an eighteen-month sentence. In 2009 he sued the Indianapolis Motor Speedway Museum for the return of the 1979 Le Mans-winning Porsche, which he claimed had been handed to them on loan. The US Court of Appeal found in favour of the museum, which provided evidence that it had been a donation.

CHAPTER 15

A different courage (1980-84)

For all but a few gentleman drivers who paid for their entry and could choose their hours of work, driving at night had always been intrinsic to the challenge of Le Mans. What the competitors in 1980 could not have expected was for the race to start in near-darkness, as it did when a thunderstorm hit the circuit while the cars were on their pace lap. The actress Mireille Darc, accompanying Alain Delon on a visit to the pits, stood out against the gloom in a bright red waterproof poncho. There would be another twilight-of-the-gods downpour the following afternoon as the race entered its closing stages, but the very end came amid sudden sunshine with an explosion of euphoria and pride.

For Jean Rondeau, dreams nurtured since childhood came to fruition in a victory for a car bearing his name, with the constructor himself sharing the driving. The Rondeau M379 had been conceived and put together at his workshop in Champagné, on the western outskirts of Le Mans, close to the start of the first Grand Prix in 1906. The village had often hosted teams preparing for the 24 Hours, but never with such joyous results.

Like countless small boys, Rondeau had spent hours drawing pictures of racing cars. As he began following the sport closely, his heroes were the drivers Jean Behra and Stirling Moss. On leaving school he took many small jobs, saving up the money that enabled him, at twenty-one, to put down a deposit on a Renault R8 Gordini, which he promptly wrote off in his first rally. Raising further cash by persuading his mother to remortgage her house, he

bought a race-prepared Mini. At twenty-three he reached the final of the Volant Shell competition to find the best young French driver, and he entered Le Mans for the first time in 1972, in a two-litre Chevron. Three years later he built the first of his own cars, and a series of class wins between 1976 and 1979 earned them a reputation for withstanding the rigours of a twenty-four-hour race. In four years at Le Mans, ten of his cars had started and nine had finished.

The latest Rondeau's Cosworth DFV engine and Hewland gearbox had been made in Britain and race-prepared in Switzerland, but the rest of the car was all French. The chassis was designed by Daniel Ménage and constructed by a specialist workshop in the Auvergne, fitted with bodywork drawn up by Jean-Philippe Desmottes. The components were assembled in Champagné, where Rondeau enlisted enthusiastic help from teenaged engineering apprentices enrolled at the school set up in Le Mans at the end of the war by the management of the local Renault factory.

Working with a core team of eight people and a total budget of around £200,000, Rondeau entered three cars, two in Group 6 to be driven by Henri Pescarolo, Jean Ragnotti, Jean-Pierre Jaussaud and himself, and a third car, 100kg heavier, in the GTP class, to be run by a Belgian team for the brothers Jean-Michel and Philippe Martin and the experienced British driver Gordon Spice. 'We won the GTP and Group 6 last year, so why not overall victory this time?' Rondeau mused in an interview with *Le Maine Libre* on the eve of the race. 'There are ten cars that could win, but Le Mans and logic are often two different things.'

In an attempt to equalise the chances of entrants in the many different categories, the ACO restricted the fuel capacity of all cars to 120 litres (twenty-six gallons). The refuelling equipment would now fill tanks at the much slower rate of fifty litres per minute, so that a fill-up would take two and a half minutes – four times the previous average. There would be a minimum of twenty-five laps between refuelling stops, meaning that the cars would have to achieve around seven miles per gallon, thus placing thirsty turbocharged engines at an immediate disadvantage. To encourage reliability, eliminate the use of special qualifying engines and contain costs, entrants would now be forbidden from replacing engines or gearboxes between the start of the single qualifying session on the Thursday and the end of the race on Sunday afternoon. Alain Bertaut, a former Index of Performance winner

and now the president of the ACO's sporting commission, explained the changes: 'We want to make the race not just a test of endurance but an opportunity for engineers to create benefits for all motorists over the next ten years. The constructors are with us, almost unanimously.'

To ensure the competence of all drivers to take part in such a demanding event, each car's qualifying time would now be taken as the average of the best laps of each of its designated drivers. That average would have to be within 110 per cent of the average of the three fastest cars in its class, and within 130 per cent of the average of the three fastest cars overall. A carefully drafted rule, intended to reduce the disparity between the fastest and the slowest throughout the field, immediately invited abuse by the unscrupulous and the desperate. A certain amount of helmet-swapping went undetected by the officials, while some three-driver teams were forced to drop their slowest performer in order to meet the required average.

For the organisers, the good news was that they would again be welcoming an open-cockpit Porsche in Martini colours, to be driven by Jacky Ickx with Reinhold Joest. But it was not quite what it seemed. While waiting for the new set of regulations that would come into force in 1982, Porsche had withdrawn from Group 6 racing. The company had just recorded the first loss-making year in its history and in one of the last acts of his ten-year presidency, Ernst Fuhrmann made the controversial decision to move on from the 911, leaving behind the tradition of cars with air-cooled engines located behind the driver; their official entries for the 1980 race were three modified 924 Carrera coupés, front-engined cars with water-cooled two-litre turbo engines, running in the GTP class. But when Joest, a favoured customer, asked to borrow one of the 936 prototypes that had won the race in 1975 and '76, instead he was offered the chance to use various bits from the factory to construct a replica of his own, with financial support from Martini Racing.

After an opening hour in which the cars raced through thunder, lightning and hail, the rain abated and the track began to dry out. The new qualifying system had put the Rondeau of Pescarolo and Ragnotti in pole position, but John Fitzpatrick established an early lead in the Kremer 935, ahead of Bob Wollek in Georg Loos's 935 and Hans-Joachim Stuck in a BMW M1. Ickx had chosen to take it steadily, and not until eight o'clock at night did he and Joest work their 936 into the lead. At dusk, however, Ickx had a nasty surprise when the fuel injection pump belt broke out on the circuit – the same problem he

had experienced twelve months earlier. This time he was able to make repairs and carry on, dropping to sixth but benefiting from many retirements as he fought his way back during the night, finally retaking the lead from Rondeau and Jaussaud.

The celebrity drivers were having mixed fortunes. Mark Thatcher had been called to share a two-litre Osella-BMW with Lella Lombardi when Vittorio Brambilla, the Italian woman's usual partner, was required for testing duty by the Alfa Romeo F1 team. A troubled race came to an end with eight hours still to go when he spun at Tertre Rouge, the engine died and the starter motor refused to bring it back to life.

Paul Newman had not returned, but one of the Kremer brothers' Porsche 935s would be driven by Jean-Louis Trintignant, the stage and film actor who had played a racing driver opposite Anouk Aimée in Claude Lelouch's *A Man and a Woman*, a worldwide hit in 1966; he was the nephew of two famous racing Trintignants – Maurice, a winner at Le Mans in 1954 and a double winner of the Monaco Grand Prix, and Louis, who had been killed in the 1933 Grand Prix of Picardy. A regular competitor in rallies for several years, he had been allowed into the race at the ACO's discretion, despite his slow lap times in practice. His professional co-drivers, Anny-Charlotte Verney and Xavier Lapeyre, shouldered most of the burden, and their car was inside the top ten when the 50-year-old star of Bernardo Bertolucci's *The Conformist* and Eric Rohmer's *My Night with Maud* took over for his second stint early on Sunday morning, only for a tyre to burst and send him into a spin on the Mulsanne straight, damaging the rear wing against the barrier. 'It gave him a scare,' Verney remarked. After he managed to get it back to the pits for a repair, she took it out and the gearbox broke. 'It was a real pity,' she said, 'because the car was going well and third place might have been possible.'

A win for Ickx, Joest and the Martini 936 seemed inevitable until ten o'clock on Sunday morning, when fifth gear failed and had to be replaced, costing them twenty-five minutes. That put Jaussaud and Rondeau back in front, although their lead looked temporary as the Porsche started to chase them down once more and eventually got itself back on to the same lap. They were saved by the final rainstorm and by Ickx's decision to change to wet-weather tyres just before the rain stopped, forcing him to see out the remainder of the race on unsuitable rubber and putting him almost two laps down on the winning car. No one could call it an easy win in a race that,

thanks to the changing conditions, had featured thirty changes of lead. Later Rondeau would pay tribute to the 43-year-old 'Papy' Jaussaud, whose night-time duel with Ickx had enabled them to stay in touch with the Porsche.

'Le jour de gloire est arrivé!' Under the front-page headline of *Midi-Libre* on the Monday morning, a photograph showed Rondeau and Jaussaud being carried shoulder-high by the crowd from their car to the podium. The following day the artisan-constructor and his drivers and volunteer mechanics made the journey to Paris, where they were received at the Élysée Palace by President Valéry Giscard d'Estaing. 'I don't know if he's a fan of motor racing,' Rondeau said afterwards of their conversation, 'but he certainly showed a grasp of what we do and what we've achieved. He recognised the human dimension and the disparity between our resources and those of our rivals. I told him I was only sorry that the car wasn't entirely French.'

Bored by school, the young Jacky Ickx had wanted to grow up to be a gardener or a forester. He hated the classroom and loved the open air. When his father, a well-known motor sports journalist, invited the great drivers of the 1950s to their home in Brussels, Jacky was polite but uninterested. It was only when he was given a little trials motorbike, against the promise of greater effort at school, that something clicked. 'I liked showing off,' he remembered, 'and I got the chance to compete in little local events. I found that instead of being bottom of the class in school, my *moto* gave me the chance to be first at something.' At nineteen he became a professional racing driver. 'I broke a lot of cars, but I was fast enough to be forgiven for my mistakes.'

His Formula 1 career lasted from 1967 to 1979, after which he retired from racing, with four Le Mans wins and eight Grand Prix victories to his name. But a year later he responded to Reinhold Joest's invitation to join him at Le Mans, and now here he was, another year further on, back with the Porsche works team, sharing one of two brand-new 936/81s with Derek Bell, his partner in the victory for Mirage in 1975. His enthusiasm for racing – in this race, at least – had been renewed.

Peter Schutz, Porsche's new chief executive, rejected the conservative policies of his predecessor, Ernst Fuhrmann, and ordered the company to return to Le Mans in 1981 with a proper contender rather than variations on the front-engined 924. The new open-cockpit car was a stopgap, the precursor

of a coupé being prepared for a set of FIA regulations to be introduced in 1982. The heartbeat of the 936/81 would be provided by a turbocharged 2.65-litre flat-6 engine originally designed for Porsche's aborted entry into IndyCar racing a year earlier. For Le Mans it was mated with a four-speed gearbox borrowed from their dominant CanAm sports car, more rugged than the unit whose fifth gear had gone missing on several occasions in previous editions of the 24 Hours.

Bell was a veteran of Le Mans but a newcomer to Porsche. When they approached him, he already had a deal with Steve O'Rourke to share the Pink Floyd manager's BMW M1. O'Rourke agreed to release Bell in exchange for a little support for his own car. Bell was happy to be reunited with the Belgian. 'I knew Ickx had good luck,' he wrote in his autobiography, 'so I wanted to be around to share in it.'

In what seemed to be a transitional year, the ACO ensured a large field by opening up their race to seven categories and twelve classes of cars, leading to an increase in the number of complaints about incidents caused by the wide variation in speeds. Safety cars were being used at Le Mans for the first time, twenty years ahead of their appearance in Formula 1, with three Mercedes saloons stationed around the track to slow the competitors while wrecks and debris were cleared away.

'Is this the start of a golden era?' *Autocar* asked in their preview of the race. If so, building a brand-new Porsche 917K, a 12-year-old design, seemed an odd way to start it off. But Erwin Kremer thought he had spotted an opportunity to take advantage of the abolition of the capacity limit and created a new chassis, copied from that of an original 917 housed in a British motor museum, to take a five-litre flat-12 engine supplied by the factory. Its appearance would help celebrate the thirtieth anniversary of the company's Le Mans debut, in the presence of Dr Ferry Porsche.

The race began at 3 p.m. in order to give spectators time to get home and vote on the Sunday afternoon in another French presidential election. The ACO had dropped the complicated qualifying rules adopted twelve months earlier; now the grid was again decided simply by the fastest lap recorded in each car. Ickx set the pole-position time and established an early lead and from the fourth hour he and Bell were never challenged in a completely trouble-free run, leaving their rivals to breathe their exhaust fumes, perhaps mingled with a whiff of Jules, the Christian Dior fragrance for men whose logo

was painted all over the Porsche's bodywork. Two DFV-engined Rondaus echoed the previous year's triumph by finishing second and third. But the celebration of the podium places and a victory in the GTP class were muted by an earlier tragedy that befell another of the team's cars in the second of two major accidents that scarred the race in its opening stages.

First Thierry Boutsen was halfway round his seventeenth lap when his WM left the track at over 200mph just after the Mulsanne kink. The car ended up on the wrong side of the barrier, its rear half completely detached. Boutsen was unhurt, but the flying debris killed one marshal, Thierry Mabillat, and injured two more, one of whom lost an arm. Then the Rondeau of Jean-Louis Lafosse was on its twenty-ninth lap when the car turned sharp right into the barrier next to a marshals' post on the Mulsanne straight and bounced back across the track into the barrier on the other side, destroying itself and killing the driver instantly, while two more marshals were injured. Later examination of film and photographs suggested that Lafosse had already damaged the front of the bodywork in a way that might have contributed to the loss of control. The owner of a company that sold alloy wheels, he was taking part in his tenth Le Mans and had finished second in 1975 with Ligier and in 1976 with Mirage.

For the first time in the race's history, a full-course yellow was imposed, the field following the safety cars at a reduced speed for almost half an hour. There were teething problems with radio links, and confusion when one group of cars which had been given the green light to resume racing caught up with another bunch of competitors still running under orders at around 50mph. But the new system allowed marshals to work in relative safety as they cleared up after the two huge crashes.

Sixth place for Anny-Charlotte Verney, co-driving an American-entered Porsche 935-K3, was the best finish for a woman since Odette Siko in 1932. The retirements included the 42-year-old NASCAR legend Cale Yarborough, the son of a South Carolina tobacco farmer, who crashed his Corvette at Arnage in the first hour. The Kremer team's replica Porsche 917K was a disappointment, slow even in the hands of Bob Wollek and finally retiring after a broken pipe fatally starved the engine of oil. Steve O'Rourke hired David Hobbs and Eddie Jordan to do the early stints in his BMW M1 while he watched Pink Floyd begin the first of their final five nights of performing *The Wall* together at Earl's Court in London before he flew to Le Mans, where

there was time for him to spend a couple of hours behind the wheel before the engine failed in the late morning.

As the dust settled on the race, the locals could go home to cast their votes, removing Valéry Giscard d'Estaing and making François Mitterrand the first socialist president of the Fifth Republic. The margin, 52 per cent to 48, was rather narrower than the gap between first and second at Le Mans.

Jacky Ickx and Derek Bell announced the dawn of a new era in sports car racing in 1982 by leading a Porsche team whose three cars were now painted in the blue and white livery of Rothmans cigarettes. From the outset, the new 956, designed by Norbert Singer and packaging the previous year's turbocharged 2.6-litre flat-6 engine in a smooth closed-cockpit body, looked the class of the field competing for the world endurance championship in the FIA's new Group C category, whose regulations left engine capacity free but specified a minimum weight of 800kg. Most significantly, petrol tankage was limited to 100 litres, to be refilled a maximum of twenty-five times during the twenty-four hours. At Silverstone a month earlier, Ickx and Bell had given the 956 its debut, finishing second in the Six Hours behind the Lancia LC1 barchetta of Michele Alboreto and Riccardo Patrese as the Porsche engineers used the race to assess the car's fuel consumption. They had beaten other new machinery built for Group C that they would meet again at Le Mans: the latest from Rondeau, Lola, WM, Sauber, Dome and March, and a new 5.4-litre Nimrod-Aston Martin designed by Eric Broadley and entered by Viscount Downe, the deputy lord lieutenant of North Yorkshire.

The Ford Motor Company, too, was taking the opportunity offered by Group C to re-enter the world of endurance racing, although perhaps aware that Porsche would be a tougher nut to crack than Ferrari. Ford made its return with a coupé called the C100, run from the company's Cologne headquarters. Powered by a four-litre Cosworth DFL, it was somewhat troubled in gestation, requiring revisions to Len Bailey's chassis by Tony Southgate.

Although Ickx and Jochen Mass set off from the front row in cars carrying the race numbers 1 and 2, the fiftieth edition of the 24 Hours of Le Mans began as though the outcome were not a foregone conclusion. The Porsches dropped back, running to a schedule devised with fuel consumption in mind,

leaving others to make the early pace. The two Rondaus of François Migault and Jean-Pierre Jaussaud were soon at the front, ahead of the Ford of Klaus Ludwig. But for the Lancias, fourth and fifth on the grid, trouble struck within minutes. Michele Alboreto was not even halfway round the first lap when he stopped at Tertre Rouge with fuel starvation. Piercarlo Ghinzani made it a few hundred metres further before spluttering to a halt on the Mulsanne straight. Both drivers got out and spent a long time fiddling with their fuel pumps before restarting and heading for the pits. They resumed at the tail of the field, slowly making up places until other mechanical problems forced both cars to retire.

At the front, the race would be shaped by an inherent flaw of the Cosworth DFL engine, whose tendency to set up vibrations provoked breakages, usually in the electrical systems. The fastest of the five Rondaus held the lead for three hours before being hobbled and finally eliminated, as was the second car; the other three were never in contention. The Ford of Ludwig and Marc Surer showed promise, leading briefly in the fourth hour before the shaking began to do its terminal damage. The same phenomenon accounted for the works Lola and two prototypes built in Switzerland by Peter Sauber.

By one o'clock in the morning the works Porsche 956s had established a stranglehold on the race, with Ickx and Bell in the lead, followed by Mass and Vern Schuppan and the third Rothmans car, shared by Al Holbert, Hurley Haywood and Jürgen Barth. Porsches took the wins in all five classes, with Ickx and Bell also taking the Index of Energy Efficiency. Bell's verdict on the Belgian's qualities as a teammate summed up the success of a partnership that had secured its second Le Mans victory in a row, and its third in all. 'Whenever I took over a car from Jacky,' the Englishman remembered, 'it was never any worse than it had been when I handed it over to him.' No co-driver could ask for better – except, perhaps, a little more in the way of recognition. 'Of course it was great to drive with Jacky,' Bell said, 'but there was always this feeling that you were in his shadow.'

Hurley Haywood had always needed a kind of courage different from that normally expected of racing drivers. Born in Chicago, he was brought up amid the privileges, conventions and expectations of wealthy 1950s America: horses, yachts and frequent trips to Europe. At twelve, he learned to drive on the

roads of one of his family's seven farms. In 1967 he drove his Chevrolet Corvette down to Jacksonville, Florida, where he would study business administration, begin his racing career and establish his permanent home, interrupted only when he was drafted into the US Army and was sent to Vietnam in 1970, having rejected the opportunity for deferral open to sons of the rich and well-connected. Disembarking from the flight home, he saw civilians at the airport spit on his fellow returning GIs. In Jacksonville he met Peter Gregg, the owner of the local Porsche dealership. Together they won many victories, while Haywood learned the techniques and the disciplines of endurance racing effectively enough to win the Daytona 24 Hours five times and the Sebring 12 Hours twice. Unlike Gregg, Haywood also enjoyed driving open-cockpit prototypes, and was immediately at home when the call came to drive the works Martini-sponsored Porsche 936 on his Le Mans debut in 1977, sharing the victory with Jacky Ickx and Jürgen Barth.

Blond, handsome and talented, throughout his career as a professional driver he hid the fact that he was gay. Around the time he won the second of his three victories at Le Mans, in 1983, he met Steve Hill, the man who would become his husband once the city of New York had legalised gay marriage and they could travel up from their home in Florida for the ceremony, by which time they had lived together for twenty years. But in 1983 to have come out as gay would almost certainly have destroyed his career.

The car he would be driving that year was a works 956, the latest version of the previous year's winning car, which Porsche had been selling for £160,000 each. Of the fifteen they delivered to suitably qualified customers, eight turned up at Le Mans, plus the three works cars, which had benefited from a year's development. Each of the trio of Rothmans-sponsored machines had a lighter chassis and a new Bosch Motronic automated fuel injection system which was particularly helpful in a contest where consumption would be a critical factor. Even the best of their customer teams, including those of Reinhold Joest, the Kremer brothers, John Fitzpatrick and Richard Lloyd, were still having to do those vital, race-defining calculations for themselves. But the strictness of the regulations, for all the ACO's good intentions, went out of the window when it came to qualifying. Special engines and qualifying tyres were allowed again, and Porsche took advantage. Bigger turbos, more boost and soft Dunlops allowed Ickx to record a lap in 3min 16.56sec, twelve seconds faster than his pole-position time a year earlier. He was keeping at bay

the new Lancia LC2 coupés, with their turbocharged 2.6-litre Ferrari V8 engines.

Ickx, now thirty-eight, was in semi-retirement, which meant a life of skiing, cycling on the roads around his home in Belgium, competing in the annual Paris-Dakar Rally, and a little bit of endurance racing in 220mph prototypes. 'Group C suits me very well,' he told an interviewer. 'They are fast cars, very good cars, and the programme includes seven races a year. That gives me plenty of time to enjoy life.' Now aiming for a seventh win at Le Mans, he was again paired, at his insistence, with Bell, whose new partnership with the German prodigy Stefan Bellof was broken up for this one race. Bell accepted the decision, knowing that Ickx's experience was likely to give him a better chance of a fourth win at the age of forty-one. Bellof, twenty-five years old and on the brink of graduating to Formula 1, was teamed with his compatriot Jochen Mass in the second car; the third was crewed by Haywood with Al Holbert and Vern Schuppan, two Americans and an Australian.

Based on Ford's performance with the C100 in 1982, a strong challenge was expected from a car redesigned by Tony Southgate to accept a turbocharged engine. But a change of management led to the sudden cancellation of the factory's Group C programme, leaving one of the previous year's cars to be entered in private hands. This was a setback for the organisers, who had been relishing the box-office appeal of a battle between the works Fords and Porsches. Now the principal opposition to the German team would come from seven Cosworth-engined Rondeaus, including three new works cars with special aerodynamic bodywork.

The emphasis on Group C and Group C Junior – for lighter, lower-cost cars with fuel tanks restricted to fifty-five litres – attracted a varied field within those categories while limiting mechanical and visual diversity. The Juniors included two distinctively stumpy Mazda 717Cs, but otherwise spectators needed to consult their programmes to work out which was which among the Dome-Cosworth, the Grid-Cosworth, the Alba-Giannini, the Sehcar-Cosworth, the URD-BMW and the Sthemo-BMW.

No one, it turned out, was capable of challenging the Porsches, who would have to contrive their own entertainment. It began on the opening lap, when Mass got the jump on Ickx at the start. The No. 1 car was following the No. 2 as they approached the end of the Mulsanne straight. But then Jan Lammers, lying third and challenging for second in the Richard Lloyd Racing 956, left

his braking too late and punted Ickx's car up the rear, sending them both into the escape road and immediately reshaping the race. Ickx returned to the pits for a quick inspection before going back out, but the loss of even a couple of minutes to a bunch of fast, durable and close-matched rivals imposed a much greater penalty than might have been the case in earlier eras.

Mass and Bellof held the lead for three of the first four hours, ahead of the Schuppan/Holbert/Haywood No. 3 car, with Ickx and Bell working their way back to third place. But a glitch in the Motronic system of the leading car led to piston damage during the night and eventually a blown engine. Ickx and Bell continued to chase and had overtaken their surviving teammates just after dawn when Bell was forced to stop to rectify an ignition problem. With that momentary exception, the No. 3 car stayed out front from dusk on the Saturday to early afternoon on the Sunday. At that point, with Schuppan enjoying a two-lap lead, the passenger-side door flew off, immediately affecting the flow of cooling air to the engine. A new door was fitted and Holbert took over, but overheating had become a serious problem.

With twenty minutes to go, the engine boiled dry and stopped as Holbert began his final lap. After managing to bump-start it, he limped round the final lap to finish sixty-four seconds ahead of Bell, whose own engine was using its last drops of fuel. If this was not quite the closest finish at Le Mans, it was probably the most nail-biting, since neither car would have been able to manage another lap. Had it been the 24 Hours and 5 Minutes of Le Mans, Mario and Michael Andretti would have become the second father/son combination after Louis and Jean-Louis Rosier in 1950 to win the race instead of bringing their Kremer 956, shared with Philippe Alliot, into third place. Porsches would still have filled the first three places, since the only non-Porsche finisher in the top ten was the ninth-placed Sauber-BMW.

As Hurley Haywood stood on the podium, a gay racing driver would have seemed a contradiction in terms to many of those applauding him. There had been others, but even if the paddock knew about them, the public did not. In 2019, seven years after his retirement, Haywood chose to tell his story in an autobiography. That year he was also the subject of a documentary produced by Patrick Dempsey, the American actor who rose to fame in the TV series *Grey's Anatomy* before becoming a familiar figure at Le Mans, first as a driver and then as an entrant.

At seventy, still handsome and quietly spoken, Haywood talked of how he had decided to speak out at last in order to help others: 'Where I would have been silent in the past, I now say it's OK to be vocal about it, and it's time to give back. The whole process of accepting something gets easier as time goes on. As history starts to unfold, I think maybe people will look at me differently. I'm happy as I am.'

The return of Jaguar to Le Mans in 1984, after a twenty-year absence, came about when the FISA, the governing body of international motor sport, made an unexpected and controversial decision not only to abandon the fuel-consumption formula in use since 1982, on which so much effort and ingenuity had been expended, but to allow cars competing in the US IMSA series to race against the Group C cars, whose minimum weight was raised by 50kg in an attempt to equalise performance between the two categories. This opened the door for Bob Tullius, the first American to bring a Jaguar to Le Mans since Briggs Cunningham.

Tullius had begun racing at the age of thirty in a Triumph TR3. Soon he was leaving his job at the headquarters of Kodak, in his hometown of Rochester, New York, to become a professional driver. He competed at Le Mans for the first time in a works Triumph Spitfire in 1964; a year later he and two partners started their own team, Group 44, building a relationship with the British Leyland conglomerate that saw them graduate from Triumphs through MGs to Jaguars. In 1982, with Jaguar's permission and funding from the American distributor, Group 44 began to build a car to race in the IMSA series: a rear-engined coupé designed by Lee Dykstra, who had worked for Ford on the GT40 and Capri racing programmes.

The Jaguar XJR-5 would be powered by a 5.3-litre version of the twelve-cylinder engine that had first appeared in 1966 in the XJ13, a mid-engined design that never made it to the race track. The V12 resurfaced in 1971 as a production engine in the E-type Series 3 and the following year in the XJ12 saloon. Now Dykstra had installed it in a coupé with an aluminium monocoque chassis, venturi tunnels under the rear end and body panels made of a carbon fibre and Kevlar composite. Wins in the 1983 IMSA series and a successful test in Derek Bell's hands at Silverstone persuaded Jaguar to endorse a trip to Le Mans. Beautifully prepared by their American crew, the two cars

were finished in Group 44's colours: all white with stripes in two shades of green.

The change in the rules had infuriated the Porsche management, whose efforts to meet the fuel consumption requirements had been extensive and costly. Now the cars could be refuelled as many times as they wanted. Porsche's answer was to boycott the race – and not only to stay away but to order their drivers not to take part in anyone else's cars. So there would be no Ickx and no Bell, no Haywood and no Holbert, no Mass and no Bellof.

Although this came as a blow to the organisers, Porsche's customer programme ensured the presence of twenty-two of their cars, thirteen of them in Group C. Among them were two entered by Joest and sponsored by New Man, a French clothing manufacturer whose distinctive sans-serif logo had been created by Raymond Loewy, the designer of the Coca-Cola bottle and the Lucky Strike cigarette packet. Joest's drivers of the cars painted yellow, white and black included Stefan Johansson, Henri Pescarolo, Jean-Louis Schlesser and Klaus Ludwig. Lancia's Martini-sponsored Group C coupés were back, and it was Bob Wollek, hitherto known for his exploits in Porsches, who captured pole position for the Italian team. The two Lancias started from the front row with genuine hopes of their campaign finally yielding success.

They were given a shock on the opening lap when Roger Dorchy in the latest WM-Peugeot blew past them both, having already overtaken five Porsches. The home spectators cheered as the orange car crossed the line in the lead at the end of the first lap. Wollek got by on the second lap but then Dorchy repassed the Lancia, only to be harried into an error at the Mulsanne corner the next time around, hitting the barrier. Once the damage had been repaired, he was down in fifty-third place. Early misfortune also struck Pescarolo, who called at the pits to sort out fuel-feed problems with one of the New Man Porsches before repairs to the suspension were required in the late afternoon. The Lancias were able to hold first and second places through most of the night before a blown engine removed the car of Paolo Barilla and Hans Heyer, while Wollek and Alessandro Nannini required gearbox repairs.

Pescarolo and Ludwig had been making up time in the delayed New Man Porsche, the yellow car rising from thirtieth place at the end of the first hour to the top three twelve hours later and assuming the lead with just over eight hours to go. Behind it at the finish were two more 956s: the Hawaiian Tropic car of Jean Rondeau – who had run out of money to keep his own team going

and had sold his cars – and John Paul Jr and the car entered by John Fitzpatrick Racing. It was Porsche's ninth win, Pescarolo's fourth and Ludwig's second. More Porsches were fourth, fifth, sixth and seventh. In the surviving Lancia, beset by gearbox trouble, Wollek waited in the pits until just before the finish, completing the final lap in eighth place directly behind the winner in order to ensure that the car's picture would appear in the newspapers.

Both Jaguars had been circulating in the top twenty for the first hour, rising up the order through their ability to go longer between refuelling stops than the Group C cars. Before they retired, one after an accident caused by a burst tyre and the other with gearbox failure, Tullius had even led the field for a single lap while the faster cars were making their initial stops, the first time that had happened to a Jaguar since Ivor Bueb briefly held the lead at midnight in Duncan Hamilton's D-type in 1958.

CHAPTER 16

Fuel economy (1985–89)

During the second practice session for the 1985 race, the Danish driver John Nielsen was taking one of Peter Sauber's prototypes down the Mulsanne straight at full speed when the car began to take off. Nielsen's car had been timed at an impressive 221mph the day before, but now, as it came over the pronounced hump before the braking zone, the Mercedes-engined Sauber C8 soared into the air. Later analysis suggested that the underbody may have come loose, robbing the car of downforce. Whatever the cause, it performed two loops before crashing down and settling on its wheels, continuing down the road as it shed pieces of bodywork before sliding to a halt. The 29-year-old driver, on his first visit to Le Mans, got out of the wreck without a scratch.

Mercedes had not returned to the Circuit de la Sarthe since the catastrophe of 1955. For thirty years the company's participation in motor sport had been restricted to rallying and the occasional touring car race. The new collaboration with Sauber had begun with a visit by staff from Mercedes' research department to Hinwil, near Zürich, where the constructor was on the hunt for something more effective than the Cosworth and BMW engines used in his earlier cars. Not yet ready for an official comeback, but hoping to get an idea of the possibilities, Mercedes arranged for their twin-turbocharged five-litre V8 power units to be provided indirectly through Sauber's usual Swiss-based supplier, Heini Mader's tuning shop in Gland.

The addition of the Ford chicane removed the fear that a car would go airborne on the start/finish straight, as Pierre Levegh's Mercedes had done thirty years earlier. Nielsen's accident happened where there were no

spectators, and he landed back on the racing surface rather than on the barrier or in the trees. But enough doubts had been raised for the car, Sauber's only entry, to be withdrawn.

The ownership of the race had passed into the hands of a new syndicate in which the ACO were joined by the national, departmental, regional and city governments, whose willingness to invest in the event indicated its growing prestige and economic value to the community. The descendants of Gustave Singher and Georges Durand would continue to run it, and to supervise the changes in the regulations, such as the major one made for 1985. In the wake of Porsche's boycott, a modified fuel consumption formula was imposed, limiting Group C cars to a total consumption during the race of 2,210 litres of the ACO's officially supplied 105-octane fuel. That was enough to persuade Porsche to return with three Rothmans-liveried examples of their 962, a new coupé developed from the 956 and designed to meet the rules in both the European Group C and the US IMSA categories. They would be pitted against three other 962s and six 956s from the usual stables of Joest, Brun, Kremer, Lloyd and Fitzpatrick, three Martini Lancias and Bob Tullius's pair of Jaguar XJR-5s.

For spectators, the contest became less than enthralling as soon as the exigencies of fuel economy took over. The tightest grip of all was exerted on the works Porsches, as Michael Cotton lamented in *Motor Sport*: 'Fierce acceleration was avoided. Ickx was in fourth gear, from the chicane, before he reached the pits.' The balance had been lost between performance and economy, between excitement and the technical progress that provided the justification for the event. Few could find consolation in this compromised spectacle as the fastest sports cars in the world trundled around a circuit designed for speed.

For once, too, the boffins at Porsche System Engineering got their sums wrong. The team had fun in qualifying, fitting a three-litre engine and soft tyres to two of the 962s and telling Stuck and Ickx to turn up the boost, the German driver capturing pole position with a new record time. In race trim, however, they were barely a match for the private entrants. The great Ickx, on his final appearance in the race he had won six times, could only finish tenth after a delay of more than an hour when the gearbox had to be changed. Bell and Stuck finished third, hobbled by wheelbearing failures and the need to conserve fuel. In the third Rothmans car, Holbert, Schuppan and John Watson

had held second place but had dropped back by the time a crankshaft failure ended their race.

The New Man Porsche took a comfortable win, Joest's second in a row, ahead of the Lloyd car, the winning drivers sharing the burden according to their talents and experience. Klaus Ludwig drove more than half the distance, Paolo Barilla did a solid chunk, and 'John Winter' – otherwise Louis Krages – spent only seventy minutes at the wheel, half an hour of which was under a full-course yellow. Krages's mother was said to have discovered the nature of her 35-year-old son's hobby when she saw a photograph of him celebrating victory at Le Mans.

In seventeenth place, at the wheel of a WM-Peugeot, came Jean Rondeau, still unable to raise the money to revive his own team. Six months later, two days after Christmas, he filled up his Porsche 944 at a garage near his home in Champagné and joined a queue of cars halted at a level crossing. After a train had passed, a police van approached, its lights flashing. The barrier was lifted to allow it through. A few cars took the opportunity to follow. Rondeau was the last of them, caught between the barriers when they began to close again. Before he could react, his car was hit full-on by the Paris-Quimper express.

His funeral was held on New Year's Eve. His mother, Renée, who had encouraged and supported his early efforts in motor racing, led the mourners. Rondeau had been taken to watch the 24 Hours for the first time at the age of three, in 1949. At the time of his death he was planning to revive his efforts to win his home race again, this time with a French car powered by a French engine, hoping to realise the ambition he had outlined to the president of the Republic five years earlier.

The Porsche hegemony was at its height. But as the cars from Stuttgart prepared for their arrival at Le Mans in 1986 on the back of five consecutive victories, challenges to the three Rothmans-backed works cars and ten private entries were coming over the horizon. The first was evident during the test day, reinstated for the first time in several years, when a Jaguar posted the fastest time. This was not one of the US-built XJR-5s but a brand-new XJR-6 entered by the factory, built and prepared by Tom Walkinshaw Racing in the UK, painted in the purple and white colours of the team's title sponsor, Silk

Cut cigarettes, and arriving at Le Mans after an impressive victory over the works Porsches in the Silverstone 1000km.

Walkinshaw was a brusque, flinty-eyed Scot who had become recognised as a formidable competitor and organiser. His prior work with Jaguar, turning the XJS into a winner of the European touring car championship in 1984, prompted an invitation to take charge of the company's sports car racing programme. With Bob Tullius's Group 44 now concentrating on the IMSA series, Walkinshaw's target was the Group C championship – and in particular Le Mans, where the last of their five wins had come in 1957. The XJR-6 was the work of Tony Southgate, who had designed the Eagle with which Bobby Unser won the 1968 Indianapolis 500 and BRM's last Grand Prix winner, the P160. He had helped Ford to develop the ill-fated C100 before joining Walkinshaw and carried some of its features over to the Jaguar, which used a six-litre version of the company's V12 engine inside low-drag bodywork.

Changes to the road system around Le Mans again required a modification to one of the circuit's traditional features. This time it was the Mulsanne corner, where a *rond-point* had replaced the old crossroads. A slip road introduced an extra kink before the corner itself. Hans-Joachim Stuck pointed out that the old braking zone, where the cars went from 200mph to 40mph in a straight line, had been a favourite place for overtaking. Now the additional kink would make it much harder for faster cars to line up a pass. And there was always a lot of passing to be done at Le Mans.

John Egan, the chairman of Jaguar, flagged the fifty starters away on the last day of May. With dreams of reliving their victory of the previous year, the Joest team of Klaus Ludwig, Paolo Barilla and 'John Winter' led the race in the New Man Porsche at the end of each of the first four hours, Ludwig initially battling with Stuck and Bob Wollek in the works cars. Behind them came the Jaguars of Derek Warwick, Brian Redman and Win Percy, running an impressive fourth, fifth and sixth. The two Sauber-Mercedes, now sponsored by Yves Saint-Laurent's Kouros aftershave, retired early with gearbox and engine failures.

Towards the end of the night, shortly after Jochen Mass, taking over from Wollek, had hit a patch of oil and damaged their Porsche too badly to continue, the Viennese driver Jo Gartner, running in eighth place in one of the Kremer brothers' 962s, lost control while accelerating on the early part of the Mulsanne straight, probably as the result of a jammed gearbox. The black-

painted car swerved into the steel guardrail at around 160mph and flew over it, demolishing a concrete telegraph pole before hitting a tree and tumbling back across the track to land on top of the opposite guardrail and catch fire. Gartner's body was extracted from the wreckage; at some point during the series of impacts, his neck had been broken.

While the debris and 100 metres of guardrail was replaced, for two and a half hours the cars ran at reduced pace in the cool night air behind the safety car, with an outcome that only became apparent when the green flags were shown as dawn was beginning to break. The engine of Ludwig's Porsche responded badly to the prolonged period of running at lower temperatures and failed soon after the resumption, removing the car that had won in 1984 and 1985 and handing the surviving works entry of Stuck, Derek Bell and Al Holbert a lead that would come under no further threat.

One Jaguar had gone out before dark when Hans Heyer was stranded out on the course with a dry petrol tank. The opposite was true for Win Percy, whose 100-litre rubber fuel cell was overfilled and became distorted when the TWR mechanic holding the pump dozed off. While another member of the pit crew, alert to the danger, prevented the vent valve being opened in the normal way, Walkinshaw ordered Percy to restart the engine and set off again, having decided that an explosion out on the track would be less disastrous than one in the pits. There was no explosion, but half an hour later the driveshaft broke. Only when he returned to his pit on foot was the driver told how close he had come to catastrophe.

The Jaguar shared by Warwick, Eddie Cheever and Jean-Louis Schlesser had been performing brilliantly, only a flat battery interrupting its rise up the leaderboard as the leading Porsches fell away. It was in a convincing second place when, with eight hours to go, a rear tyre burst as Schlesser was coming through the Mulsanne kink, damaging the suspension so badly that its race was over. The Jaguars were out, but John Egan had seen enough to convince him that the project had a future.

Second place on the podium was taken by the Walter Brun Porsche of Oscar Larrauri of Argentina, Jesús Pareja of Spain and Joël Gouhier of France. Behind them came a Joest Porsche painted in a facsimile of the Stars and Stripes to honour its American crew of George Follmer, John Morton and Kenper Miller. An impressive seventh was a machine that seemed out of place among all the sleek low-line prototypes, a Porsche derived from the cars that

won two of the previous three Paris–Dakar marathons. The latest evolution of the 911, with a 2.9-litre twin-turbo engine, the 961 was the first four-wheel-drive car ever to compete at Le Mans. In the hands of Claude Ballot-Léna, making his twenty-second appearance at Le Mans, and René Metge, a recent winner of Paris–Dakar, it was particularly at home in the dawn drizzle, and the sole finisher not to require a third driver.

The Japanese challenge had been growing in number but not, thus far, in impact. Neither of two Dome-Toyotas, entered with works support, managed to finish the race; nor did the two rotary-engined Mazda 757s, entered by the Mazdaspeed factory team. Nissan arrived at Le Mans for the first time with two cars designed and built by March in England to take the Japanese company's turbocharged three-litre V6 engine, with strict orders that both cars should be run conservatively to finish the race, a seeming contradiction of earlier promises that they would be capable of 250mph. 'The internal politicking, fighting and squabbling which went on throughout the event had to be seen to be believed,' *Autocar's* correspondent wrote. After two of the team's Japanese drivers had attempted to subvert the instructions by turning up the turbo boost in practice and blowing a pair of engines, one car went out of the race with a broken crankshaft before nightfall while the other staggered in to finish sixteenth after a long stop to repair the ignition and a successful attempt to persuade the commissaires that the introduction of a fourth driver after a pit stop had been a genuine mistake.

Although seemingly serene, the No. 1 Porsche's cruise to victory had not been entirely without incident. At one point Bell, on his way to a fourth win that would take him past Woolf Barnato to become the British driver with the highest number of victories at Le Mans, lost his temper and threw his seat at a commissaire who had tried to prevent Stuck leaving the pits. The matter was settled with an apology and a handshake.

In 1987, as the fans flocked back to the Sarthe in their GB-registered cars and camper vans in the hope of seeing a Jaguar win again, the voice of Bob Constanduros was one of the first heard on Radio Le Mans, a station broadcasting what would evolve, over the years, into a running commentary throughout the race, keeping spectators informed and bringing those dozing off during the night up to date. Since the middle of the 1970s, British

spectators who had failed to pay enough attention during their French lessons at school had been grateful for his voice coming over the circuit's public address system at regular intervals, giving them a five-minute English-language summary of the race's progress.

The son and nephew of amateur racers, Constanduros started out by helping his uncle, James Tilling, a regular track commentator at Goodwood and Silverstone as well as Le Mans. When Uncle James went off for an evening drink with his pals, young Bob filled in. He had paid his first visit to Le Mans in 1972, on a £15 package trip offered by *Motor*, including a race ticket and a return flight from Lydd airport in Kent to the circuit. Within a couple of years he had replaced his uncle. Some who tuned in might have been reminded of the regular bulletins provided on the BBC's Light Programme by the voice of Raymond Baxter, a wartime Spitfire pilot when still in his teens, a grammar school boy from Essex with a public school voice which, as the *Guardian's* obituarist put it, 'made him suitable for state funerals (including Winston Churchill and King George VI) and the 1953 coronation'. For many, the act of turning on the BBC at an unearthly hour of the night had been a formative ritual. In its turn, Radio Le Mans would become one more of the race's institutions.

Another novelty in 1987, less welcome to many, was the insertion of a chicane between the curving right-hander at the end of the pits and the Dunlop bridge. A sharp left-right, it was created for the benefit of the motorbike racers, whose machines had been taking off as they went over the brow of the hill at high speed. For spectators, it removed the sight of the competitors taking the curve and charging up the rise in a single flat-out sweep; those watching from the other side of the bridge would see the fastest cars cresting the brow of the hill not at 180mph but at something closer to 110mph, the safety feature adding around six seconds to lap times.

For the first time in the race's history, not one car in a field of forty-eight had been homologated as a production vehicle. Every car that came to the grid was a prototype, and the race was anticipated as the chance for the Jaguars to end one era and start another. Tom Walkinshaw's Silk Cut-sponsored team returned with three new XJR-8s, their engine capacity increased to seven litres. They had won all four previous rounds of the championship series, at Jarama, Jerez, Monza and Silverstone, beating the works Porsches every time.

Now equipped with low-drag bodywork specially created for Le Mans, they had posted the fastest time at the test day. Confidence was high.

Sauber, looking more than ever like a Mercedes works team in civilian dress, brought two examples of the new C9 that had led the Jaguars for a while at Silverstone. The works Porsche 962s, their three-litre twin-turbo engines now water-cooled, were supported by the usual host of customer cars, and Hans Stuck and Jochen Mass set the fastest times in qualifying. But the form of the Jaguars, and the superior fuel economy of their normally aspirated engines, constituted a real threat to the champions.

A Saturday afternoon shower prompted most of the teams to fit intermediate tyres before the grid formed up, but the track was already drying when the Hon. Gerald Lascelles, the president of the British Racing Drivers' Club, waved the tricolour. He would have been delighted to see Martin Brundle, a newcomer to the Jaguar team, harrying the Rothmans Porsches in the opening laps, backed up by Eddie Cheever in the second TWR car. In just over an hour, four of the fastest Porsches – Mass's works car, two from the Joest team and one from the Kremer brothers – were out with piston failures, blamed on the fuel being supplied by the ACO.

While rapid adjustments were made to the injection systems on the surviving Porsches, the remaining works car, shared by Stuck, Derek Bell and Al Holbert, was battling the three Jaguars. By half past three in the morning both Saubers had retired and the number of Jaguars was reduced to two when Win Percy suffered a failure of one of the new Dunlop radials on the Mulsanne straight, the car destroying itself against the barriers without injury to the driver. On the remaining Jaguars, the new tyres were quickly switched for older cross-plies, but it was a broken valve spring that put Brundle and Nielsen out in mid-morning. The third car endured a litany of problems, culminating in the loss of the rear bodywork in the Mulsanne kink and a suspension breakage.

Stuck, Bell and Holbert took their second win in a row after pushing hard until all the Jaguars were out of contention, using the safety car periods to regulate their heavier fuel consumption. From mid-morning they were unopposed, finishing twenty laps ahead of the Primagaz Porsche 962 of Jürgen Lässig, Pierre Yver and Bernard de Dryver and a further three laps up on a second Primagaz-sponsored car, a Cougar C20 built in Le Mans by Yves Courage and shared with the constructor by Pierre-Henri Raphanel and

Hervé Regout. A Kremer 962 finished in fourth place, ahead of the only surviving Jaguar of Cheever, Jan Lammers and Raul Boesel. Stuck greeted Porsche's victory over their British rivals with glee. 'We broke the Cats' neck in the night,' he said. 'And not only the neck. Everything was broken.'

After a troubled spell in public ownership, by 1988 Jaguar was back in private hands as a symbol of Britain's industrial progress under Margaret Thatcher. Like many other British marques – including Austin, Morris, Riley, Wolseley, Triumph, Rover and MG – it had been merged in 1966 into the conglomerate British Motor Corporation, which then became British Leyland, nationalised by the Labour government in 1975. By 1980 Jaguar was in danger of disappearing altogether. In terms of cars built per worker, Mercedes-Benz was enjoying more than four times the productivity of its British rival, who were also receiving three times as many first-year warranty claims, confirming an old reputation for poor build quality. In a final attempt to revive the company, the chairman of British Leyland, Michael Edwardes, brought in John Egan. The son of a garage owner and a graduate in petroleum engineering, Egan understood cars and the car business and had energy and ambition to burn.

Edwardes had become a favourite of Thatcher, who wanted to show that private enterprise would always have the beating of state-owned industries. Unsurprisingly, the prime minister seized on Egan's plans for reducing manpower by 20 per cent while increasing productivity by 50 per cent. Seeing the chance to set an example to the trade unions and the rest of industry, they awarded Jaguar £100 million in government backing. Egan had to fight the unions to get his staffing cuts, but he built the workers a swimming pool and a sports centre while improving the quality of the product, and eventually his remedies began to work. By the time Tom Walkinshaw's team of XJS coupés had trounced the works BMWs in the 1984 Donington 500, Jaguar had been spun off from British Leyland and successfully listed on the London Stock Exchange. The company was on the up again, with a racing programme created to help rebuild the image, and in no doubt of its primary objective.

After three years of mixed progress and setback, the XJR-9 appeared in 1988. Designed by Tony Southgate as an evolution of the previous year's car, it lost to a Sauber-Mercedes on its debut at Jerez but then picked up a string of wins with the pairing of Eddie Cheever, the experienced American F1 driver,

and the 29-year-old Martin Brundle from Norfolk. In his early years Brundle had gone head-to-head with Ayrton Senna in Formula 3 but had yet to make his results in Grand Prix racing live up to that promise; to Walkinshaw, he had already proved his worth in TWR's BMW and Audi saloons. For this latest attempt to reconquer Le Mans, the TWR boss entered five Jaguars, adopting a strategy that had served others well. With Cheever on F1 duty, Brundle would be joined by the Dane John Nielsen at the wheel of the No. 1 car, with Jan Lammers, Andy Wallace and Johnny Dumfries in the No. 2 and the remaining three cars to be driven by a squad including Henri Pescarolo, John Watson, Raul Boesel and Davy Jones.

In the earlier rounds of the 1988 championship, Jaguar had benefited from the absence of the works Porsche team, whose management had decided to concentrate on building a car to compete in the Indianapolis 500. Their endurance racing programme was restricted to Le Mans, where three works 962s were entered in the unfamiliar bright yellow and red colours of Shell, backed up by others from the Kremer, Joest and Brun teams.

A full-scale official Mercedes-Benz assault on Le Mans with the new Sauber C9 was terminated after the first practice session on Wednesday, when a Michelin tyre blew out just after the Mulsanne kink, destroying the car of Klaus Niedzwiedz along with the evidence required by the tyre technicians to determine what had caused it. Always sensitive to their position vis-à-vis the 24 Hours, the board in Stuttgart asked Peter Sauber to withdraw both of the cars rather than risk another big accident.

The Mulsanne straight had been resurfaced, using laser technology to make it as smooth as possible, and 12,000 tonnes of earth had been removed to reduce the height of the hump near the end. The change found particular favour at WM, where the twin-turbocharged Peugeot engine in the latest chassis now produced 900bhp. The bodywork had been redesigned, once more purely with straight-line speed in mind, and Gérard Welter was so confident that his team would finally achieve the dream of exceeding 400kph (248mph) on the straight that the new car was named the P400.

The honorary starter was Kyohei Yokose, the chairman of the Sumitomo Organisation, a major Japanese conglomerate, reflecting the increasing efforts by Toyota, Nissan and Mazda to make an impact on a race now enjoying enormous prestige in their home market. Again they were fielding full teams,

but it was the European manufacturers who were still setting the pace and would battle it out for the whole 24 Hours.

Although the Porsches, defending a seven-year winning streak, had turned up their turbos to set the fastest qualifying times, Hans-Joachim Stuck, Bob Wollek and the paterfamilias of the Andretti clan – Mario, now aged forty-eight, sharing a car with his son Michael and nephew John – soon found themselves in a proper fight with the Jaguars, and the No. 2 car of Lammers in particular. Brundle in the No. 1 held back before handing over to Nielsen, who lost two laps after spinning into the gravel at Indianapolis, dropping the car out of the top ten, while the third car disappeared during the evening with a broken gearbox. Lammers and his co-drivers, however, had shown themselves capable of setting the pace at the front.

They were helped after two and a half hours when Klaus Ludwig ran out of fuel and had to stutter back to the pits on the dregs in his works Porsche's tank. Thereafter he and his co-drivers, Stuck and Derek Bell, had to go all out to make up the lost time, fighting back from seventh to second place by three o'clock in the morning, leading to an enthralling battle between Ludwig and Dumfries. A chance for the Porsche to retake the lead when the Jaguar needed a new windscreen at dawn was nullified by the time spent fitting a new water pump to the German car, and then by fuel-feed problems. The Wollek Porsche, after leading for a long spell around nightfall, broke its engine while the Andrettis were delayed by a faulty water pump.

The WM-Peugeot team achieved their ambition when, after early mechanical problems, their veteran driver Roger Dorchy was sent out in the early evening with the boost pressure turned up and one idea in mind. On his second pass through the speed trap on the Mulsanne straight, the timing gear registered 407kph (258mph). The car could be brought in, cooled down and packed up, ready to be taken home by the team's band of enthusiastic volunteers, its mission completed.

The leading Jaguar was in the hands of three drivers with very different backgrounds. Lammers had been born in Zandvoort, home of the Dutch Grand Prix; as a boy he washed cars coming off the skidpan at the circuit's racing school. In four seasons in F1 he drove for four different teams and scored no championship points. Dumfries, the heir to the 6th Marquess of Bute, had narrowly missed a chance to drive for Ferrari in F1 and spent a year with Lotus, knowing that Ayrton Senna, his teammate, was getting the best

equipment. Wallace had washed dishes at an Oxford college and taken an apprenticeship as a British Gas fitter to fund his early career, which included a spell as an instructor at the Silverstone racing drivers' school. After winning the British F3 championship, he was told that he would need £600,000 to secure an F1 seat, which was never a possibility. His career would need to follow another path.

Before the race, Lammers had made it clear to the other two that the car's weakness was its five-speed gearbox. Wallace remembered him saying: 'If we drive it like it's going to break, maybe we'll get through.' They did, but eventually it broke anyway, leaving the Dutchman to drive the final twenty-five minutes with only third gear. The pursuing Porsche was now on the same lap. As Lammers slowed drastically, the other two surviving Jaguars, lying in fourth and sixteenth places, caught him and formed up behind their teammate, ready to shunt him to the finish if the gearbox failed altogether on the last lap. It didn't come to that. The car crawled to the line, just 200 yards ahead of the Porsche, halted by ecstatic fans flooding onto the track, waving their flags and singing their songs. It had taken thirty-one years, but Jaguars and Le Mans were synonymous again.

Bernie Ecclestone's sudden interest in the world of sports car racing would be bad news for the Automobile Club de l'Ouest. For 1989, Formula 1 was adopting new cost-saving regulations that specified the use of 3.5-litre engines and banned turbochargers. Ecclestone wanted the world sports car championship to follow suit. Then, he thought, car makers competing at Le Mans – the likes of Jaguar, Porsche, Mercedes and Toyota – might seize an opportunity to enter F1 at reduced cost. At the suggestion of his friend Max Mosley, he had been appointed as the FIA's head of promotional affairs by his old adversary Jean-Marie Balestre, now the world governing body's president. Bringing Ecclestone inside the tent, Mosley told Balestre, would be a way of ending their long and costly feud.

As reshaped by Balestre, Mosley and Ecclestone, the sports car championship series would now consist of eight races of 350 kilometres (220 miles) each – not much longer than a Grand Prix – plus Le Mans. No more twelve-hour races or 1000km races. And as with F1, teams would be required to compete in every round, with a penalty of a quarter of a million US dollars

for every race missed. As the man who had been the first to recognise the true financial potential of putting sport on live television, Ecclestone also demanded control of the broadcasting rights and other commercial contracts.

Since becoming F1's ringmaster, Ecclestone had begun to demand large fees from individual race promoters while keeping the proceeds from broadcasting deals and commercial sponsorships for his organisation, leaving them only the income from ticket sales. Under Ecclestone, F1 had become known as the Piranha Club, and now he saw the chance to gobble up another institution. But eventually the ACO, having listened to his plans and negotiated with the FIA, decided not to swim into the mouth of the predator. By withdrawing from the FIA's championship series, they made it known that they would continue to run their event in the way they saw fit. It was enough to provoke Balestre to appear at the ACO's traditional pre-race press conference, announcing that peace talks were scheduled for the coming months. 'The race is an important part of the French, and the world's, motor sports heritage,' he declared.

Mercedes-Benz was just the kind of major manufacturer Ecclestone wanted to attract back into F1, and the sight of the new silver paintwork of the Sauber-Mercedes was a clear sign of the firmer hold on the team now taken by their engine supplier, and the intention to link them to a glorious racing history. The trio of beautifully smooth C9s, supervised by a Swiss former racer named Max Welti who had studied business management and run a dancing school in Zürich, had kicked off the season with a win at Suzuka. At Le Mans, Tom Walkinshaw's Jaguar team brought four of the latest XJR-9s to defend their title. There were no works Porsche 962s, although several enjoyed factory support.

There was a return for Aston Martin, now with Ford owning 75 per cent of the company's stock. An enthusiastic chairman, Victor Gauntlett, had persuaded the makers of the James Bond films to put 007 back behind the wheel of an Aston Martin; he was also planning to emulate John Egan's successful reintroduction of Jaguar to the racing world with a new six-litre V8-engined design, the AMR1. Having entered the championship series and agreed to the new regulations, the team was forced to pay a \$250,000 fine straight away for missing the opening race at Suzuka when the first car to be built was destroyed in testing. A pair of cars arrived at Le Mans, each with a black stripe painted on one wing to mourn the death two months earlier, in

retirement in Arizona at the age of seventy-nine, of John Wyer, who in 1959 had guided the Astons to their greatest triumph.

Two of the three Japanese teams had moved their racing operations from Japan to England. Toyota had relocated to Norfolk and brought four cars, three with turbo V8s. Rivals were impressed when Geoff Lees set the second fastest time in qualifying, behind the Sauber of Jean-Louis Schlesser, only to have his time chalked off when it was discovered he had set it in the spare car. Nissan had moved from Tokyo to Milton Keynes, switched their chassis supply from March to Lola and arrived with two cars, while Mazdaspeed brought a trio of rotary-engined 767s from Japan, the only entries in the IMSA GTP class.

Jaguar's attempt to defend their crown got off to a tragic start when a TWR engineer was killed while crossing the road outside the Café des Hunaudières on the evening before the first practice session. Their cars had not matched the Saubers' qualifying times, but once the race started Davy Jones and John Nielsen quickly muscled past the German cars to take first and second places. Behind them was the Nissan of Julian Bailey, until a misjudgement while braking for the Mulsanne corner saw him run into the back of Nielsen, ending his race and sending the Jaguar into the pits for repairs. Since the Saubers were also in various difficulties, the Joest Porsche of Hans-Joachim Stuck and Bob Wollek moved up to challenge the leading Jaguar of Jones and Derek Daly, only for the TWR car to spend an hour in the pits with gearbox problems before retiring with a blown engine.

Wollek and Stuck held the lead for six hours, until stopping to replace a radiator hose at around two in the morning, handing the lead to the Jaguar of Jan Lammers, Patrick Tambay and Andrew Gilbert-Scott. Their turn at the front would last five hours before the onset of gearbox problems cost the car almost an hour, ensuring that it would finish no higher than fourth, four places ahead of the other surviving Jaguar.

With eight hours to go, two of the Saubers quietly emerged to take a lead they would not relinquish, the winning car shared by two German drivers, Jochen Mass and Manuel Reuter, and a Swede, Stanley Dickens, troubled only by repairs to minor accident damage. Four laps behind them came the sister car of two Italians, Mauro Baldi and Gianfranco Brancatelli, and an Irishman, Kenny Acheson, whose C9 was stuck in fifth gear for the final laps but held off the third-placed Porsche of Stuck and Wollek. As in 1952, when a pair of silver

coupés appeared to have settled for following Pierre Levegh home before fate took a hand, the cars with the Mercedes star on their noses gave the deceptive impression of having won almost without trying.

CHAPTER 17

Roaring lion (1990-94)

As the war between Le Mans and motor racing's governing body intensified in 1990, the *Ligne droite des Hunaudières*, that three-and-a-half-mile stretch of the D338 highway, became the battleground. The Mulsanne straight, as the British had always known it, was among the circuit's salient features: a piece of public road on which the drivers of the fastest cars held the throttle pedal all the way down for a full minute, the very fastest maintaining speeds that topped 250mph. Over the years it had been widened and smoothed out, steel barriers had been installed along its full length, and the hump near the end had been reduced in height. Yet its essence remained, reminders of history seen in the pine woods and the café visited as part of the annual ritual. It was scary, a place where all accidents were big ones. That was part of the appeal, but in statistical terms the Mulsanne straight was no more dangerous to life and limb than any other feature of the circuit. To the vastly experienced Derek Bell, for example, it was far less hazardous than the narrow, curving section leading to Indianapolis, where big accidents had been happening since Odette Siko overturned her Alfa Romeo in 1933.

It became the focus of attention when the combined forces of Balestre, Ecclestone and Mosley continued their assault on the Automobile Club de l'Ouest by bringing the 24 Hours within the scope of their new rules for the world sports car championship. A French court had recently ruled that the FISA, the FIA's sporting commission, was the sole arbiter of regulations in motor sport, and specifically in matters of safety. In December 1989 Balestre, president of the FISA as well as the FIA, persuaded his World Motor Sports

Council to bring in a new rule forbidding any circuit from having a straight longer than 2 kilometres (1.2 miles), using the speeds being achieved at Le Mans as an example of the potential danger. Safety had become a weapon in the struggle for commercial power.

Forced to co-operate, the ACO bought the land on either side of the D338 necessary to construct two chicanes dividing the straight into three more or less equal lengths, adding 200ft to the circuit's overall length and twenty seconds to the lap time while putting extra strain on every element of the cars. The drivers had lost an unbroken stretch of full-throttle running which gave them, in Bell's words, 'a chance to relax your muscles slightly, move your shoulders around and generally de-cramp yourself'. And some of the mythical quality of the circuit had been removed. For Martin Brundle, talking to Radio Le Mans, 'The whole complexion of Le Mans has changed.' Henri Pescarolo was blunter: 'In my view, they've killed the track.'

The chicanes were initially given names – L'Arche and La Florandrière – but they never stuck, and neither did the sponsors' names that replaced them. They were destined always to be known as 'the first chicane' and 'the second chicane', suitably unromantic labels for geometrically precise features that had nothing to do with the original contours of the land or the roads that existed before racing cars came along.

The work was completed well before the race but not in time to meet the FISA's deadline for inclusion in the world championship. In response, Mercedes-Benz withdrew the Saubers, which had won three of the first four rounds of the series; they may have regretted the decision when no one else followed suit. The other major teams – Jaguar, Nissan, Toyota and Mazda – all turned up to race, as did the various works-assisted Porsche entrants and such specialist constructors as Courage and Spice.

The Japanese cars were now quick enough to represent a serious threat to the Europeans. Mark Blundell put one of the four Nissan R90CP coupés on pole position, with the boost on its twin-turbo V8 turned up to produce an alleged 1,100bhp. On race day, in very hot conditions, his co-driver Julian Bailey took the first stint, forming up behind a Nissan pace car alongside the Brun Porsche 962 of Oscar Larrauri and ahead of three more Nissans, one of which retired on the pace lap with a broken transmission. Then came the Joest Porsche of Hans-Joachim Stuck, followed by the three Jaguar XJR-12s, the first

non-turbo cars. The opening hours were a scramble, with Larrauri holding the lead until the first switch of drivers, after which Blundell took over.

With four hours gone, Gianfranco Brancatelli replaced Blundell in the Nissan and collided with Aguri Suzuki's Toyota at the Dunlop curve, sending him into the pits and eventually into retirement. One Nissan was left at the front, driven by Geoff Brabham, Derek Daly and Chip Robinson, as three of the Jaguars retired during the night. But John Nielsen's XJR-12 took the lead in the small hours, the Dane driving a long stint in the knowledge that his co-driver, Price Cobb, was suffering from dehydration and would be unable to match his pace. That prompted Walkinshaw to switch Brundle to join Nielsen, and between them – with one very short stint from Cobb – the pair were able to see the car home to victory.

Second place looked destined for the Brun Porsche, in which Larrauri had shouldered most of the burden during the first half of the race before feeling sick and handing over to Jesús Pareja and Walter Brun himself. Pareja was in the cockpit when the oil pressure began to fall and, at fourteen minutes to four on Sunday afternoon, the car stopped at the Mulsanne corner and would not be coaxed back to life. It had covered 353 laps but, through failing to reach the chequered flag, could not be counted as a finisher. The Jaguar of Lammers, Wallace and Konrad went past to take second place, ahead of a Porsche with an all-British crew of Tiff Needell, Anthony Reid and David Sears. Among the twenty-eight finishers were representatives of all the Japanese teams, with a Nissan in sixth place, a Toyota one place further back and a Mazda in twentieth.

Sir John Egan, who had been knighted in 1986 for his success in transforming Jaguar's fortunes, was there to see the team take their second victory in three years. Behind the scenes he was discussing the possibility of a partial takeover by General Motors, his former employer in the US. But it was Ford who, in November, and perhaps spooked by GM's alleged interest, would soon agree to pay \$2.5 billion for Jaguar, twice its stock market value. Like Ford's purchase of a controlling interest in Aston Martin a year earlier, this signalled the American manufacturers' concern over the Japanese incursion into the luxury car sector and the cost of developing new models in response. The acquisition of British marques with long-established prestige seemed a short cut to a solution, and the Thatcher government tweaked the rules on foreign ownership of British companies to make it happen. The reaction at

home was not all positive. A *Motor Sport* reader living in north-west London did not welcome the US takeover: 'I reckon that this sad piece of business is all part of the pervasive and nasty standardisation and degradation which now shows itself in too many walks of life.'

There was a change of mood at Le Mans in 1991. At the scrutineering in the Quinconces des Jacobins, some of the old informality was disappearing. As *Motor Sport* noted, 'The townspeople were disconcerted to be physically barred from approaching the teams and the cars.' At the circuit, around £20 million had been spent on building new grandstands and a new pits complex to satisfy the demands of the FIA, with glassed-in VIP boxes replacing the old open balcony. The now universal use of radio links with the cars meant the end of the signalling pits at the Mulsanne corner.

The latest regulations devised by the governing body for its world sports car championship had also reshaped the race on the track. Category 1 included cars eligible for the new world championship, with non-turbo 3.5-litre engines like those of F1 cars and a minimum weight of 750kg, designed for the 270-mile races that now comprised the rest of the series. The intention was that these cars should make up the entire field at Le Mans. But when only seventeen entries were received, the race was opened up to a Category 2, comprising the old Group C1 cars, with engines of unlimited size but now with a minimum weight raised to 1,000kg in order not to humiliate their new Category 1 rivals.

To showcase the contenders in the FIA's championship, the Category 1 cars would be given the first ten places on the grid, arranged in order of their practice times. Jaguar and Sauber-Mercedes, who believed that the new lightweight cars would not have the stamina to last twenty-hour hours, were told that they could not enter Category 2 without also entering Category 1; each duly brought along a single example of the very different machines they had built for the new formula, only to withdraw them before the race, putting their faith in the latest versions of the cars that had won the Coupe à la Distance for them in recent years. The Jaguar XJR-12s now had engines enlarged to 7.4 litres, a change inspired by the discovery that they had won the previous year's race using well under the permitted 2,550 litres of fuel. Sauber-Mercedes returned with an improved turbocharged five-litre C11, one of their

three cars to be driven by graduates from the Mercedes junior team, a talent-development scheme with its origins in the 1930s.

Mazda's rotary-engined 787 was also entered, even though regulations due to come into force a year later would specifically ban diesel, two-stroke, rotary and turbine engines; everything, in fact, except the new engines shared by F1 and the Category 1 sports cars. For this last visit to Le Mans with an engine based on the combustion method invented seventy years earlier by Felix Wankel, the company invited Jacky Ickx to act as their consultant. The six-time winner's advice was to hand the running of the team to Hugues de Chaunac's Oreca organisation, based at Signes in Provence. Oreca had won the French Formula 3 title eleven times with drivers including Alain Prost and Jacques Laffite, while Ickx had driven for them in the previous year's Paris-Dakar Rally. De Chaunac's first contribution was to persuade the FISA not to enforce the extra 50kg above the normal minimum weight of 830kg for a Group C2 car imposed for Le Mans by the new rules.

For the home crowd, the big news was the return of Peugeot with the 905, a 3.5-litre coupé conforming to the new championship regulations, built at Peugeot Sport's headquarters in Vélizy, south of Paris, with a well organised team under the management of Jean Todt, a former rally navigator, and the technical director André de Cortanze, designer of the winning Renault of 1978. Robert Choulet of Aérodyne created the car's low-drag bodywork, exploiting a new rule permitting the use of polycarbonates to create a bubble-like windscreen, tested in the wind tunnel at the Dassault aircraft factory. Jean-Pierre Boudy drew up the V10 engine.

As the two Peugeots set off from their privileged Category 1 positions at the front of the grid, the question was over how long their drivers, Keke Rosberg and Philippe Alliot, could hold off the big Saubers and Jaguars starting from much further back. The answer was no more than an hour. That was the point at which Alliot came into the pits, only for a fuel spill to start a fire. The car continued with Jean-Pierre Jabouille at the wheel but less than an hour later the engine failed and the 905 was stranded at Indianapolis. The other car dropped back with an intermittent misfire before Rosberg, back at the wheel for a second stint, abandoned it on the Mulsanne straight with no gears.

By the time the Peugeots were gone, the Sauber team had taken charge, with a name new to Le Mans at the forefront. This would be Michael

Schumacher's only visit to the Circuit de la Sarthe, but he left a lasting impression. At twenty-two, he was a Mercedes-Benz protégé, as were his young co-drivers, Karl Wendlinger and Fritz Kreutzpointner. It was Schumacher who took the car into the lead in the second hour, a position it held ahead of the other two Saubers until Wendlinger committed the classic faux pas of crashing on cold tyres at the Dunlop curve at the start of his second spell, putting them back to sixth. Schumacher took over again and had them back in second place as he sped through the night, knocking five seconds off the previous year's record for the new circuit layout. Then they lost half an hour when the gearbox jammed in fourth and more time repairing the water pump.

As one car fell back, the other Saubers moved up to take its place. Even when an overheated engine removed one of them, the other appeared to be in a solid first place. Behind it was the fastest of the Mazdas, in the hands of Johnny Herbert, Volker Weidler and Bertrand Gachot, who had made their way through from nineteenth on the grid and now sat in an improbable second place, ahead of the Jaguars. It could not be said that their progress up the leaderboard was unobtrusive: the Mazda's four-rotor engine announced its presence to spectators with a high-pitched, high-volume scream, quite unlike anything else in the race and every bit as insistent as its colour scheme – panels of bright orange and emerald-green separated by white dotted lines.

With three hours to go, the leading Sauber made an unscheduled stop. Jean-Louis Schlesser, Jochen Mass and Alain Ferté had kept the car at the front for fifteen hours, but a water leak led to engine failure and their race was over. Now the Mazda could hold the lead over the three heavier, thirstier Jaguars, along with only eight more cars qualifying as finishers. Kreutzpointner, whose subsequent career would be as obscure as Schumacher's was conspicuous, was allowed to drive the final stint to bring the surviving Sauber home in fifth place, taking the last-ever Index of Energy Efficiency award. As de Chaunac, Ickx and the rest of the Japanese team celebrated their victory ahead of the TWR cars, Tom Walkinshaw may have consoled himself with the thought that his extensive portfolio of business interests included a chain of Mazda dealerships in the UK.

For the three drivers of the winning car, a victory at Le Mans came as compensation for Formula 1 careers that might have turned out differently. When Weidler made it into the top flight in 1989, it was with Rial, a small

German team. He entered ten Grands Prix that year, failed to qualify for any of them, and never returned to F1. Gachot had already been a member of four F1 teams by the time he won at Le Mans. In London six weeks later he received a short prison sentence for spraying CS gas into a taxi driver's face. Herbert, seen as the most naturally gifted of a new generation of young British drivers, had signed a contract with the Benetton F1 team for the 1989 season when an accident at Brands Hatch left him with severe leg injuries. Although he recovered in time to join his new team, he was not fully fit and was dropped after a handful of disappointing races. When he took the Mazda drive, he was still struggling to regain his foothold in F1.

Two other Mazdas finished the 24 Hours, in sixth and eighth places. Thanks to the FIA, there would be no more rotary engines at the Circuit de la Sarthe, a place that had always welcomed innovation. But for the Hiroshima-based company, the decision to buy the licence to Herr Wankel's invention had brought a dividend that could not have been foreseen when the contract was signed in 1961. Mazda had become the first Japanese manufacturer to win at Le Mans, and that was enough.

Un constructeur sort ses griffes. Translation: A manufacturer shows its claws. That was Peugeot's slogan, a reference to the rampant lion on the company's badge, familiar from stickers on the rear windows of its family saloons. Now Jean Todt, in charge of Peugeot Talbot Sport, was ensuring that nothing was left to chance as he brought the team's new car – the 905 Evo 1B – back to the Sarthe in 1992. Six full-scale test runs had been conducted at the Paul Ricard circuit, where two chicanes were created to make the 1.8-kilometre Mistrale straight more closely resemble its equivalent at Le Mans. The team arrived for scrutineering with half a dozen cars: three specially built for the race itself and three of the sprint versions – one of which had won the second round of the championship series at Silverstone in the hands of Derek Warwick and Yannick Dalmas – to use in practice.

Only three teams had agreed to enter the FIA's new world championship series – Peugeot, Mazda and Toyota, each paying an entry fee of \$600,000 per car. Jaguar and Mercedes had opted out. Since this meant that only a dozen cars were registered, emergency measures had to be taken and Jean-Marie Balestre, the volatile FIA president, recognising that Le Mans was in danger,

turned his back on Mosley and Ecclestone. But it was the ACO's president, Michel Cosson, who took on the job of resuscitation, opening up the race to various other classes, extending deadlines and making exceptions where necessary.

In the end, a field of twenty-eight cars was assembled: the lowest at Le Mans since 1932, when the world had been in the grip of an economic crisis, and only just over half the capacity of fifty-five which had been reached as a matter of course in the 1970s and early '80s. 'Everything was in play and we might have collapsed,' Cosson would reflect many years later. The public had caught the mood, too. Only 176,000 turned up, down from 250,000 the previous year, despite the strong possibility of a Peugeot victory.

As if in sympathy, the weather did its worst. The Peugeots of Dalmas and Philippe Alliot led in unpleasant conditions at the start but were soon overtaken by the new Mazda of Volker Weidler, a car created in the aftermath of the ban on rotary engines from a Jaguar XJR-14 chassis acquired from TWR, plus a Judd V10 engine, all put together and heavily reworked by Mazdaspeed in Hiroshima. The Peugeot shared by Dalmas with Derek Warwick and Mark Blundell retook the lead in the second hour and held it to the end, despite a few minutes lost in the morning during stops to replace the battery and the black box after Warwick had slowed alarmingly on the Mulsanne straight. It finished the race six laps ahead of Kenny Acheson, Pierre-Henri Raphanel and Masanori Sekiya in one of three new Toyota TS010s run by the company's TOMS GB team. Third was the Peugeot crewed by Alliot, Mauro Baldi and Jean-Pierre Jabouille, delayed by several stops for bodywork repairs after excursions into the barriers.

In thirteenth place, of the fourteen cars that qualified as finishers, was one of two Lolas built for the new FIA formula and powered by Judd V10 engines. No longer with links to a manufacturer, Eric Broadley decided to build the T92/10 for sale to customers. The only one he found was Charles Zwolsman, a Dutchman who bought a pair of the cars – the only two made, as it turned out – for his Euro Racing team. The funds came from an unusual source. After his flower export business went bankrupt, Zwolsman did much better as a drug dealer, shipping large quantities of marijuana between North Africa and Europe. His success bought him a 115ft yacht berthed in Saint-Tropez, and in 1992 he launched himself as a team owner at Le Mans, with Heinz-Harald Frentzen, a future Grand Prix winner, and himself among the drivers. He,

Frentzen and Shunji Kasuya overcame various problems to get one of the cars home. Back in Holland the following week he was arrested for speeding, found to have violated bail conditions while awaiting earlier charges and sent to prison. There would be more arrests for drug smuggling and money laundering in the following years before, in 2010, he was caught in possession of 2,000 kilos of hash and four guns. He died in prison the following year, aged fifty-five.

When the FIA cancelled the 1993 sports car championship before it began, it was an admission from the governing body of world motor sport that its 3.5-litre formula had been a disaster, providing tiny fields for shrunk versions of what had once been important races. For Bernie Ecclestone, there was a dividend when Jaguar, Mercedes, Toyota and Peugeot moved into his F1 world. But Max Mosley got something right when he put the emphasis of future international competition on a championship for GT cars, although the detail of his idea – a ‘silhouette’ formula using the outline of production cars with 3.5-litre F1 engines – was absurd and unwelcome. But a new breed of supercars had appeared. A Bugatti EB110 had been timed in Italy at 212.5mph, a new record for road-going cars, beating the mark set by Jaguar’s XJ220 by 0.2mph. That also made it faster, at least in a straight line, than the Lamborghini Diablo or the Ferrari F40.

Whatever his motives, the evidence that Mosley was at least vaguely on the right lines came in the three Jaguars with which TWR Racing returned to Le Mans, very different from the pure racing machines with which they had won in 1988 and 1990. The XJ220 was a supercar in intention and execution: something with just enough luggage space for a weekend for two in Deauville but also capable of being transformed into a formidable weapon on the track. Designed by Richard Owen around the twin-turbo 3.5-litre V6 originally installed in the Austin Metro 6R4 rally car, its smooth lines carried hints of earlier Jaguars. When the decision was taken to enter it at Le Mans, Owen had six months to turn it into a racer.

There was little time or opportunity to get it working properly. A visit to the test day at Le Mans with two cars and the drivers David Brabham and Armin Hahne produced lap times twelve seconds slower than those of the latest works-prepared Porsche 911 Turbo S LM in the hands of Hans-Joachim

Stuck. A fifteen-lap GT race at Silverstone gave a chance for more set-up work, but victory over a field of club racers was hardly the ideal preparation for the Grand Prix d'Endurance.

The return of Grand Touring cars to Le Mans revived the intentions of the original rule-makers, who had stipulated the fitting of full road equipment. For the ACO, however, they could only be part of the story. In an attempt to restore the size, quality and diversity of the grid, Michel Cosson supervised the creation of a new set of bespoke regulations that invited entries in four additional categories: Category 1 for the 3.5-litre sports cars of the now defunct FIA series, Category 2 for the old Group C cars with performance cut by air-inlet restrictions, Category 3 for sports cars with production-based three-litre engines from the American IMSA series, and Category 4 for modified production GT cars such as the new Jaguar. Cosson knew that fans would always want to see prototypes at Le Mans. But other traditions were to be honoured, too. His compromise was not perfect, but it began a revival of the co-existence between prototypes and GT machinery in the 24 Hours.

As president of the FISA, the FIA's sporting commission, Mosley's priorities were different. He saw the ACO's control of a single world championship race as an anomaly. 'Although technically under the FIA,' he wrote in his autobiography, 'the Le Mans race was so important that the organising club was able to make its own rules for this one event, and I never managed to persuade them to join fully in a central rule-making process. Their rules had to be submitted, of course, and we could veto anything dangerous or unfair, but we could not insist that the Le Mans people sit down with other organisers in an FIA commission to agree common technical rules.'

As so often with Mosley, his adversary was dismissed with a sneer: 'The person responsible for making the technical regulations for Le Mans liked to announce them each year. It was his big moment, but it didn't make for stability or a universally applicable set of rules. For obvious reasons, stable rules common to all competitions in each category, and which do not change unpredictably, are important to anyone building racing cars. I made several attempts to sort this out but had no success.'

Such 'attempts' had halved the size of the field at Le Mans, and the bid by his partner, Bernie Ecclestone, to control the race's broadcasting rights had significantly reduced its television presence. Now Le Mans was taking its affairs back into its own hands, with the result that forty-seven cars would

start the 1993 race, ranging from Peugeot, Toyota, Courage and Porsche prototypes to the Jaguar XJ220s, Porsche 911s, Venturi 500LMs, Lotus Esprits and a Ferrari 348 due to contest the GT class. The show was back on the road, even if it would take a while to rebuild the public's trust and rekindle their enthusiasm. On a warm, sunny weekend, only 110,000 turned up for the race.

Sensibly, the ACO had ended the absurd practice of allowing competitors to qualify in cars they had no intention of racing, configured only for that purpose. Peugeot's Philippe Alliot took pole position for the third year in a row, and attention at the start was drawn to the three low-drag works 905s and three high-downforce TOMS Toyota TS010s, all designed to a now doomed formula that essentially made them Grand Prix cars kitted out with enveloping bodywork and lights.

One consequence of the latest changes was the return of the speed differential, with all the challenge it presented to the drivers of the faster cars, and during the morning warm-up a Ferrari 348 driven by 'Stingbrace' – Stefano Sebastiani, the Italian manager of a Knightsbridge hotel – had been destroyed in a collision with Eddie Irvine's Toyota. Minor damage to the Irishman's car was repaired in time for the start and he took the lead from Alliot on the second lap. The two teams battled it out through the night, but transmission problems eventually hobbled all three Toyotas, leaving the home team unchallenged in the final hours. Going one better than the year before, Peugeot's drivers filled the podium, the first French manufacturer to accomplish that feat since Lorraine-Dietrich in 1926.

Of the winning crew, Éric Hélary and Christophe Bouchut were both former French F3 champions, while Geoff Brabham was watched by his father, Sir Jack, a triple F1 world champion whose own three visits to Le Mans between 1957 and 1970 had ended less happily. For Peugeot, the clean sweep of the podium represented a glorious swansong. Jean Todt, the mastermind of their renaissance, had already announced his intention to accept an invitation from Ferrari to revive the fortunes of their underachieving Grand Prix team. Peugeot, too, would be leaving the Sarthe to concentrate on rallying and, less happily, supplying engines to F1 teams, just as Bernie Ecclestone had planned.

A Bugatti was back at Le Mans in 1994, thanks to the ACO's response to the governing body's assault on endurance racing at the beginning of the decade.

So were Ferrari, Lotus, Alpine-Renault and De Tomaso. Honda and Dodge were making their debuts. All these were among the twenty-one makes of car on the grid, compared to ten in 1991, eleven in 1992 and twelve in 1993. Not bad, considering that Sauber-Mercedes, Jaguar and Peugeot had all bowed out. The organisers had taken back control over the categories of car eligible for their race. Unable to wait for the FIA to produce the definitive version of their new rules, and wanting a full grid, they went back to creating their own. Inevitably, the result was complicated.

LMP1 was for the old Group C cars, such as the Porsche 962. LMP2 was for centre-seater prototypes with production-based engines. LM-GT1 was for road cars of which at least twenty-five examples had been produced in the previous twelve months, such as Ferrari F40s and an old De Tomaso Pantera. For LM-GT2, proof of the manufacture of 200 examples of cars such as the Porsche 911, the Lotus Esprit and the Ferrari 348 was required. More radically, the ACO had devised a new way of increasing the competitiveness within each category by controlling consumption, horsepower and dimensions. This, too, was a complex business. Parameters of fuel tankage, air inlets and weight were established in order to create a formula that would become the basis for the 'balance of performance' concept. Meanwhile, lap times were thirty seconds slower and the very fastest cars were barely touching 200mph.

But in every set of rules there is a loophole, and Porsche discovered one through a relationship with Jochen Dauer, whose Nuremberg-based team had competed with their 962s in the Interserie championship, a kind of Formula Libre for sports cars. Dauer wanted to build a road-going 962 that he could race as a GT car, thus free from the restrictions on the Group C cars' engine power while exploiting the possibility offered by the GT cars' 120-litre petrol tanks, enabling them to refuel every sixty minutes as opposed to every forty for the prototypes, which were restricted to a capacity of eighty litres.

The scheme was sanctioned by Porsche when their chief engineer, Norbert Singer, and their new sporting director, Max Welti, realised it could give them a car to beat the mid-engined McLaren F1, whose imminent arrival was expected to set new standards in GT racing. Dauer had built his own prototype before three more were constructed at the Porsche racing department in Weissach, all meeting the LM-GT1 regulations in respect of having two seats, luggage space, a 120-litre fuel capacity and a minimum weight of 1,000kg. When they were shown to the ACO, a great deal of arguing

was required to persuade the officials that the cars, although clearly well outside the spirit of the rules and looking very much like the old Group C machines, met the new technical requirements for GT racers in every respect.

The overall winner was expected to come from among the full-blown prototypes, including a Porsche 962-based spyder developed by the Kremer brothers and called the Kremer K8, driven by Derek Bell and sponsored by Gulf Oil. But the most dramatic cars in the field were in other categories, and particularly those designed with the engine in front of the driver: the Nissan 300CX, the Dodge Viper and the first Chevrolet Corvette seen at Le Mans in eighteen years, a heavily modified machine prepared by Callaway Competition in Germany. Mid-engined GT cars included two works-entered three-litre Honda NSXs, built in Northampton and run by the Kremer brothers, one of them carrying an innovation that would eventually become universal in top-level motor sport: a TV camera inside the cockpit, focused on the view through the windscreen.

To many the most eye-catching entry of all was the Bugatti, the first car bearing that name to compete at Le Mans since the victory of Wimille and Veyron in 1939. When Ettore Bugatti died in 1947, with no heir since the death of his son Jean, and with the factory in ruins, the company effectively ceased to exist. The name was acquired in 1989 by Romano Artioli, a Ferrari dealer and Suzuki importer in northern Italy and southern Germany who commissioned Marcello Gandini, designer of the Lamborghini Miura and Countach, to create the prototype of a new supercar in the spirit of the marque. The one entered at Le Mans by a French magazine publisher, Michel Hommell, was an EB110 Super Sport with a quad-cam 3.5-litre V12 engine and appropriate modifications for racing, painted Bugatti blue and driven by the experienced all-French crew of Éric Hélary, Alain Cudini and Jean-Christophe Bouillon.

The two-car Dauer team, with a full squad of Porsche works drivers, looked strong from the start, their 'GT' cars matching the prototypes for pace. Hans-Joachim Stuck spun on the opening lap but was soon vying with his teammate Mauro Baldi for the lead, ahead of Derek Bell's Kremer spyder and the Courages of Alain Ferté and Pierre-Henri Raphanel – every one of them Porsche-powered.

The anti-Porsches in the leading bunch were the two Toyotas, Eddie Irvine and Bob Wollek mounting a challenge that saw both cars taking the lead

during the evening, competing with the Dauers after the two Courages retired. An hour spent replacing the differential on Wollek's Toyota during the night pushed the car down to fifth place, but its teammate was in a lead made seemingly more secure when the Dauer of Stuck, Danny Sullivan and Thierry Boutsen was delayed first by a blown tyre, then by the headlights failing when Boutsen was approaching Tertre Rouge at around 160mph, and later still when the left rear suspension broke as the car went over the kerb at the Mulsanne corner.

The Toyota shared by Irvine, Mauro Martini and Jeff Krosnoff led the race from the fourteenth to the twenty-second hour. But at half past two in the afternoon, with ninety minutes to go, Krosnoff came to a halt at the side of the track by the end of the pit straight. The IndyCar driver from Tulsa, Oklahoma, got out, knelt down at the back of the car and began fiddling with the gear linkage. A weld had broken, but he managed to find a gear – third – with which he could restart the car and complete the lap back to the pits. By the time the repair was complete, they were down to third place.

The Dauer of Baldi, Yannick Dalmas and Hurley Haywood was now in an unassailable position, but Irvine replaced Krosnoff in the Toyota and set off to try to snatch second place from Boutsen in the second of the German cars. In the final minutes the spectators were entertained by the sight of the pair slicing through the flock of slower machines cruising round to the finish, scattering the marshals who had emerged from their posts to wave their flags at the finishers in the traditional salute. In the end Boutsen had no answer to Irvine's assault.

Haywood took his third win, Dalmas his second, Baldi his first. The Dauer-Porsche GTs had beaten the prototypes, finishing first and third. Jochen Dauer made and sold a dozen replicas of the winning car; a year later he was also making replicas of the Bugatti, which had run in the top ten for a while and lasted until the final hour before crashing. In 2008 he was bankrupt and fled Germany for Switzerland, where he was arrested on a charge of tax evasion to the tune of €5 million and returned to Nuremberg for a trial at which he was sentenced, aged fifty-eight, to forty-two months in prison.

CHAPTER 18

Flying on the ground (1995-99)

As preparations for the 1995 race began, the organisers were mourning the loss of a man who had been as much a part of the story of Le Mans as anyone. Luigi Chinetti had died at his home in Greenwich, Connecticut, aged ninety-three. He had competed at Le Mans as a driver a dozen times between 1932 and 1953, winning on three occasions, and had entered scores of cars over a span of five decades.

Like Chinetti, Ron Dennis had begun his life in motor racing as a mechanic, working on the Cooper F1 team in the 1960s. And like Enzo Ferrari, he had a vision, with himself at the centre of it. Able and highly ambitious, he rose fast and in 1980 he took over the ailing McLaren F1 organisation. After that there would be many great moments in his career: the Grand Prix season when Ayrton Senna and Alain Prost won fifteen out of sixteen rounds of the world championship in his cars, or the day when Queen Elizabeth II opened his breathtaking £200 million headquarters, designed by Norman Foster, on a fifty-hectare site in the Surrey stockbroker belt. In the history of motor racing, few narratives of one man's rise have been more extraordinary. Eventually his team and his company would be taken away from him after he fell out with investors he had brought in as friends. But those achievements were real enough, and extraordinary enough. And among them was the day he matched Enzo Ferrari by sending his cars to Le Mans for the first time and seeing one of them come back a winner.

The mastermind of the McLaren F1 GTR was Gordon Murray, the South African engineer who had designed Alain de Cadenet's first Le Mans car before creating championship-winning F1 Brabhams for Bernie Ecclestone in the early 1980s. When Murray joined McLaren as technical director in 1987, the team was approaching the zenith of its success as a specialised F1 constructor. The following year, during a conversation while waiting for a flight home from the Italian Grand Prix, Murray and Dennis discussed the possibility of building a supercar: a road-going machine that could reach 200mph.

Just under five years later that car, called the McLaren F1, was launched during the week of the 1993 Monaco Grand Prix: a low-line three-seater with the driver in the middle, based on a carbon fibre composite monocoque, powered by a 6.1-litre, 620bhp BMW V12 engine with a six-speed gearbox. For £634,000, the customer also got active aerodynamics and – thanks to Murray's love of music – the smallest and lightest ten-disc CD player ever. With the vision of creating the fastest possible road car, the designer had originally wanted to make it a single-seater. Persuaded to add room for passengers, his idea of compromise was to maintain the weight balance by putting the driver in the middle, slightly ahead of the other two seats.

By the time a couple of customers talked Dennis into producing a racing version, McLaren's fortunes in F1 had slumped. Senna, dispirited by the team's underpowered Ford engines, had left at the end of 1993, Peugeot proved to be an unsatisfactory engine supplier the following season and 1995 began badly when Nigel Mansell, recruited amid great publicity, left after only two races, complaining about the new Mercedes-engined car. A boost was needed, and the F1 GTR supplied it.

Three cars were made in the initial batch, for Thomas Bscher, a German banker, Ray Bellm, an English racing driver, and Lindsay Owen-Jones, the chairman of L'Oréal, the cosmetics company. A rear wing was added; the CD player was omitted. Then McLaren made three more. All six were entered for Le Mans, along with a seventh, the original prototype, loaned to Lanzante Racing, a British team sponsored by a Japanese slot-machine company, Kokusai Kaihatsu. Ironically, given that Murray's vision had been to create the world's fastest road-going supercar, the BMW engines in all the cars had to be detuned to 600bhp for racing in order to meet the GT1 regulations, the new class for cars based on limited-production models: the category for which the

ACO had devised rules intended to make them competitive with the prototypes now grouped in the World Sports Car class. Since 100 road-going McLaren F1s had been sold, there was no need to look for the sort of loophole exploited by Porsche and Dauer the previous year. And so inviting were the regulations that McLaren's rivals in GT1 would include special Nissan Skylines and Toyota Supras, a Corvette ZR-1, the latest Porsche 911s, Ferrari F40s, Honda NSXs, Jaguar XJ220s, a Venturi and a Jaguar-engined Lister Storm.

But it would be the prototypes that caught the public's attention. In addition to two Kremers and two Porsches, the field included the first open-cockpit prototype Ferrari seen at the Sarthe in more than twenty years. This was a four-litre V12-powered mid-engined spyder commissioned for the US IMSA series by Giampiero Moretti, the Milanese founder of the Momo design company, designed in collaboration with Gian Paolo Dallara. Although its engines were built in Maranello, its eventual production run of forty cars was divided between Dallara's workshops outside Parma and the Michelotto company in Padua. For its first appearance at Le Mans, the yellow-painted 333SP had a stars and stripes flag on its flanks and René Arnoux, a former Ferrari F1 ace, among its drivers.

On the night before the race, 40,000 people thronged the streets of Le Mans. Two years earlier, the committee members of the ACO needed persuading when Philippe Pasteau, an educational adviser at a local college, presented them with his plan for a *Parade des pilotes* to bring the drivers closer to the spectators and to the city itself. Once their scepticism had been overcome, the mayor's permission was obtained. Its starting point was the Place des Jacobins, in front of the cathedral of Saint-Julien, in the spot where the film *Le Mans* had begun twenty-five years earlier with Steve McQueen, playing the driver Michael Delaney, watching Elsa Andersen, as the widow of a former rival, buying flowers. Now the streets were closed as each three-driver team – including just one woman, Lilian Bryner, a former Swiss Olympic showjumper entered in a Porsche 911 – sat in the back of an open-topped classic car to show themselves to the public. It was a great success.

The start of the race itself was a feast for patriots, since two of Gérard Welter's WR-Peugeots had placed themselves on the front row: small, slippery single-seater spyders driven by Patrick Gonin and William David. Always popular with the crowd, the underdogs from Thoiry-sur-Marne started in front of the Courage-Porsche of Bob Wollek, the Courage-Chevrolet of Henri

Pescarolo and Hans Stuck's Kremer-Porsche. Behind them were three privately entered Ferrari F40s, whose practice times had put them ahead of a squadron of McLarens led by Yannick Dalmas, sharing the black-painted Kokusai Kaihatsu car with J. J. Lehto and Masanori Sakiya, the reigning Japanese touring car champion. They were followed by the West FM-sponsored car of John Nielsen, Jochen Mass and Thomas Bscher and the car of 53-year-old Derek Bell, his 27-year-old son Justin and Andy Wallace, resplendent in the gold and green colours of the Harrods department store. Further down the grid was a McLaren running not on the ACO's standard-issue petrol but on fuel distilled from beet.

The track was dry at the start and the WRs, with 400bhp to propel cars weighing a mere 650kg, led for the first hour, with no one imagining that it could last. Heavy rain began to fall but it was not yet dark when Gorin's car, approaching the hump on the Mulsanne straight at top speed, suddenly flipped and landed on its back. It took more than half an hour to extricate the driver, but he was unharmed and the car, now back on its wheels, was pushed away. The other WR had been in the pits to have its driveshaft replaced and was heading back towards the top ten when the fuel pump failed.

Mass's McLaren led as conditions worsened, chased by Wollek in the Cougar until Mario Andretti took over and collided with a backmarker. The Ferrari prototype had made it from seventeenth on the grid to fourth place with Massimo Sigala at the wheel before its electrics failed with only seven laps gone, and the F40s were unable to live up to their qualifying pace. By midnight the McLarens were lying first, second, third and fifth, the Mass/Nielsen/Bscher car leading from the Harrods car of Bell, Bell and Wallace and the Gulf-sponsored entry shared by Philippe Alliot, Pierre-Henri Raphanel and Lindsay Owen-Jones. Damage from a collision with a slower competitor forced the Gulf car into retirement, and at four in the morning the West car gave up when a replacement clutch failed out on the circuit.

With six hours to go the Harrods car was out front, ahead of the Kokusai Kaihatsu entry, with the Wollek/Andretti/Éric Hélary Cougar chasing hard in third. Four hours later Derek Bell was a lap ahead of the second-placed car and anticipating a sixth victory when the gearbox started playing up. The Japanese-sponsored car went past into the lead, with Wollek taking second place and Bell dropping to third. It had rained for eighteen hours out of the twenty-four, turning the race into an ordeal that, once it was over, made

victory taste all the sweeter for the drivers of the black McLaren. For Dalmás, it was a third win. Lehto, praised for a brilliant night-time stint in the worst of the conditions, became the first Finn to take the overall victory at Le Mans. Sekiya was the first Japanese to claim that distinction; this was his ninth Le Mans, a place he had grown so fond of that in 1987 he had held his marriage ceremony in the city.

‘This shows that the regulations are perfect,’ Herbert Ampferer, Porsche’s competitions director, said after twenty-four hours of racing around Le Mans in 1996 proved that there was now little to choose in performance terms between the prototypes and the GTs. Perfect for Porsche, anyway. The company’s fifteenth win in the Grand Prix d’Endurance was far from ideal for those competitors hoping to dent the confidence inspired in the Stuttgart company by forty-five years’ worth of experience at the circuit, or for spectators relying on the race’s occasional knack of delivering unpredictable outcomes. The ACO’s rule-makers had succeeded in their ambition of adjusting the regulations so that GT coupés with a clear resemblance to series-production road cars could compete on equal terms with open-cockpit prototypes built only for racing. It had given Porsche the chance to show their ability not just to design and develop a winning car but to do it in two different modes, both with turbocharged flat-6 engines.

The ancestry of the TWR-Porsche WSC 95 was complicated. A lightweight spyder, its chassis was originally designed by Ross Brawn for the Jaguar XJR-14 coupé and had already been recycled by Mazda in 1992. Now it became the basis of a pair of Porsche-engined cars built for the 1994 IMSA championship but withdrawn after a dispute over the regulations. Two years later the cars were handed over to Reinhold Joest and developed as works-backed entries for Le Mans. One, painted white, would be driven by Michele Alboreto, Pierluigi Martini and Didier Theys, the other, finished in black, by Davy Jones, Manuel Reuter and the young Austrian Alexander Wurz, a BMX world champion ten years earlier, when he was twelve years old.

The official Porsche racing department in Weissach had also been working on a GT car to beat the McLarens. The task was to turn the rear-engined 911 into a mid-engined coupé, while building two road-going versions in order to secure approval for an entry as a GT car – once again exploiting the gap in the

ACO's rulebook between intention and wording. The 911 GT1s were closer to the 962 Group C prototypes than to the cars that had ostensibly been their parents, but Porsche were canny enough to make them resemble conventional 911s flattened into a windcheating shape. With their acceptance by the organisers, the fate of the McLarens and everybody else was sealed. Hans-Joachim Stuck, Bob Wollek and Thierry Boutsen would be in one car, Yannick Dalmas, Karl Wendlinger and Scott Goodyear in the other.

To keep clear of the matches in Euro 96, the quadrennial European football championship, the race was brought forward by an hour. As the sun shone and the temperature rose, the man with the giant tricolour on the gantry over the start line was the actor Alain Delon, last seen at Le Mans in the company of his then girlfriend, Mireille Darc, in 1980. Always on the lookout for a novel approach, the ACO had decided to line up the fastest prototypes down one side of the grid with the fastest GT cars down the other. The two GT1 Porsches of Wollek and Dalmas jumped into the lead, followed by the scarlet Ferrari spyder of Eric van de Poele and Joest's two TWR-Porsches, with Jones and Theys in their cockpits. As the Ferrari slid back, its Pirelli tyres overheating, the Joest cars loomed more menacingly in the mirrors of the GT1s. After an hour Jones and Theys slid past Wollek and Dalmas.

With six hours gone and darkness beginning to fall, the sight of four Porsches leading the race would indeed appear to have vindicated the organisers' handicapping system. Whereas the GT1s required refuelling every thirteen laps and needed a change of tyres at every stop, the prototypes were called in for fuel every twelve laps but could cover three stints before requiring a longer stop for new rubber, being lighter and permitted to use wider tyres. The delicate balance was maintained until Dalmas dropped back after going off at the Mulsanne corner and coming in for a new brake caliper, falling further back after both his co-drivers also spun during the night.

Two Ferrari 333SPs had been brought to France by Andy Evans, the chief financial officer of Microsoft, who intended to drive one of them himself. On the second lap he went through the sand and into the barrier at the Mulsanne corner, requiring lengthy repairs before resuming and then running out of petrol two hours later. The other car crashed at the Esses. By breakfast time all six Ferraris, including four F40s, had vanished. The seven McLarens had wilted in the face of the Porsche GT1s, beaten not just for speed but by the weather: a hot weekend exposed the weakness of the cars' transmission.

As the second Porsche GT1 worked its way back through the McLarens, the chance of a 1-2-3-4 for the German marque was ended when electrical problems stranded Alboreto on the Mulsanne straight in the third-placed white spyder. The black car took the chequered flag, adding two new names to the roll of honour alongside that of Manuel Reuter, the 34-year-old from Mainz winning for the second time. One was Davy Jones, a 32-year-old from Chicago who had looked a cert for F1 when he raced against Senna and Brundle in the British F3 championship as a teenager. The other was Alex Wurz, wearing one blue boot and one red, as was his habit, and now, at twenty-two, the youngest driver ever to win the 24 Hours.

Sixth place in the Harrods-sponsored McLaren brought an end to Derek Bell's career as the most successful British driver in the history of Le Mans. During his childhood he had listened to radio reports on the exploits of Stirling Moss and other heroes at the Sarthe. His five wins, a second place and two thirds had come from twenty-six starts in twenty-seven years between 1970 and 1996. There were certainly times when he had mixed feelings about the race. In general, he thought, people were wrong to romanticise it: 'The truth is it's not romantic at all. It's hellishly demanding, gruelling and exhausting.' But that's exactly how it had been for his heroes when he was a schoolboy. Now, as he slipped into history alongside them, he had become part of the romance.

When Don Panoz fell for motor racing, he fell hard. The arrival of his team in 1997 created the sort of buzz enjoyed by previous generations of transatlantic visitors, a reminder that wealthy Americans and their big, noisy cars had always been welcome at Le Mans. They brought money and glamour and noise, and when Michel Cosson met Panoz, the president of the ACO saw the opportunity for opening a relationship that could secure the future of the Circuit de la Sarthe and its twenty-four-hour race.

Don Panoz's father had emigrated from Abruzzo in Italy to the US in the 1900s, earning a living as a professional boxer until retiring from the ring after losing two fights in a row in 1935, around the time of his son's birth. Don, a business studies graduate, made his fortune with the technology that created the nicotine patch, releasing medication through the skin. In 1992 he helped his son, Danny, in the construction of the first Panoz car: a cycle-fendered

roadster, powered by a big Ford V8, it had no hood, no radio and no heater. Those features would be found on its successor.

The Esperante GTR-1 was designed by Adrian Reynard, the founder of a specialist company in England which had become successful through building single-seaters. At Danny Panoz's insistence, the car would be powered by a Ford V8 mounted ahead of the driver, in the tradition of American hot rods and muscle cars. But while the layout evoked elements of a legendary past, the design and construction were thoroughly modern. Soon after its debut in 1997 the car won a short race at Road Atlanta and three examples were ready for Le Mans in 1998, two entered on behalf of Panoz by David Price Racing and a third by DAMS, a French team based at Ruaudin, close to the circuit. One road-going example had also been built, to satisfy the minimal homologation requirement for the GT1 category.

The size of the entry meant that pre-qualifying days were again organised in early May, but the mood was darkened by a fatality. Sébastien Enjolras, a member of a Montpellier family devoted to motor sport, was barely twenty-one when he went out in a new WR spyder. On the high-speed section between Arnage and the Porsche curves, the unpainted black bodywork began to detach itself from the chassis. The car somersaulted over the barrier, disintegrating as it hit a pole before flying into the trees and exploding. Enjolras died instantly. Gérard Welter and his wife Rachel, in whose names the cars were now entered, withdrew their cars from the race.

Reinhold Joest had been given the 1996-winning car by Porsche. A year later he brought it back, this time with Michele Alboreto, Stefan Johansson and Tom Kristensen at the wheel. Alboreto and Johansson, both forty years old, had been together for a couple of seasons in Ferrari's Grand Prix team in the mid-1980s, only to leave the Scuderia in disillusionment. Joining them in the TWR-Porsche spyder, Kristensen was from another generation. A 29-year-old Dane, he had been the Formula 3 champion of Germany and Japan but had failed to break into F1. It was only nine days before the race that Joest, instead of accepting the sort of money – around \$200,000 – that he could have raised from a gentleman driver ready to pay for his ride, offered him the chance to replace the injured Davy Jones as the car's third driver. Kristensen accepted, on condition that he could keep a testing appointment with his F3000 team during Le Mans week, which would reduce his pre-race experience of the car to twenty laps.

Tom Walkinshaw, whose team had built the chassis that had been cannibalised to form the basis of Joest's car, was now involved in another project, one that looked like the greatest threat to Porsche's prospects. On Nissan's behalf he had invited Tony Southgate to draw up a new mid-engined GT1 car to compete with the Porsches and the McLarens. The Nissan R390 was designed specifically and exclusively for Le Mans, with low-drag bodywork and a 3.5-litre twin-turbo V8. After testing at Estoril, the car was taken to the pre-qualifying days, where in the hands of Martin Brundle it proved quickest of all.

In the GT class, Porsche answered the rivals they had annoyed by turning up with the 911 GT1 a year earlier by building thirty road-going versions of the car. For £457,000 the purchaser acquired a road car mostly made out of carbon fibre, with 544bhp on tap in a vehicle of the same weight as a Ford Escort. The works team arrived at Le Mans with two examples of the GT1 Evo, and there were half a dozen customer cars. Facing them were five McLarens, including two works BMW entries run by the Schnitzer team, all heavily reworked by Gordon Murray, with a new gearbox to remove the principal weakness of the previous year.

Alboreto was on pole position in an all-Porsche front row, with Bob Wollek alongside in one of the GT1 Evos. Again the prototypes were lined up on the left, with the GTs on the right. Wollek got away first but Alboreto was soon past him and into a lead he held for two hours, ahead of the two works Porsche coupés and the Nissans of Brundle and Eric van de Poele. The Nissans' hopes were dimmed, however, when all three of the TWR-run cars encountered the same problem of overheating transmissions. A sudden clarification of the rules ten days earlier, when the ACO emphasised that they expected GT1 cars to have luggage space, forced Southgate to reroute the R390's exhaust system and change the arrangements for cooling the gearbox. A car that looked competitive during pre-qualifying was suddenly vulnerable. The Brundle and van de Poele cars would be out before dawn; the third entry would limp home in twelfth place.

At least that was better than the fate of the works Porsche GT1s, which ran first and second all night until Wollek ran over a kerb and damaged the car so badly that he was unable to get back to the pits. The other car led until just before the end of the twenty-second hour, when an oil leak set the rear of the car ablaze as Ralf Kelleners neared the end of the Mulsanne straight. A

catastrophe for the factory team, but the Joest TWR-Porsche was available to take a winning lead, while two McLarens – the Gulf car of Pierre-Henri Raphanel, Jean-Marc Gounon and Anders Olofsson and the BMW entry of H  lary, Peter Kox and Roberto Ravaglia – took second and third.

Alboreto returned to the wheel of the TWR-Porsche for the closing stint, but Kristensen, the junior partner in Joest’s winning trio, earned special praise for an important night-into-day quadruple shift on a single set of tyres that included a new lap record and ensured that the car was in position to take advantage of others’ misfortune. The experience had given him the taste for an event that would shape his career, and whose modern incarnation he would help define.

By the time the Grand Prix d’Endurance celebrated its seventy-fifth birthday in 1998, the potency of Le Mans as a marketing and advertising tool was well established among those wishing to trade on associations with the race and its rich history. The Heuer Monaco, a square-cased wristwatch launched in 1969, had been named in honour of the Grand Prix around the streets of the principality, but two years later it acquired an association with a different race when filmgoers saw Steve McQueen wearing one in *Le Mans*. The watch turned out to be a bigger hit than the movie. An original example, given by McQueen to his personal mechanic at the end of the shooting, would one day fetch \$2,208,000 at auction. And leading the field around the parade lap in 1998 was a Bentley saloon, a new model named the Arnage, its UK registration plate ‘1 WO’, honouring the marque’s founder, who had been present at the very first 24 Hours in 1923.

If the past was now an inextricable part of the identity of Le Mans, new developments were its lifeblood, and the intensity of the competition among the leading entrants went up a notch in 1998. Porsche had taken the development of the 911 GT1 a step further, with a carbon-fibre and honeycomb monocoque under more aerodynamic bodywork. Toyota had completely reorganised their Le Mans project, relocating it to Cologne, putting Ove Andersson, the former head of their rally team, in charge and inviting Andr   de Cortanze, the designer of the Peugeot 905, to draw up the new GT-One. Based on a turbocharged 3.5-litre V8 engine, it was homologated

for Le Mans via the construction of two road-going examples. At Nissan, the partnership with TWR saw improvements to Tony Southgate's R390 GT1.

But the big news in the GT and prototype categories came from Germany. Mercedes-Benz arrived with the CLK-GTR, a GT car built by AMG, the Bavarian high-performance specialists, in which Mercedes had acquired a majority stake. Successful in the previous year's FIA GT championship, now it had a six-litre V8 engine replacing its original V12. Among the prototypes, a formidable new challenge to the Porsches and Ferraris came from BMW, whose six-litre V12 engine was now installed in a neat low-drag spyder built at the Williams factory in Oxfordshire, as a prologue to a full-blown Formula 1 partnership between the two companies, due to begin in 2000. The new Le Mans car was designed by John Russell, formerly a race engineer to Damon Hill and Nigel Mansell.

Mercedes' intentions were displayed when Bernd Schneider and Christophe Bouchut placed the CLKs first and third on the grid, sandwiching Martin Brundle's Toyota. Behind them sat the Porsche GT1s of Jörg Müller and Allan McNish; the idea of putting the prototypes and the GTs side by side at the start had been abandoned. The race started in front of a crowd of 185,000 at two o'clock, in order to finish before the start of the men's singles final in the French Open on Sunday afternoon. Brundle took the lead on the opening lap, harried by the Mercedes, with the Porsches showing no inclination to involve themselves in the opening skirmishes. But despite completing 10,000 kilometres of testing for the race, both Mercedes were out with engine problems within two hours of the start. 'You can't simulate Le Mans,' Bouchut said. For the winners of 1952 and 1989, it was an inglorious exit.

The Toyotas took command, holding first and second until the Brundle car, shared with Emmanuel Collard and Éric Hélary, lost time with braking problems. It was recovering places but still outside the top ten when a rain shower at dawn caught out the Englishman, who crashed at the Ford chicane. While the other Toyotas were delayed by gearbox problems, the fancied prototypes were also in trouble. Both BMWs disappeared with wheelbearing failures long before the sun went down, while one of the TWR-Porsches went out with engine failure and the other crashed during another rain shower.

Circumspection had paid off for Porsche's GT coupés. But, having held first and second places through the night, there were scares when Dirk Müller went off at Mulsanne corner in the early morning rain, requiring a new underbody,

and Allan McNish's overheating engine needed attention. Both were stationary for half an hour, enabling the Boutsen/Lees/Kelleners Toyota to regain its lead. There it stayed until ninety minutes from the finish, when Kelleners came to a halt at Arnage with no gears, unable to restart. McNish and his two French co-drivers, Laurent Aiello and Stéphane Ortelli, could cruise to the finish, crossing the line in formation with, and a lap ahead of, the sister car of Müller, Uwe Alzen and Bob Wollek.

Into third place behind the Porsches came the Nissan of Aguri Suzuki, Kazuyoshi Hoshino and Masahiko Kageyama. Fourth was the McLaren F1 co-driven by its owner, Steve O'Rourke. Having decided not to pay for the annual factory upgrades to his car, the manager of Pink Floyd splurged the money he had saved on a post-race party to celebrate the unexpectedly good result.

A year after none of his entries had finished the race, Don Panoz was making his presence felt. Now the owner of several US circuits, he had collaborated with Michel Cosson and the ACO on the launch of the Petit Le Mans event, a race for prototypes and GT cars at Road Atlanta whose success paved the way for the creation of Le Mans Series in America, Asia and Europe. On the team's second appearance at the Sarthe, one of their two Esperante GTR-1s finished seventh. But pre-qualifying had witnessed the debut of another Esperante equipped with a system of kinetic energy recovery to provide extra power, the first seen at Le Mans. There had been no time for serious testing, and the weight of the extra equipment, developed in Britain by Zytec, made it impossible for the driver, James Weaver, to set a time that would get him into the race. Energy recovery systems would play a big part at Le Mans, but not just yet.

The sight of a silver Mercedes flying through the air before crashing to earth evoked the unhappiest of memories. It happened before the 1999 race to the young Australian driver Mark Webber as he pulled out to overtake another car while approaching Indianapolis at high speed during the Thursday night practice session. The Mercedes landed on its side and bounced back onto its wheels. The same thing happened in daylight thirty-six hours later when Webber took the repaired car out for the warm-up session on the morning of the race, this time taking off just after cresting the hump near the end of the Mulsanne straight, once more while close to other cars. The car flew higher

this time before landing on its back and skidding down the track on its roof into the escape road. The marshals heaved it back onto its wheels and extricated a shaken Webber, but the car would not be on the grid that afternoon.

Built by AMG specifically for Le Mans, superficially the new CLR looked similar to the previous year's CLK. Lower and narrower, its shape was the result of extensive wind-tunnel research and more than 20,000 miles of testing in Germany, France and the US. But as Christophe Bouchut had noted twelve months earlier, no simulation can prepare you for the reality of Le Mans. Webber reported that on both occasions he had felt the car going light at the nose before leaving the ground. Surprisingly to many, the decision was taken to continue with the team's other two cars after their ride height had been lowered and extra winglets, intended for wet-weather running, had been added to increase downforce at the front end. For all their efforts, the incident for which the race would be remembered was yet to come.

The FIA ran a Sports Racing World Cup series in 1999, but Le Mans was not among its nine lacklustre rounds. Instead the Automobile Club de l'Ouest opted to concentrate on refining the competitive balance between the prototypes and the production-based GT cars, standardising the minimum weight of both classes at 900kg, limiting turbocharged engines to four litres and normally aspirated engines to six litres for prototypes and eight litres for GTs. Following the lead of Formula 1, such electronic driver aids such as traction control, automatic gearboxes and ABS braking were banned.

Porsche had retired from the fray to spend time developing a new prototype based around their V10 F1 engine, but a suitable replacement arrived in the shape of yet another German manufacturer with a long history. The device of four linked rings on the nose of an Audi went back to the 1930s and the creation of the Auto Union Grand Prix team by an association of four manufacturers: Horch, DKW, Wanderer and Audi itself, founded in Saxony during the First World War and merged with the other three in 1932. While all four companies continued to produce road cars under their individual names, it was as Auto Union that the single-seaters and record breakers – initially designed by Dr Ferdinand Porsche – battled against the rivals from Mercedes, their fellow recipients of lavish funding from Hitler's government.

After the Second World War, with the original factories in Chemnitz and Zwickau now in East Germany, the company's operations were relocated to

Ingolstadt, a picturesque town on the banks of Danube in Bavaria, previously chosen by the novelist Mary Shelley as the base for Dr Frankenstein's activities. Reconstituted with aid from the Marshall Plan, the US-funded scheme for economic recovery, the company was producing two-stroke, front-wheel drive DKWs when it was taken over by Daimler-Benz in 1959. Volkswagen bought the company from Daimler in 1966, intending to use the Ingolstadt plant to make its own Beetles. After much petitioning of an initially unwilling VW board, the first real post-war Audi – the 100 saloon – was launched in 1968, quickly finding a niche in the domestic and international markets for mid-sized family cars with decent performance and high-quality finish. Within two years, demand was so high that VW's own plant in Wolfsburg was being used to increase the production of Audis.

The four-ringed badge made its reappearance in competition in 1981, when the newly formed Audi Sport's four-wheel-drive Quattro began a career that would see it dominate international rallying, mostly in the hands of Hannu Mikkola, Michèle Mouton, Stig Blomqvist and Walter Röhrl. Soon Quattros were winning on the tracks in the US Trans Am series and the German touring car championship. For the company's first visit to Le Mans in 1999, Audi Sport would enter two examples of the new open-cockpit R8R prototype, using a turbocharged 3.6-litre V8 engine in a chassis designed by Wolfgang Appel, under the race management of Reinhold Joest. Two coupé versions, called the R8C, would be entered by Audi Sport UK and run by Richard Lloyd from a base in Norfolk.

BMW were back with a development of the V12 LMR spyder, built by Williams and run by Charly Lamm's Schnitzer team, with Gerhard Berger and Mario Theissen as the company's joint sports directors. The lead car, crewed by J. J. Lehto, Jörg Müller and Tom Kristensen, had won the 12 Hours of Sebring at the start of the year. Don Panoz chose to run in the same prototype class with two new open-cockpit creations with the driver set well back behind the front-mounted Ford V8 engines, almost like slingshot dragsters. The cars of these two teams made a crowd-pleasing contrast not just of sights but of six-litre sounds: the refined howl of the German V12 against the meaty roar of the American V8.

The favourites, however, were the Toyotas, now with a decade's worth of experience but only second places in 1992 and 1994 and a near-miss in 1998 to show for their considerable efforts. The GT-One looked the fastest car in the

field, their driver line-up was impressive and both the technical side, supervised by André de Cortanze, and the race management, under Ove Andersson, seemed ready to take the final step. It was an impression confirmed when Martin Brundle and Thierry Boutsen put their red and white coupés on the front row of the grid, sharing a battle for the lead in the early stages of the race with Bernd Schneider's Mercedes and Kristensen's BMW, enthralled 200,000 spectators on a hot and sunny afternoon.

The race was in its fifth hour and the daylight was beginning to fade when Peter Dumbreck took over the second Mercedes. This was the first appearance with the team for the 25-year-old Scot, who had won the previous year's Macau Grand Prix, the showpiece event of the Formula 3 season. Three laps into his stint, he had what seemed an insignificant brush with a Porsche 911 which he was lapping at the Ford chicane. Two laps later he was heading down the Mulsanne straight behind the second-placed Toyota, observing his team's instruction to all their drivers, issued after Webber's aerial adventures, not to follow too closely behind other cars.

He had caught up with the Toyota towards the end of the Mulsanne straight but expected the Japanese car to pull away under acceleration as they headed towards Indianapolis. They were between two of the right-hand kinks, travelling at around 180mph, headlamps blazing in the early dusk, when the front of the Mercedes started to lift. First the front wheels left the ground, then the whole car. Suddenly the car was somersaulting, soaring almost to treetop height as it went through two complete backflips and half twisted on a third, veering to the left in mid-air before flying over the barrier and crashing down among bushes on a flat patch of land 50 metres from the track, facing backwards but right side up. The TV cameras caught it, and there was relief when the young Scot could be seen emerging from the wreckage. The footage was shown on news broadcasts around the world.

Whether or not the car's aerodynamics had been affected by the brush with a Porsche two laps earlier, the fact remained that Mercedes had been given warning – twice within three days – of what seemed to be a latent instability. As with Webber's two crashes, the carbon-fibre and aluminium honeycomb structure proved strong enough to protect the driver and the car did not catch fire. But the team's decision to run the cars in the race had been exposed as irresponsible. It was their good luck that not only did Dumbreck emerge with

nothing more than shock and a few bruises, but the accident happened away from spectator areas and in a spot where marshals were not in the line of fire.

The historical parallel hardly needed to be stressed. Just as Alfred Neubauer had withdrawn his two remaining cars in 1955, so Norbert Haug now issued the order to pull in the other car, running strongly in fourth place, and close the garage doors. The CLRs were withdrawn from the final rounds of the American Le Mans Series and were never seen again in competition. Mercedes would not return to Le Mans.

Since there was no debris on the track from Dumbreck's crash, the yellow flags were not out for long. Already the ability of the two normally aspirated BMWs to run thirteen laps between fuel stops was giving them an advantage over the three turbocharged Toyotas, which required fill-ups every eleven or twelve laps. And the numerical odds were evened when Brundle ran over debris that punctured a tyre and put him into the wall and out of the race at one of the Mulsanne chicanes.

There was more bad news for Toyota at just after three in the morning when Boutsen, not wanting to waste seconds as he chased the leading BMW, squeezed past the Porsche of Michel Maisonneuve going into the chicane before the Dunlop bridge, only to be shunted hard by the 911 as they braked and pushed into the wall with the impact of a 40g deceleration. After a long career, it was the Belgian's last act as a racing driver. 'The car was destroyed and I was destroyed, too,' he would recall, long after his complete recovery. 'I survived only because I was extremely fit. The doctor came to me and said that from a thousand accidents like this – helicopter accidents, truck accidents, car accidents – a thousand die. Since then I see things a little bit differently. Things that seemed more important in the past are maybe not so important today.'

BMW's moment of adversity came at noon, with their cars running first and second. Lehto, in the car that had led for seventeen of the twenty hours since the start, hit the wall at the Porsche curves when the throttle stuck open, the race-ending impact heavy enough to give him a mild concussion. After inheriting the lead, Pierluigi Martini in the second car came under pressure from the sole surviving Toyota, in which Ukyo Katayama set a new lap record while closing on the BMW until only twenty seconds separated them with just under an hour to go. But then Katayama got tangled up with a backmarker at one of the Mulsanne chicanes, punctured a tyre on the kerb, and lost enough

time limping back to the pits to put him a lap behind when Martini took the chequered flag for a team whose association with Le Mans went back to 1937.

For Martini and Jo Winkelhock, this was a first victory in the 24 Hours. For the 37-year-old Dalmás, it was a fourth win to follow those in a Peugeot, a Dauer-Porsche and a McLaren, his record at Le Mans providing some compensation for a frustrating F1 career disrupted by a bout of Legionnaire's disease. When Berger had urged him to speed up in order to fend off the last Toyota, he refused, preferring to trust his own judgement of pace and reading of the race. In the words of Norbert Singer, his former technical chief at Porsche: 'Yannick doesn't see his role as just to drive the car and take orders.'

While the two British-built Audi coupés retired with mechanical problems, the pair of Joest-run open-cockpit R8Rs got the team off to a good start at Le Mans with a place on the podium. Frank Biela, Didier Theys and Emanuele Pirro had experienced not much more than the inconvenience of a broken exhaust pipe, finishing four laps behind the second-placed Toyota and fourteen laps ahead of the second R8R, which had needed two gearbox changes on the way to finishing fourth. In eighth place came Henri Pescarolo, now aged fifty-six, in a Courage-Porsche. After five wins in a record thirty-three appearances since his debut in 1966, this was the last time the bright green helmet of the man from Montfermeil, a suburb of Paris, would be seen in a cockpit at Le Mans.

CHAPTER 19

Silver rings (2000–04)

Vorsprung durch Technik: Progress through technology. The advertising man John Hegarty had seen that crisp phrase on an old poster stuck up on a wall during a visit to the Audi factory at Ingolstadt in the 1980s. Back in London, he would recycle it into one of the most effective slogans of its era. Presented in German to an English-speaking audience, it summarised the perceived virtues of the German car industry, whose products were now dominating the aspirational end of the road-car market. In motor racing, it reflected the thoroughness in preparation shown by the Audi Sport team, under the direction of the Viennese engineer Dr Wolfgang Ullrich and the race management of Reinhold Joest, as they looked forward to their second assault on Le Mans in 2000 with a completely redesigned version of the open-cockpit R8R, built in partnership with Dallara and Joest and now called the R8.

In March, two cars were sent to the 12 Hours of Sebring, the inaugural round of Don Panoz's American Le Mans Series. They finished first and second, ahead of the works BMWs. While the other competitors packed up and went home after the race, the Audi team hung around. The next day they went out and ran another twelve hours. In all they had completed around 700 laps over the harsh, bumpy surface of the old 3.7-mile Florida airfield circuit. Now they were ready for Le Mans, where the competitive landscape had changed.

They were entered in what was now the top prototype class, renamed LMP900, for cars with engines of up to four litres with turbocharging or six litres with normal aspiration and a minimum weight of 900kg (a second class,

LMP675, was for lighter prototypes with less powerful engines). But their erstwhile chief rivals were nowhere to be seen. Toyota's GT-Ones, so fast but so unlucky at Le Mans, were put away while Ove Andersson refocused the factory in Cologne on their Formula 1 project, leading to eight seasons of vast expenditure and no success. BMW had decided to concentrate on their F1 partnership, supplying engines to Williams in a project that would end in acrimony after six years, a handful of wins and much frustration. Mercedes, chastened by the aerial crashes in 1999, were supplying engines to the McLaren F1 team while becoming a dominant force in the German touring car series. Nissan and Mazda had also withdrawn.

Porsche's absence was more mysterious. Norbert Singer, their technical chief, had presided over the design of an open-cockpit prototype with a new normally aspirated 5.5-litre V10 engine. One example was built and tested privately by Bob Wollek and Allan McNish at Porsche's own track over two days in the spring of 1999, with excellent results. But the project would be cancelled, ostensibly because many of the company's top engineers were being diverted to the development of the Cayenne, the company's first sport utility vehicle, a priority that would give Porsche an increase in sales volume on a model with a high profit margin while also providing the platform for two more SUVs from the Volkswagen group of companies, Audi's Q7 and VW's Touareg.

The main challenge to the Audis came from across the Atlantic. In addition to Panoz, back with two red LMP-1 Roadsters, General Motors had commissioned four Cadillac Northstar prototypes from the workshop of Bob Riley and Mark Scott in Indiana, powered by turbocharged four-litre versions of GM's IndyCar engine. There were two cars with silver bodywork for the works team, and two finished in black to be run by the DAMS outfit from their headquarters at Le Mans. These were the first cars badged as Cadillacs to appear at Le Mans since Briggs Cunningham shipped *le Monstre* and a standard Coupe de Ville across the Atlantic in 1950.

In temperatures reaching thirty degrees, a crowd of 210,000 watched a race notably lacking in tension and incident. Jacky Ickx had been presented with the keys to the city of Le Mans before the start, and drove a lap in his 1969 Gulf Ford GT40 to salute the crowd: 'The same sound, the same sense of speed, the same smell...' But once he had flagged the grid away, nothing like the same drama. Audis were in the lead for 365 of the 368 laps, the other three

being led by the Panoz of David Brabham as pit stops were made during an early safety-car period following a fire that destroyed one of the DAMS Cadillacs on its fourth lap.

By two o'clock in the morning the R8 of Frank Biela, Tom Kristensen and Emanuele Pirro had settled into the lead, ahead of the sister cars of Laurent Aiello, Allan McNish and Stéphane Ortelli, who had won together for Porsche in 1998, and Michele Alboreto, Dindo Capello and Christian Abt. And there they stayed, in that exact order, for the next fourteen hours, cruising round to finish in line abreast at walking pace, first and third separated by three laps at the end, with a gap of another twenty-one laps to the fourth-placed car, a Pescarolo Racing Courage.

As Audi became the third team, after Bentley and Jaguar, to win the race at their second attempt, and the first since Peugeot in 1993 to fill the entire podium with its drivers, an extraordinary level of attention to detail was apparent in the R8's modular construction. Wolfgang Ullrich had spent time thinking about the two long stops to change the gearbox on the fourth-placed car a year earlier. Now, with the reality of a twenty-four-hour endurance race firmly in mind, the whole car had been designed for swift repairs: instead of fiddling about with individual components, entire sections could be speedily removed and swapped. The clearest illustration of the benefit was provided when two of the cars had their entire rear ends replaced during the race, each change – including suspension, gearbox and bodywork – taking no more than five minutes.

Whereas Audi's budget was now around £50 million, General Motors had allocated less than a third of that figure for the Cadillacs. No surprise, then, that the fastest of their cars was more than six seconds off the Audi pace. Nevertheless, one had held fourth place until a tyre blew in the morning, requiring lengthy repairs. In twenty-seventh and last place, limping to the finish on five of its six cylinders, came a Porsche GT3-R in which Gunnar Jeannette, an 18-year-old from Florida, became the youngest driver ever to finish at Le Mans.

After an injury ended his career as a ski racer, Bob Wollek rode a bicycle to keep fit. It had become his annual habit to put on cycling kit and ride the 700 kilometres from his home in Berstett, near Strasbourg, to Le Mans, carrying

nothing more than a credit card and a mobile phone. In March 2001, during Friday practice for the Sebring 12 Hours, he left the circuit on his bike to ride back to his hotel. On Highway 98, about thirteen miles from the track, he was being passed by a column of traffic when he was hit from behind by an RV driven by an 82-year-old man from the nearby town of Okeechobee. Caught on the head by the vehicle's extended rear-view mirror, Wollek was pronounced dead on arrival at a nearby hospital.

Bob Wollek was fifty-eight and had acquired the nickname 'Brilliant Bob' early in his career. The use of the adjective became an amusing fetish among journalists. And it was fully justified, even though he never made it into F1 or succeeded in winning the trophy he most coveted. It's not hard to imagine that he would have swapped all four of his wins in the 24 Hours of Daytona for just one at Le Mans, where he raced thirty times, finishing second on four occasions.

It was said that he planned to retire at the end of 2001 and that Porsche, for whom he had first raced in 1978, had offered him a role as an ambassador, although that didn't necessarily seem an obvious fit for a man who had been left out of their squad in the 1980s by a team manager who was looking for 'drivers who were good with the press, the public and sponsors'. He was from Alsace, where telling it like it is – or at least like you believe it to be – trumps superficial charm. But he was greatly respected; the flags of the competing nations flew at half-mast in the Sebring paddock and a minute's silence was observed before the race started on the day after his death. On the victory podium, the drivers of the first, second and third placed Audis showed their feelings by declining to spray champagne.

Two months before Wollek's death, another driver associated with Le Mans had died. Louis Krages, who raced as 'John Winter', was a winner in 1985 in Reinhold Joest's Porsche 956, although driving only a single stint on the Sunday morning. When his family's Bremen-based timber company, its fortunes in decline, was taken over by a competitor, he moved to Atlanta, Georgia, where he started a company manufacturing miniature wooden cars and trucks for use as corporate gifts. In 2001, aged fifty-one, divorced from his American second wife and apparently with his business in difficulties, he took his own life.

The last week of April brought a third reason to mourn. Michele Alboreto was out in an Audi on the 11-kilometre combined road and oval circuit at the

Lausitzring near Dresden in eastern Germany, engaged in high-speed aerodynamic tests on a car being prepared for Le Mans, when a rear tyre failed at around 180mph. The R8 left the track, somersaulted over a barrier and landed upside down, killing the 44-year-old driver instantly. When he joined the Ferrari F1 team in 1984, he had seemed likely to become Italy's first world champion since Alberto Ascari more than thirty years earlier. It was not to be, although he finished runner-up to Alain Prost in 1985. The victory at Le Mans in 1997 was among the peaks of his career. Reinhold Joest had recommended him to Dr Ullrich, who came to value his honest feedback and his continued appetite for the hard work of testing. Analysis revealed that a slow puncture had gone unnoticed by the driver while the car was on the road section of the circuit but caused the catastrophic failure on the high-speed oval. By the time the Audis returned to Le Mans, they were equipped with a real-time tyre pressure monitoring system.

Alboreto and Wollek, although very different characters, were mourned by those followers of motor sport capable of sensing something within the soul of a racer more precious than mere results or cold statistics. 'John Winter' had provided a reminder of the generations of well-heeled young men whose desire to race had inspired them to find ways to circumvent family disapproval. At Le Mans, Jacky Ickx, now the race director, paid tribute to all three at the drivers' briefing: a reminder, particularly for the first-timers, of the history of the event in which they were about to take part.

For the British, starved of success at Le Mans for a decade, the big news in 2001 was the return of the most resonant name of all: Bentley, five times winners between 1924 and 1930. Now part of the Volkswagen Group, the company was permitted to undertake a new Le Mans project. Two years earlier there had been a pre-echo of the scheme when a concept car called the Bentley Hunaudières was unveiled at the Geneva Motor Show: a full-on supercar featuring Volkswagen's eight-litre W16 engine and said to be good for 217mph. The project never got beyond that single car; a strategic decision at VW board level meant that its engine and platform would re-emerge two years later as the Bugatti Veyron. The new car for Le Mans, using Audi's turbocharged V8, would be built by the combined forces of Audi Sport UK and Racing Technology Norfolk, responsible for the R8C coupé in 1999 and

now merged into a single entity called Team Bentley, under the direction of Richard Lloyd. The chief designer would be Peter Elleray, a former aerospace engineer who had worked with Tyrrell and Arrows in Formula 1.

Far from being an Audi with Union Jacks slapped on the sides, the Bentley EXP Speed 8 was an original design with a coupé body and significant modifications to the drivetrain, including an increase in engine capacity to four litres. With a nod to history, the Bentleys would run on Dunlop tyres rather than the Audis' Michelins. British spectators among the 220,000 crowd were thrilled by the appearance of two handsome cars finished in the shade of dark green that had distinguished those driven by the Bentley Boys in the 1920s.

A vintage Bentley had turned up to bestow its blessings on its modern successors, and for the first time Le Mans hosted a full-blown race for post-war classic cars as an hors d'oeuvre to the main event. David Piper, now seventy, whose adventures at the Circuit de la Sarthe had cost him part of a leg during the filming of Steve McQueen's movie, won it in the Ferrari 275 LM he had owned since 1965, ahead of a field including Stirling Moss in a C-type Jaguar.

The forty-eight starters in the Grand Prix d'Endurance would be taking on a circuit with one significant modification. Following the incidents with the flying Mercedes two years earlier, the hump towards the end of the Mulsanne straight had been lowered by almost 8ft, requiring the removal of 7,000 cubic metres of earth. British fans were thrilled to see Martin Brundle's Bentley battling at the front with the two Joest-run works R8s, but after a downpour had cast a night-time gloom over the late afternoon, the dark green coupé retired with fire eating at the rear end after water found its way into the gearshift electrics and caused a short circuit.

As the conditions worsened and spinning cars could be seen at all points of the track, Ickx took the decision to neutralise the race by putting out the safety cars for an extended period. It would not be the only such interruption as Biela, Pirro and Kristiansen repeated their win of the previous year in their R8, after a race that was an ordeal for drivers and spectators alike. So confident was the winning team, and so slick their pit procedures, that Kristensen could even opt for a late precautionary gearbox change. At the end, after the last of four periods of safety-car neutralisation, there was a lap between the first and second cars from Ingolstadt, and another fourteen laps

separating the second R8 of Laurent Aiello, Dindo Capello and Christian Pescatori from Andy Wallace, Eric van de Poele and Butch Leitzinger in the second Bentley.

The end came as a relief to the twenty surviving cars, including the Porsche and the Corvette that had won the GT classes, approaching the finish line en bloc at walking pace after a race run in what Ickx said were the worst conditions he could remember. But, as usual, there were plenty of fans ready to celebrate not just the victors – with forests of Danish flags waving to salute Kristensen's third win and dark green Bentley banners acknowledging a promising return to the scene of former glories – but their own participation in the ritual.

The French love *bandes dessinées*, strip-cartoons covering the gamut of culture from low to high. Among the most famous and long-lived series is one devoted to the adventures of Michel Vaillant, a French racing driver brought to life in 1957 by the artist Jean Graton. First appearing in *Tintin* magazine, the strips became so popular that soon books were devoted solely to Vaillant; there would be more than eighty of them, with titles such as *Suspense à Indianapolis* and *Panique à Monaco*. Graton brought real cars and real drivers into the stories, alongside the fictional heroes and villains, while his hero spanned the decades with as little regard for the ageing process as Ian Fleming's James Bond.

On the cover of the first of the books, *Le Grand Défi*, in 1959, the firm-jawed Vaillant was seen sprinting across the track to his car at the start of the 24 Hours of Le Mans, a race he would win four times, and in 2002 a crew descended on the circuit to use the real race as the background to a Michel Vaillant feature film. The writer and producer was Luc Besson, famous for *The Big Blue* and *The Fifth Element*. Vaillant would be played by Sagamore Stévenin, with Diane Kruger as his co-driver and Lisa Barbuscia as the unscrupulous boss of a rival team. With the organisers' blessing, the DAMS team ran two cars, a Lola and a Panoz, filming sequences during the race from cameras mounted in their cockpits.

Back in real life, Hugues de Chaunac, the Oreca boss, was asked about Audi's new dominance as the 2002 race approached. 'They're an army,' he said. 'We're just a commando unit.' De Chaunac was running two new Dallara-Judds

in the top prototype class, but he was not alone in believing that the outcome of the seventieth running of the Grand Prix d'Endurance was foreordained. 'They're unbeatable,' Henri Pescarolo declared. Emanuele Pirro, one of the trio of Audi drivers who had triumphed in the previous two years, gave a succinct explanation of the team's methodology since arriving at Le Mans for the first time in 1999. In the first year, he said, the priority was to collect information, so the cars were overbuilt to ensure reliability at the expense of ultimate speed. In the second year, they were built for speed but also for ease of repair. 'We don't really think that to win Le Mans you must have no mechanical problems,' he said. 'We think that you should be able to win by having some mechanical problems and being able to fix them quickly.'

Dr Ullrich's cars had no difficulty in re-establishing their superiority on a circuit to which one big change had been made. Instead of plunging down from the Dunlop bridge to the tight Esses before Tertre Rouge, now the cars swept through a series of broad curves – left, right, left again – with generous gravel run-off areas before heading for the right-hander that would take them on to the Mulsanne straight. Sometimes this new feature would be referred to as the *Esses de la forêt*, although most of the trees that had bordered the old Esses were now gone.

The three works R8s, carrying race numbers 1, 2 and 3, finished in the first three positions for the second time in three years. Pirro, Tom Kristensen and Frank Biela took their third win in a row, with Pirro standing on his seat in celebration as he crossed the line. A key to their success, Kristensen pointed out, was that all three drivers were more or less the same size and liked the car's handling set up the same way. They were followed by Dindo Capello, Christian Pescatori and a new recruit, Johnny Herbert. Third place went to Marco Werner, Michael Krumm and Philipp Peter. In fourth, having recovered from a turbocharger failure, was the sole Bentley, an EXP Speed 8 benefiting from a year's development and again driven by the crew of Andy Wallace, Eric van de Poele and Butch Leizinger.

The film *Michel Vaillant* was released in French cinemas in 2003. After a pasting from the critics, and having cost \$26 million to make, it took \$7.2 million at the box office. Jean Graton's comic books, however, retained their popularity.

Since 1923 the priority of the Automobile Club de l'Ouest had been to provide thrilling sport while also contributing towards the advancement of technology. In a new millennium, however, it was increasingly obvious that the technology in question was playing a large part in the looming threat to human existence, that of climate change. And in deepest Kent, something was brewing. At the Sittingbourne workshops of Team Nasamax, a car was being prepared to run at Le Mans in 2003 on bio-ethanol fuel distilled from corn mash: 'non-toxic, water-soluble, biodegradable', as the team's spokesman said, producing only 60 per cent of the power of the equivalent amount of petrol, but with none of the environmental damage.

Governments in the US, Germany, Britain and elsewhere were already keen to encourage the growing of crops for fuel. So were farmers, who could switch between supplying producers of human food, animal feed or biofuel, according to which was offering the best price at a particular time. But some environmental campaigners were less sure of the benefits. In the *Guardian*, the campaigning journalist George Monbiot warned that 'setting up a competition for food between cars and people' represented 'a formula for environmental and humanitarian disaster'.¹

The prospect of new regulations to take effect in 2004 had persuaded Audi to give the R8s a rest and to refocus their efforts for a year on the Bentley programme, providing personnel from the Joest team and three of their drivers, Tom Kristensen, Dindo Capello and Johnny Herbert, to join Mark Blundell, David Brabham and Guy Smith. The new Speed 8 used very few components from its predecessors and had switched from Dunlop tyres to Michelin. Two hundred hours of testing in a wind tunnel, supervised by Peter Elleray, produced modifications that improved grip and driveability.

Fastest in qualifying, with Kristensen capturing pole position in the No. 7 car, the Bentleys were the obvious favourites. The sight of the two dark green machines accelerating away from the front row seemed like a perfect expression of the race's traditions: Capello and Herbert were doing what Barnato and Kidston, Birkin and Benjafield had done more than seventy years earlier. If it was a fine spectacle for a crowd swollen to a quarter of a million by expectant British visitors, there was no one to disrupt the Bentleys' progress by giving them a serious and sustained challenge. All they needed to do was keep to their target times and stay out of trouble.

In hot conditions, the Bentleys were not the most comfortable of cars for their drivers and Capello emerged from the cramped cockpit after one quadruple stint ready to admit that fifty-two laps had been 'a little bit too much'. But that was the only problem they experienced before Smith, a 28-year-old Yorkshireman, was rewarded for dedicating a year to testing and development work by being given the wheel of No. 7 for the final run to the flag. Two Bentleys and two privately entered Audis had made up the top four before darkness fell, and that was how they stayed throughout the remaining twenty hours, third place going to the US-entered Champion Racing R8 of J. J. Lehto, Emanuele Pirro and Stefan Johansson. A Panoz was the first finisher without an Audi engine, Gunnar Jeannette, now twenty-one, successfully fending off the Courage of Jean-Marc Gounon to finish fifth, Panoz's best-ever result at Le Mans.

On the Monday the winning No. 7 was paraded through the centre of Paris with Derek Bell, the only British driver with five wins at Le Mans to his credit, at the wheel, followed by two 'blower 4 ½s' from the 1920s age of the Bentley Boys, containing the crews of the winning cars. The sun shone as they crawled down Champs-Élysées through the regular daytime traffic, the winning No. 7's engine inching up to boiling point, and across the Seine to the Champs de Mars, where they posed against the Eiffel Tower. Later in the week they reassembled in London for a black-tie party at the Savoy Hotel with guests including Diana Barnato Walker, Woolf's daughter, who had delivered Spitfires and Hurricanes during the war and became the first woman pilot to break the sound barrier. As the drivers toasted their success next to the car in the Grand Ballroom, the mission was complete.

In the build-up to the 2004 race, headlines were stolen by the arrival of Colin McRae, a Scot who had become the first British driver to win the world rally championship. The son, brother and nephew of rally drivers, he had helped Subaru, with cars prepared and entered by the Prodrive organisation, to win the manufacturers' world title in 1995, 1996 and 1997. Now thirty-five, after a less satisfactory time with Ford, he was back with Prodrive in a different discipline, taking part in a rigorous testing programme at the Paul Ricard circuit in Provence in preparation for driving one of their two bright red Ferrari Maranellos in the GTS class. At Le Mans, one of the first things he

discovered during the night-time qualifying sessions was that the headlights on the Ferrari weren't as effective as those on his rally machines.

The prototypes were now divided into LMP1, open only to manufacturers, and the less powerful, heavier cars of LMP2. Audi returned with four works R8s entered under three different banners: two from Audi Sport UK, one from Team Goh of Japan and one from ADT Champion Racing of the US. Some of the Bentley drivers had been shuffled over and distributed around the Audis, with Kristensen – now a five-times winner – joining Dindo Capello and Seiji Ara in the Japanese entry.

The two UK Audis occupied the front row, and halfway around the first lap the works cars were already in the top four places, with Jamie Davies leading in one of the UK-entered R8s. Almost two hours had gone when the two R8s battling for second place, in the hands of Allan McNish and J. J. Lehto, simultaneously encountered a patch of oil dropped at the high-speed entry to the Porsche curves and slid hard and helplessly into the barriers in unison. After being towed out of the gravel trap, the drivers managed to get their half-wrecked cars back to the pits, where McNish collapsed and was taken to the medical centre for observation. Extensive repairs cost his car twenty-two laps, putting it down at the tail of the field, while Lehto's Champion Racing car was sent out again with Marco Werner at the wheel, having dropped to forty-first.

Even then the US car was able to claw its way back towards the top of the leaderboard, Werner driving a quadruple stint to get back into the top ten before Lehto took over and set the new fastest lap of the race. The car of Davies, Johnny Herbert and Guy Smith led through the night until seven o'clock in the morning, when the rear suspension collapsed. Not a catastrophe, given Audi's record of building cars with easily replaceable major components, but enough to yield the lead to Kristensen, Capello and Ara, who proved reluctant to hand it back. A flash fire in the leading Audi as it was leaving the pits late on, although quickly extinguished, gave the second-placed car encouragement as Herbert pressed on and unlapped himself. But there were still forty-one seconds between the cars as Ara crossed the line to present his watching teammate Kristensen with an unprecedented fifth win in a row and six altogether, putting the Dane level with Jacky Ickx.

After blowing up a year earlier, Nasamax's bio-fuelled prototype finished seventeenth on its second appearance. A Lola with a five-litre Caterpillar

turbo V8 engine, the first diesel car seen at Le Mans since 1951, lasted only thirty-five laps.

Colin McRae finished ninth overall and third in the GTS category, behind two Corvettes, sharing the Prodrive Ferrari with Rickard Rydell and Darren Turner. He had spun into the gravel during the evening while making room for a faster prototype to pass and ruined the clutch getting the car going again, requiring a replacement, and at midday he went straight on at one of the Mulsanne chicanes. 'It was,' he said afterwards, 'a hell of a lot harder than I thought it would be.'

¹ On the twentieth anniversary of the Nasamax car's appearance, George Monbiot could again be found inveighing against the diversion of crops away from feeding the victims of a global food crisis, quoting a claim that if biofuel production were to cease, the saved crops could feed 1.9 billion human beings.

CHAPTER 20

Droning diesels (2005–09)

In the week of the 2005 race, the ACO presented Henri Pescarolo with their Spirit of Le Mans award, forty-nine years after his debut as a driver. Some months earlier he had been given another present: a new set of rules with which the organisers hoped to improve the competitiveness of the field. Now the older LMP1 prototypes, principally meaning the Audi R8s, winners of four of the five preceding races, would have their minimum weight limit raised and the power of their engines reduced. Pescarolo, like others building new prototypes, would be free of these handicaps and might once again be in with a chance of victory.

In his workshops at the circuit's Technoparc, set up by the ACO and the Sarthe's economic expansion board as a home for a variety of racing and allied projects, he prepared his two cars. Based on Yves Courage's prototypes but named the Pescarolo-Judd C60, they were painted French blue with splashes of the vivid green that had identified his helmet in his driving days. His six drivers, all French, included Sébastien Loeb, the 31-year-old reigning world rally champion, as new to this branch of the sport as Colin McRae had been a year earlier. Loeb had little time to get to know the car or the circuit; most of his preparation, he said, was done on the video game *Gran Turismo 4* while travelling on a private jet between his rallying commitments.

A pair of works-supported Audi R8s came from Champion Racing, run by Dave Maraj, a car dealer in Pompano Beach, Florida, and another had been acquired by Hugues de Chaunac for his Oreca team. The Champion squad consisted of drivers who had already won or placed at Le Mans; they were not

best pleased to discover that the R8 now had a deficit of almost 20mph in straight-line speed on the Pescarolos. 'We are still optimistic,' said Frank Biela, already three times a winner, but his expression indicated the frustration a racing driver feels when he knows the rules have been tweaked, and not in his favour.

To mark the fiftieth anniversary of the catastrophe of 1955, a memorial plaque was unveiled at the spot where eighty-four people had lost their lives. Four manufacturers whose cars took part in that race were present again in 2005: Ferrari and Porsche with their GT entries, MG with a Lola-based LMP2 prototype, and Aston Martin, now owned by Ford, returning with a proper works team for the first time since 1964. Their recent road cars had been a success, the six-cylinder DB7 followed in 2003 by the six-litre V12 DB9, and by 2005 the company had opened a new factory on the site of an old RAF base at Gaydon in Warwickshire. Their new racing project, however, was based a dozen miles away. The DBR9s for Le Mans would be built at the Prodrive factory, founded by Dave Richards, a Welshman who had been managing teams and winning championships since his mid-twenties.

After two years spent running Ferraris at Le Mans, Richards had a good idea of what was necessary. The suspension and brakes on the Aston Martin were beefed up, a six-speed racing gearbox was added, and attention was paid to the aerodynamics, with carbon-fibre panels replacing the aluminium bodywork. Enthusiasts were delighted to see the cars painted in the shade of green familiar from the David Brown era. They looked like Astons and soon they were showing that they could perform as Astons did in the days when they were driven at Le Mans by Stirling Moss and Jim Clark. The drivers of the new works Corvette C6.Rs knew they would have a fight on their hands in the GT1 class when a Prodrive DBR9 beat them first time out at Sebring.

Many in the crowd of 230,000 had been encouraged by the performance of the Pescarolo team earlier in the week, Jean-Christophe Boullion and Soheil Ayari putting their two cars on the front row. Once the race had started they pulled out a lead over the Audis, which could only plug on as the French cars disappeared into the distance. The Astons were similarly impressive, dominating the Corvettes in the early stages. But Le Mans is rarely won before darkness falls, and this was a year in which extreme heat made the track surface slippery, the gravel spread by numerous off-piste excursions adding to the hazards. Gearbox problems delayed Boullion before Ayari tangled with

one of the new Panoz Esperante GTs at the Mulsanne corner; he and his co-drivers spent the night trying to recover places before, with Loeb at the wheel, a puncture put their car into a wall and out of the race.

Tom Kristensen's Champion Racing R8 took a lead it would keep, although its sister car lost several laps while being repaired after crashes with first Emanuele Pirro and then Allan McNish at the wheel. From midnight on, Boullion, Emmanuel Collard and Érik Comas took turns at driving their Pescarolo as hard as they could. Six or seven seconds a lap quicker than the Audi, gradually they made up ground, unlapping themselves for a first and then a second time, with Kristensen and his co-drivers, J. J. Lehto and Marco Werner, helpless to respond. Finally on the same lap with two hours to go, the French team glimpsed victory. But when the car began to show signs of overheating, Pescarolo was forced to tell his drivers to ease back and secure their second place behind one Audi and ahead of the other.

Like the Audis, the Corvettes had shown their greater experience and resilience, outlasting the Astons to finish fifth and sixth overall, with Oliver Gavin, Olivier Beretta and Jan Magnussen in the class-winning car. One DBR9 had been plagued by damage from punctures; the other was stranded with a dry petrol tank in the later stages, unable to refuel and complete a final lap. One advantage the Corvette drivers enjoyed was conferred by their air-conditioned helmets; the temperatures at Le Mans in June had been gradually rising, and drivers were feeling severe discomfort in the cockpits of the coupés. This year, with ambient temperatures above thirty-five degrees, the conditions had provided a serious test.

Kristensen's seventh win took him clear of Jacky Ickx. After the Belgian's twenty-three-year reign, there was a new Monsieur Le Mans. As the Dane made his victory speech, accepting the applause for his record, he acknowledged the part played by a remarkable racing car. The successes earned during the eight-year career of the R8 were a tribute not just to the philosophy of progress through technology but to strategic thinking and significant investment. After winning five of the seven races in which it had taken part at Le Mans, the car would now be retired. Kristensen turned to Dr Wolfgang Ullrich on the podium and offered to drive it himself back to the Audi museum at Ingolstadt, where it would occupy a place of honour.

The new sound at Le Mans in 2006 peaked at eighty-five decibels. Had there been any lace curtains in the vicinity, they would barely have fluttered. Those disappointed by this sotto voce version of a racing engine could blame Rudolf Diesel. Born in 1858, the son of a Bavarian bookbinder who had moved to Paris, Rudolf was sent to school in London and college in Augsburg, studying engineering before joining a firm in Berlin, where he began patenting his ideas. An experimental steam engine had exploded and almost killed him before, in 1893, he published a treatise on his latest theory, an engine that would achieve ignition by compressing air within the cylinder to a high temperature. Four years later the first example was successfully tested.

In September 1913 he boarded the SS *Dresden* at Antwerp, heading for business meetings in London. After dinner he retired to his cabin, leaving word to be woken at 6.15 a.m., but by morning he had vanished. His bed had not been slept in and his hat and neatly folded overcoat were found beneath the afterdeck railing. Ten days later a Dutch pilot boat found his body. He had left his wife 20,000 marks in cash but his bank accounts were almost empty. One of his meetings in London would have been with the Royal Navy, after he had refused the German naval authorities the exclusive rights to his engine. That was one of the details clouding the investigation into his death, for which no definitive explanation was ever found.

Diesel engines became something that powered trucks, locomotives and submarines. Used in cars, they were reliable and cheaper to run, although it was easy to dislike the clattering noise they made when starting up. But sometime in the 1990s, a motorist might have stepped into a Volkswagen Golf with a turbocharged 1.9-litre diesel engine and discovered that it was impressively quick and responsive. Attitudes to diesel engines had begun to change, and by the time Audi announced their return as a full works team with the R10 TDI in December 2005, half the vehicles they sold worldwide were diesel-powered. But first the company had to persuade the ACO, whose rules stipulated the use of a single type of fuel for all cars, that allowing diesels to compete was a worthwhile step. That accomplished, the launch of the new car was held in Paris, Rudolf Diesel's birthplace, and the team gave a warning of their potential with an early-season win at Sebring before again staying on in Florida to continue an 18,000-mile test programme.

At Le Mans the principal challengers to their two cars would once more be the pair of Pescarolo-Judds, which had enjoyed a clear advantage in speed a

year earlier, only to be let down by mechanical problems and misfortunes. Now, after a further year's development, they outperformed the German cars during the test day at the beginning of June. But reality dawned during the second day of practice in race week, when the Audis suddenly revealed the true speed of their R10 diesels, showing themselves to be two seconds a lap faster than their French rivals. 'We missed our chance last year when we had the fastest car,' Pescarolo said, knowing that while anything could happen at Le Mans, the odds had suddenly changed.

The start was delayed until five o'clock in order to avoid clashes with football's World Cup in Germany, where France's heroes were on the path to the final. This gave more time for celebrations of the ACO's centenary, while spectators could enjoy the expanded Village, extended and landscaped at a cost of around £15 million. Two by two the Audis and Pescarolos set off, and two by two they continued, the strangely subdued sound of the 5.5-litre V12 turbo diesels heading the wail of the five-litre Judd V10s. 'Diesels are something that's going to be in everybody's future,' the Speed Channel commentator told viewers of the live broadcast, pointing out that 60 per cent of all vehicles in Europe were now powered by Rudolf Diesel's invention.

All went smoothly for the Audis until the third hour, when Capello took over from McNish and spun at the Ford chicane while trying to lap a Lola. The engine started cutting out, and the car fell out of the top ten. After four hours it was back to fourth and at half-distance it was third, behind Biela, Werner and Pirro in the sister R10 and the Pescarolo of Loeb, Éric Hélary and Franck Montagny. Little interrupted the leading Audi's progress, although when Marco Werner tried to leave the pit lane in the early morning he was stopped by a marshal and told that one of his headlights – now to be kept on throughout the twenty-four hours – was not working. The mechanics had to run to the car and push it back to the pit before, in a typical piece of Audi planning, replacing the whole nose section in a few moments rather than fiddle about changing a light bulb. It would be a fourth win for Pirro, who was given the final stint, and Biela, and a second for Werner. Again a Pescarolo was on the podium as the filling in an Audi sandwich.

The principal race within a race, though, was once more between the Corvettes and the Aston Martins in the GT1 class. The British cars were given the numbers 007 and 009 in recognition of the release later in the year of *Casino Royale*, the first James Bond film to feature Daniel Craig. Both works

DBR9s had set faster times in practice than both Corvette Racing's yellow C6.Rs, and the prospects looked good until 007 went over a high kerb and needed a lengthy repair to a broken oil pipe, while 009 was delayed by a broken clutch. The Corvette of Oliver Gavin, Olivier Beretta and Jan Magnussen would win the class, finishing fourth in the overall classification, with 007 five laps behind.

Ron Fellows, one of the works Corvette drivers, remarked of the Astons: 'At some point, they're going to get it right.' But not, alas, in time to boost the Bond movie. Which, given that it took \$600 million – four times its production budget – at the box office, probably didn't cause undue heartache. And at least Prodrive's Astons made it to the finish, unlike Daniel Craig's car, which tumbled to destruction in the race to save Vesper Lynd from the clutches of Le Chiffre.

A week after his election as France's new prime minister, François Fillon toured the pit lane before the start of the seventy-fifth edition of the Grand Prix d'Endurance. In 2007 the French challenge was not being left to the locally built cars of Henri Pescarolo and Yves Courage alone. More than a decade after their victories of 1991 and 1992, Peugeot were back, bringing their own turbo diesel, the 908 HDi FAP, to challenge Audi's R10. After conquering Le Mans in the early 1990s, the Peugeot Sport team had spent several frustrating years as an engine supplier in F1 before winning three world rally championships and then returning to the race that offered the single greatest promotional benefit.

Built under the leadership of the company's new sporting director, Michel Barge, the 908 HDi coupé was conceived by Paolo Catone, a freelance designer from Luxembourg, to take advantage of new rules for the prototype class offering larger air restrictors, and thus more power, for closed-cockpit cars. The car's 5.5-litre twin-turbo V12 engine was said to develop 10 per cent more power than its Audi equivalent. The FAP suffix stood for *filtre à particules*, or particulate filter, a device fitted to counteract what was widely seen as the major drawback of diesel engines: the emission of pollutants.

In the aftermath of several years of extreme heat at Le Mans, resulting in images of drivers with their bare feet in cold water and ice bags on their heads, the ACO imposed rules to monitor and restrict cockpit temperatures.

For the benefit of the spectators' hearing, a limit was also placed on engine noise, to be measured at 15 metres from the edge of the track and not to exceed 113 decibels. That would certainly have resulted in fines for the eight-cylinder Mercedes in the 1950s and the Matra V12 in the 1970s, but the arrival of turbochargers and diesels had already quietened things down, and in 2006 the droning turbo-diesel Audi had seemed practically silent, registering less than 100 decibels. 'You could drive the R10 through the streets of London,' Ulrich Baretzky, Audi Sport's engine man, said, 'and no one would turn his head because of the noise.'

Two Peugeots confronted three Audis, and the French team's confidence was given a boost when Stéphane Sarrazin set the fastest time in practice, the quintet of diesels occupying the first five places on the grid. Peugeot had opted not for the pure white bodywork of their winning cars in the 1990s or even the French blue of their Darl'Mats from the late 1930s but a colour scheme of silver with red accents very close to that used by the Audis.

Nominated to take the opening stint in the pole-position car, Sébastien Bourdais – a native of Le Mans – tripped up at the first corner, going too fast into the Dunlop chicane and letting Dindo Capello's No. 1 Audi into the lead. Audi's own initial setback came after only three laps when, in light drizzle, the young German driver Mike Rockenfeller lost control entering Tertre Rouge and destroyed the back of the No. 3 R10. That evened the numerical balance, but both Peugeots needed attention in the garages during the evening, the pole position car requiring a new rear axle assembly, leaving the Audis holding the first two places, with Kristensen, Capello and McNish in the lead.

The Prodrive Aston Martins were again squashing the Corvette opposition, just as they had appeared to be doing for the previous two years until trouble intervened. Pratt & Miller, builders of the Corvettes, had devised something called variable displacement, cutting half the engine's eight cylinders during safety-car periods and thus saving fuel, but it had been discarded after failing to work properly in practice. They also had rearward-facing cameras feeding small dashboard screens to supplement the door mirrors, but what really mattered were the DBR9s, which were up ahead.

Driving one of the privately entered Corvettes was one David Smet, who had made his debut at Le Mans in 2003 as David Hallyday; the singer-songwriter son of Johnny Hallyday and Sylvie Vartan had abandoned his famous father's stage surname to race under the one they had both been born

with. Luc Alphand, a French hero from his days as the world downhill ski champion, had entered the race for the first time in a Porsche in 2002; now he was running his own team of Corvettes, but not even launching himself down the Hahnenkamm at Kitzbühel could have prepared him for the moment when his brake pedal went to the floor on the Mulsanne straight in the middle of the night, sending him into a series of spins in which, as it was happening, he fully expected the car to be destroyed. 'Very, very lucky,' he concluded after he and his teammates had been able to finish the race.

Soon after dawn, Capello refuelled and left the pits in the leading Audi, the No. 2 car. A handful of laps later the left rear wheel came off as Capello started to brake for Indianapolis, the car slamming into the barrier, causing enough damage to end its race. Without being certain of the cause, Dr Ulrich called in the only surviving car, now the clear leader, for a precautionary change of wheel nuts. Behind Frank Biela, Emanuele Pirro and Marco Werner in the No. 1 Audi came the two Peugeots, the first of them driven by Jacques Villeneuve, the French-Canadian F1 world champion of 1997, in his familiar rainbow-striped helmet and baggy race suit. Rain had started to fall by the time he retired with engine failure. The car of Sarrazin, Bourdais and Pedro Lamy, now in second place, had already been experiencing problems before the rain grew so torrential in the closing stages that the race director sent out the safety car to control the pace. The Peugeot was brought into the garage to dry its electrical systems; as the weather improved and the safety car pulled off, Bourdais went out to loiter just before the finish line and wait for three o'clock.

Werner was put into the No. 1 Audi for the final stint to complete 369 laps in the twenty-four hours, the team's seventh win at Le Mans. For the second year in a row the presence of a French car on pole position had not led to victory, but Peugeot celebrated second place on their return, ten laps behind the winner in a race of attrition, almost as joyously as if they had won, while third place, one lap further back, for Collard, Boullion and Romain Dumas in Henri Pescarolo's prototype was equal cause for satisfaction, given the disparity in resources between the works teams and the *garagiste*.

Fifth was the GT1-winning Aston Martin of David Brabham, Darren Turner and Rickard Rydell, with the first of the Corvettes a lap behind. Three months earlier, Prodrive's Dave Richards had led the consortium that bought Aston Martin, ending Ford's twenty years of ownership. The bid of £475

million was largely financed by an American investment banker and two Kuwaiti companies, and soon after the success at Le Mans, with Richards installed as chairman, the new company announced ambitious plans that included the opening of dealerships in Beijing and Shanghai. Victory over the formidable Chevrolets may have come too late for the launch of *Casino Royale*, but it was the climax of a three-year Le Mans campaign that demonstrated the power of the race to help create, burnish and then rebuild a reputation.

As part of the centenary celebrations of Wilbur Wright's pioneering flight at Le Mans, the command to start the 2008 race would be given remotely by two Russian astronauts, Commander Sergei Volkov and Flight Engineer Oleg Kolonenko, from the International Space Station, in orbit 260 miles above the earth. But Le Mans, like many cities around the world, had also rediscovered the virtues of a much older method of transportation. Visitors to the 24 Hours now found that they could leave the railway station and jump straight onto an electric tram service whose bright orange carriages made their way through Pontlieue and uphill along the road used on the original circuit before ducking through a tunnel under Tertre Rouge to emerge in a pleasant wooded section close to the circuit's southern entrance gate. On one weekend in June each year, the trams would run all night.

The ACO had made further efforts to balance the performance of the diesel and petrol-engined prototypes. All were also permitted to use fuel blends including 10 per cent of ethanol or biodiesel, which Audi announced they were taking up. Peugeot had returned with three 908s to pit against Audi's trio of R10s, and it soon became clear that, for all the ACO's efforts to close the gap, the two diesel-powered teams were in a league of their own.

The Peugeots may have had the edge on outright speed, but the Audis had the experience of winning Le Mans as well as the ability to make a tankful of fuel last a lap longer than the French cars. So when the Peugeots took an immediate lead, Dr Ullrich and the rest of the German team's management were not dismayed. 'Speed alone is probably not going to be enough,' he said. 'Experience is absolutely everything.' And in the third hour, as the teams went through their pit-stop sequences and the Peugeot shared by Sarrazin, Lamy and Alexander Wurz stopped for gearbox repairs, Dr Ullrich was able to watch the Audi of Kristensen, Capello and McNish take the lead.

Peugeot's hopes rose again when the car of Nicolas Minassian, Marc Gené and Jacques Villeneuve went to the front during the evening and stayed there until the arrival of rain a couple of hours before dawn helped Kristensen to regain the lead. The rain came and went throughout the final hours, a big crash for one of the Courages at the Dunlop chicane bringing out the safety car for forty minutes before Lamy's Peugeot went head-on into the barrier at Arnage. Even Kristensen misjudged a passing move on a Zytek as he swooped past the pits, but the spin was not enough to hinder his progress towards the chequered flag for his eighth win, Capello's third and a second for McNish, coming ten years after the Scot's first. Audis were first, fourth and sixth, with Peugeots second, third and fifth: an impressive demonstration of reliability from both teams, and enough to convince Peugeot not to give up the fight.

The Aston Martins – now with Gulf's powder blue and marigold colours in place of the traditional green – and Corvettes resumed their battle from the start and sustained it to the finish: the DBR9 of David Brabham, Darren Turner and Antonio Garcia and the Corvette of Johnny O'Connell, Jan Magnussen and Ron Fellows finished on the same lap, the Aston team repeating their triumph of 2008.

The worldwide financial crisis caused by an out-of-control banking sector persuaded the ACO to cancel the test days at the start of 2009, which appeared to be bad news for Audi. The R10 had taken the last two of its three consecutive Le Mans victories through preparation and race craft rather than sheer speed; its replacement, the R15 TDI, featured a lighter V10 engine to replace the V12 and radically different aerodynamics. The new car was good enough for Kristensen, McNish and Capello to beat the Peugeots at Sebring, but what worked well at the bumpy, high-downforce Florida track was not necessarily suited to smooth, low-downforce Le Mans, at least without a chance of proper testing.

Peugeot, by contrast, had completed six full-length tests with the latest version of the 908 at the Paul Ricard circuit in Provence, in conditions much closer to those expected at Le Mans. Under a new sports director, Olivier Quesnel, they had boosted their driving strength with the addition of David Brabham, now in his sixteenth Le Mans after helping Aston Martin to two consecutive GT1 victories. To the three works cars – all with a greater amount

of French blue in the grey and white paint scheme – they could add a fourth 908, entered by Henri Pescarolo alongside his own Judd-engined prototype. Support for Audi's three R15s came from two R10s acquired by a former dentist who had been born Călin Colesnic in Romania. Colin Kolles, as he now called himself, had managed the Midland F1 team for a couple of years in what was widely thought to be a rather idiosyncratic manner.

The Prodrive-run Aston Martin team had left the GT class to make the jump to LMP1, putting the DBR9's V12 engines in a pair of Lola chassis. The team referred to the new Gulf-sponsored prototype as the Aston Martin DBR1-2, an optimistic reference to the 1959 winning machine. Three were entered, two by the factory and one by Aston Martin Eastern Europe, a Czech team otherwise known as Charouz Racing.

As soon as Peugeot Sport's engineers saw the very different aerodynamic treatment of Audi's new car at Sebring in March, the team lodged a formal protest, claiming that flaps under the R15's nose and shrouds around its front suspension contravened the regulations on moveable aerodynamic devices. The stewards rejected the complaint, allowing the Audis to race, but Olivier Quesnel announced Peugeot's decision to appeal against the verdict. They were told that it would be heard after the event. As it turned out, that was the least of Audi's problems. Despite its Sebring victory, their new car turned out to be slower than expected at Le Mans, with worse handling and various niggling problems that might have seemed normal in a new car from almost anywhere other than Ingolstadt.

In honour of the sixtieth anniversary of Ferrari's first win, the starting signal was given by Luca di Montezemolo, the Italian company's president, who had masterminded a revival on and off the track after the founder's death in 1988. Although no Ferrari was about to challenge for the overall victory, there were ten of the company's mid-engined F430 coupés to do battle in the GT2 class. But most eyes in the 234,000 crowd were on the Peugeots, which claimed an early monopoly of the top three places while Alexandre Prémat was taking one of the Audis into the gravel at Indianapolis, a sign of travails to come. A self-inflicted wound came Peugeot's way early on when Nicolas Minassian, in the second placed car, was waved out of the pit just as the Pescarolo team's 908 was coming in. The two cars touched and Minassian had to complete a lap with a punctured left rear tyre, shedding rubber and pieces

of bodywork as he limped back for repairs that put the car down to fifty-first place.

The No. 1 Audi of Kristensen, Capello and McNish was stalking the leading Peugeots, slipping past them to hold a short-lived lead during the early hours, thanks to its greater fuel economy. The Pescarolo-entered Peugeot would disappear before dawn when Benoît Tréluyer crashed heavily at the curve after the Dunlop bridge, now known as La Chapelle, bringing the safety car into action for forty-five minutes while he was extracted unharmed from the wreckage. But the 908 of David Brabham, Marc Gené and Alex Wurz marched on through the dawn and into the sunlight, a lap ahead of the sister car of Sarrazin, Montagny and Bourdais at the finish and six laps ahead of the No. 1 Audi. In fourth, and the best placed petrol-engined car, was the Aston Martin of the East Europe team, driven by Jan Charouz, Tomáš Enge and Stefan Mücke.

The GT1 class went to the Corvette of Johnny O'Connell, Jan Magnussen and Antonio García, marking the last year of Pratt & Miller's decade-long contract with General Motors, during which they had won the category six times. The GT2-winning Ferrari F430 of the Risi Competizione team, driven by Mika Salo, Jaime Mello and Pierre Kaffer, had beaten rivals including a Porsche driven by the Hollywood actor Patrick Dempsey, who was beginning a long relationship with Le Mans, and an Aston Martin Vantage entered by Lord Drayson, an engineer, businessman, politician and campaigner for green energy serving as the UK's Minister for Science and Innovation in the Labour government of Gordon Brown.

Marc Gené, a winner for the first time, brought the Peugeot to the finish line before celebrating with Wurz, now a double winner, and Brabham, also enjoying a first victory to match his older brother Geoff's win for the same marque in 1993. A euphoric Olivier Quesnel announced that Peugeot had decided not to pursue their protest against the Audis. Victory would be enough.

CHAPTER 21

Prince of Denmark (2010-14)

In preparation for the challenge of Le Mans, no marginal gain was ever too small to be ignored. For his debut at the Circuit de la Sarthe in 2010, Nigel Mansell shaved off his famous moustache. Now the former F1 world champion was as clean-shaven as the two fresh-faced sons, 25-year-old Leo and 22-year-old Greg, with whom he was teaming up in a Ginetta-Zytek prototype painted in the patriotic red, white and blue of the old lion's helmet. The first combination of father and two sons to enter the race together, they were following the example of the Rosiers, *père et fils*, who had won in 1950.

Everything about Le Mans was unfamiliar to Mansell. For Audi's Dr Wolfgang Ullrich, on the other hand, the novelty was the need to spend a year absorbing the feeling of failure. As he pointed out, losing was 'a little bit of a new experience' for Audi. They responded to defeat at Peugeot's hands by producing an updated car, the R15 TDI Plus, and a squad of drivers including several young newcomers. Peugeot, too, added some new names – among them the English driver Anthony Davidson, whose time in F1 had just ended, and Simon Pagenaud, a Frenchman who had built his career in the US – and gave evidence in qualifying that little had changed in the balance of power. All four Peugeots – three from the works team and one from Oreca – were faster than all three works Audis, with the Aston Martin DBR1-2s the quickest of the non-diesels.

There were still plenty of barely clad sponsors' representatives to keep the photographers occupied while the cars assembled the starting grid, but the newly crowned Miss France, 22-year-old Malika Ménard from Normandy, was wearing a blazer and jeans as she posed with the Peugeot drivers. Two months later, making the top fifteen at the finals of the Miss Universe contest in Las Vegas, she would be one of several contestants refusing to take part in a topless photo-shoot, pointing out that it was forbidden in the protocols governing her reign as France's national beauty queen.

As the fifty-five cars came past the pits at the end of the first lap, they looked more like a military parade in Red Square than a race: four Peugeots, then a small gap, then three Audis, then another gap before the remaining fifty starters – an indication that further measures taken to diminish the pace of the diesels by reducing their air restrictors and making them carry extra weight had not restored anything like parity to the non-diesels.

The opening laps were an unhappy experience for British icons. The first Jaguar to appear at Le Mans for fifteen years, an XKR built with factory approval by RSR Racing in Lansing, Michigan, retired on the fourth lap with electrical problems. In 2008 Jaguar Cars, along with Land Rover, had been sold by Ford to the Indian car maker Tata Motors for \$2.3 billion. Industry observers estimated that over eighteen years Ford had sunk between \$35 billion and \$50 billion into a company that, for all its glorious history, became known within the corporate headquarters as 'the English patient'. The XKR's display did nothing to restore the marque's former lustre. And just as the Jaguar was expiring, Nigel Mansell showed that he had preserved his old penchant for drama when his LMP1 Ginetta snapped out of line, thanks to a slow puncture in a rear tyre, and smashed into the barrier at high speed between the Mulsanne corner and Indianapolis. Mansell was taken to hospital and treated for concussion; later he found that the blow to his head had damaged his memory and affected his moods, something he would alleviate not by the conventional forms of therapy but by learning a new skill: magic tricks.

His crash sent the safety cars out for half an hour, inadvertently separating the leading bloc of Peugeots even further from the pursuing Audis, provoking a certain amount of grumbling in the German pits. They perked up after two and a half hours when Lamy's leading Peugeot slowed on the Mulsanne straight and retired with rear suspension failure. Now it was three Peugeots

followed by three Audis. But then Kristensen was squeezed off the track at the Porsche curves by the latest BMW 'art car', an M3 decorated in multicoloured stripes by Jeff Koons. The Audi spun into the barrier, losing three laps while the damage was repaired. 'I tried to avoid that beautiful car,' Kristensen explained with heavy irony.

The No. 1 Peugeot was delayed first by the need to replace the starter motor and then by a spin while Anthony Davidson was lapping a Ferrari near the Dunlop bridge. The No. 2 car held the lead through the night, running at a conservative pace until just after dawn, when flames began flickering from a broken turbocharger and Franck Montagny coasted to a halt at a marshals' post, where fire extinguishers were called into action. Its race was over, handing the lead to the Audi Sport North America R15 of Mike Rockenfeller, Timo Bernhard and Romain Dumas, ahead of the similar Joest-run car of Benoît Tréluyer, André Lotterer and Marcel Fässler. The surviving works Peugeot was third, chased by the Audi shared by Kristensen, Allan McNish and Dindo Capello.

Wurz was back in the Peugeot when its engine failed in the last hour, and a disaster for the French team was completed when the engine of the Oreca entry also gave up in the closing stages. 'It's the magic of Le Mans – sometimes it's really painful,' Olivier Panis, one of its drivers, said. When Dr Ullrich saw one of his engine men smiling as the last Peugeot succumbed, he scolded him. 'It was not how we wanted to win,' he said. 'I told him, "Think about how it would feel if it happened to you."' To compound the pain for the Peugeot Sport personnel, there was the spectacle of the red, black and silver Audis coming into the pits together for their final refuelling stops in a gesture of complete supremacy before taking up their victory formation as the race ended.

If Audi's fourth one-two-three at Le Mans was hardly exhilarating for the spectators, at least, after forty-nine years, the record for the overall distance covered had finally been broken. Audi's young team of Rockenfeller, Bernhard and Dumas had covered 3,397 miles, thirty-six miles more than Helmut Marko and Gijs van Lennep had managed in their Porsche 917K in 1971 on a circuit uninterrupted by chicanes. According to the ACO's statisticians, the winning car had also spent less time in the pits than any other in the race's history: just thirty-five minutes in twenty-four hours, a particularly impressive figure given

that a regulation introduced in 2009 had restricted the use of wheel guns to one gun and operator per car.

A finish in twenty-third place for a WR-Zytek painted in the colours of the French flag was a last sighting at Le Mans of Gérard Welter, who had been building and entering specials at Le Mans in his spare time since 1976. His WMs and WRs hardly ever finished the race, sometimes breaking on the parade lap, sometimes coming to a fiery end, but they had set a new all-time speed record of 405kph (251mph) for the Mulsanne straight in 1988. They had incarnated a special and precious aspect of Le Mans, the participation of the semi-professionals, something admirably resistant to the priorities of the corporate world.

The presence of 'gentleman drivers' had been an important part of the appeal of Le Mans since the days of the Bentley Boys. Now their status was regulated according to the FIA's formal driver gradings, which ranged from platinum for F1 drivers and Le Mans winners aged under fifty down through gold and silver to bronze for those who had not taken up racing until they were thirty. The principle of pro-am competition was being codified. So while a Prince Nicholas of Romania or a Porfirio Rubirosa could no longer jump into one of the fastest cars in the field, all LMP2 cars were now to include one driver with a silver or bronze licence in their crew, while the GT category was divided into GTE Pro and GTE Am, the latter for cars at least a year old with two silver or bronze licence holders among their drivers.

The most obvious of 2011's new regulations was signalled by the long dorsal fin running from the top of the cockpit above the rear of the bodywork on the new cars from Audi and Peugeot. Compulsory additions, along with pressure-relieving apertures in the wings above the tyres, to reduce the chance of the cars taking off during accidents, the fins were the clearest outward signs of the ACO's enduring efforts to balance high performance with safety and common sense. Engine capacities for LMP1, the top prototype class, were to be reduced: diesels from 5.5 litres to 3.7 and petrol from 6 litres to 3.4, considerably lowering the available power in both types and, the organisers hoped, adding ten seconds to the lap times of the fastest cars, keeping them above 3min 30sec. Hybrid power units were now permitted, with energy recovery units on the front or the rear axle but not on both. Unmodified older cars could still be

used, but with air restrictors and weight penalties. LMP2 cars would have to use series production engines costing no more than €75,000, with the price of a complete car being no more than €345,000.

Reduced power made the aerodynamics more important than ever, and the beetle-browed, V6-engined R18 TDI was Audi's first coupé since the short-lived R8C in 1999. Among the arguments for an open cockpit had been the greater ease in switching drivers at pit stops, but the stops were going to be longer anyway now that only two mechanics were allowed to change the tyres – one with the gun, one with the wheel. The smaller engines prompted the observation from Tom Kristensen that a change in driving approach would be required: 'You need to think more about momentum and rhythm, and using every inch of the track.'

Apart from its fin, Peugeot's new V8-engined 908 looked very similar to the cars that had expired in a cataclysm of exploding turbochargers a year earlier. According to the team, it shared only a windscreen wiper with its predecessor. But the effect of the low-drag aerodynamics could be seen when, during tests at the Paul Ricard circuit, the latest car clocked 205mph, 6mph up on the previous year, despite the reduction in engine size.

Like Audi, Peugeot had taken the turbo-diesel option five years earlier because diesel engines were a major feature of the road-car ranges of their respective parent groups. Aston Martin, a specialist sports car manufacturer, had no such engine to offer customers, and chose to stay with petrol engines. After discussions with the ACO over likely decisions under the balance of performance regulations, Dave Richards sanctioned the building of an all-new car at the Prodrive factory: an open-cockpit prototype, designed mostly via CFD software, with a new turbocharged straight-six two-litre engine. 'Incomprehensible! An open car with the wrong engine, a straight-six with a turbo,' Audi's Ulrich Baretzky told *Motor Sport*. 'Sorry, but this is one of the worst combinations I have ever seen.'

Two test days were held in April, for the first time in three years. All three Audis produced lap times well below 3min 30sec. When the cars reconvened for the qualifying sessions in June, Benoît Tréluyer's pole position lap in 3min 25sec was a few tenths faster than the best of the Peugeots. Audi could also make a set of Michelin tyres last four and even sometimes five stints, while the Peugeots were able to run twelve laps between refuelling stops against eleven for the German cars.

The grid was flagged away by Jean Todt, the former Peugeot Sport boss and now the president of the FIA. While his former team fought it out at the front with their Audi counterparts, the Gulf-sponsored works Aston Martins were enduring utter humiliation. Between them, the two AMR-Ones completed six laps. Darren Turner beached one car at what was now named the PlayStation chicane on the Mulsanne straight while the other, with Adrián Fernández at the wheel, broke its water pump. This was a debacle to exceed that of 1967, when the two Lola-Astons of John Surtees and Chris Amon managed twenty-eight laps between them.

Midway through the third hour Allan McNish in the third-placed Audi came up on the right-hand side of his teammate Timo Bernhard as they passed under the Dunlop bridge. Immediately ahead of Bernhard, and about to be lapped, was the class-leading GTE Pro Ferrari F430 of Anthony Beltoise, son of the former Grand Prix winner Jean-Pierre Beltoise. As McNish went past Bernhard and started to dive for the inside of the first bend of the Forest Esses, Beltoise turned in, unaware of the presence of the second Audi. The front of his car touched the rear of McNish's car, which slewed in front of him and veered across the gravel run-off. Flying into the tyre barrier at undiminished speed, the Audi disintegrated under the shuddering impact, hurling debris – including a wheel – into the area reserved for marshals and photographers before the main body of the car fell back on the track side of the barrier, on its roof. It looked unsurvivable, but a few minutes later the spectators on the spot were applauding as half a dozen marshals managed to roll what was left of the car onto its side before McNish climbed out. The blameless Beltoise was able to continue as the safety cars were sent out to slow the pace for more than an hour while the barrier was repaired.

Soon after nightfall, another of the Audis made an equally dramatic exit when Mike Rockenfeller, lying third, tried to lap the AF Corse Ferrari of Rob Kauffman, an investment banker from North Carolina. As they went through one of the fast kinks between Mulsanne and Indianapolis, the Ferrari unwittingly edged into the side of the Audi, sending it smashing first into the barriers on one side of the track and back across the road for a second impact. Rockenfeller was taken to hospital for observation but suffered nothing worse than a small cut. Kauffman was brought in and ordered by the race director to take no further part. The safety cars were out again, this time for more than two hours.

As a rosy-fingered dawn broke over the Sarthe, with three Peugeots faced by the sole remaining Audi, the order on the road constantly reshuffled as the quartet dived in and out of the pits. Audi's Marcel Fässler and Peugeot's Anthony Davidson hurled their cars into one of Le Mans' great duels, swapping positions with the brio of club racers at Brands Hatch. When Tréluyer took over the Audi, he and Peugeot's Simon Pagnaud engaged in a similar battle, threading and shouldering their way through the slower cars.

The French team's nerves were stretched by a one-minute stop-and-go penalty imposed on Sarrazin's car after a commissaire spotted one of its mechanics not having his visor closed while holding the refuelling hose, and then when Wurz took his car across the gravel and into the barrier at Indianapolis, extracted by a tractor before returning for lengthy repairs. With five hours to go, the leading Audi of Lotterer, Tréluyer and Fässler now had only one Peugeot – that of Bourdais, Lamy and Pagnaud – in close pursuit, the others being two laps and four laps behind. But none of them was letting up. Davidson rode the kerbs and used the width of the run-offs as he tried to resist Tréluyer's attempt to lap him again, and when Montagny, two laps behind, was outbraked at the Mulsanne corner after blocking the Audi for half a lap, Dr Ulrich's curled lip gave way to a pumped *fist*.

Rain arrived with just under three hours remaining, falling in some parts of the track and not in others, throwing the team strategists into confusion as cars flew off the track before tyres could be changed. Gené baulked Lotterer with pointless brutality at the first chicane, prompting the German driver to chop across the Spaniard when he finally got by. Lotterer's willingness to continue taking risks while in the lead provided thrills for the spectators but palpitations for the Audi management.

With fifty-five minutes to go, Lotterer came in for a refuelling stop. Five laps later the Audi's sensors detected a slow puncture and he was back in for tyres and a top-up just before Pagnaud brought the second-placed Peugeot in for fuel only. They were in the same order when they came out, but now only ten seconds apart. Pagnaud had half an hour, on part-worn tyres, in which to catch the freshly reshod Audi. The gap went out to fifteen seconds, then came down, then went up again to seventeen seconds as the two cars dealt with traffic. This time there would be no ceremonial last lap. When Lotterer, still going flat out, crossed the line as the winner, Pagnaud was thirteen seconds behind – the closest margin since 1969, when Jacky Ickx held off Hans

Herrmann. In their three winning drivers, Audi had found a combination capable of taking over when others fell by the wayside and of battling to ensure victory ahead of the Peugeots – for whom a sweep of second to fifth places for the three works entries and an older Oreca-entered car was little consolation.

Finishing well in a LMP1 Lola-Aston Martin in her ninth and final appearance at Le Mans was the daughter of Jacky Ickx, the six-times winner, and his first wife, the designer Catherine Blaton, the daughter of 'Beurlys'. Vanina Ickx had not taken up racing until she was twenty-one. Her seventh place put her third in the list of women succeeding at Le Mans, behind Odette Siko's fourth place in an Alfa Romeo in 1932 and Anny-Charlotte Verney's sixth in a Porsche in 1981, and equal with Desiré Wilson, also in a Porsche, in 1982.

It was another woman who played a decisive role in one of the most compelling contests for overall victory in the history of the Grand Prix d'Endurance: the first female race engineer of a winning car. Leena Gade, from Perivale in west London, was one of three daughters of Indian immigrants, two of whom became obsessed with motor sport, attracted by the battles between Nigel Mansell and Ayrton Senna on TV. She graduated from Manchester University with a masters degree in aerospace engineering before taking a job at Jaguar Cars, using her weekends to work with racing teams, first as a mechanic in Formula Vee and then as a data engineer in Formula BMW and GT cars. In 2006 she gave up her job at Jaguar after six years and went to Le Mans for the first time that year as a member of a team running an LMP1 Lola. A year later she joined Reinhold Joest's Audi Sport team and four years after that, in her first season as a race engineer, she was a winner at Le Mans.

Earlier in the year, disastrous performances at Sebring and Spa had made her consider quitting. She remembered her mother's view that she tended to take too much onto her shoulders. 'But one of my strengths is that somehow, with a little organisation, I can find a way to make it work,' she said. Later she would remark on how, when hers was the only works Audi left in the race, the other crews backed her up: 'It could easily have ended up with everyone throwing in their opinions, but it didn't. I was allowed to use my judgement to make the calls we needed.'

Garage 56 was the slot reserved at Le Mans for technical innovation. In 2012, Yves Courage's all-electric project and GreenGT's hydrogen-fuelled car were rejected in favour of Nissan's DeltaWing, an odd-looking machine with its front wheels very close together, as though it had been squeezed by a very large vice. It was the work of Ben Bowlby, who began building cars as a teenager with his father before studying engineering at the University of East London, followed by ten years at Lola during which he had become noted for interest in unorthodox solutions.

The concept of the DeltaWing was to make a competitive car with half the weight, half the power and half the fuel consumption of its rivals, exploiting aerodynamic properties achieved with a much smaller frontal area and without the use of conventional wings. Backed by Don Panoz, who successfully presented it for the ACO's approval, it was built by Dan Gurney's All American Racers in Santa Ana, California, with Nissan supplying its turbocharged 1.6-litre four-cylinder engine in exchange for naming rights. In the qualifying sessions, its drivers – Marino Franchitti, Michael Krumm and Satoshi Motoyama – placed it twenty-eighth on the grid, its time of 3min 42sec almost twenty seconds slower than the pole position lap.

The absence of Peugeot followed an announcement towards the end of 2011 that, in the face of the global financial crisis, PSA Peugeot Citroën, Europe's second largest car maker, would be cutting 6,000 jobs to save €800 million. In January 2012 the decision to cancel plans to return to Le Mans was made public: a particular disappointment for Jean Todt, Peugeot's former team boss, who had collaborated with the ACO on the creation of a new World Endurance Championship, an eight-race series starting at Sebring and ending in Shanghai, in which Le Mans would count for double points.

Others would be taking advantage of an invitation to exploit hybrid technology, two years ahead of its adoption by Formula 1. Toyota's rear-drive TS030-Hybrid, built at the company's Cologne headquarters, used a KERS (kinetic energy recovery system) unit adding 300bhp to the 530bhp of the 3.4-litre V8 petrol engine. Audi's R18 e-tron quattro employed electric motors designed with the help of Williams Hybrid Power, the regulations now permitting their application to all four wheels at speeds above 75mph, supplementing the power from their 3.7-litre V6 turbo diesel.

Audi entered two of the new cars and two of the previous year's non-hybrid R18s, sharing the top six positions on the grid with the two Toyotas. It

was André Lotterer who took Audi's seventh pole position and then jumped into the lead as Takeshi Uchiyamada, the vice-president of Toyota, waved the starting flag. Two Audis sat ahead of two Toyotas – all four with hybrid power units – until the end of the fourth hour, when Tom Kristensen in the second-placed R18 spent several minutes in the pits having its rear suspension cleared of vibration-creating rubber debris.

An hour later Nicolas Lapierre squeezed his Toyota past Tréluyer by taking to the grass after the Mulsanne corner, putting the Japanese team first and third – an encouraging sight until Anthony Davidson, in the second of the cars, made contact with Piergiuseppe Perazzini's Ferrari at the approach to the Mulsanne corner, triggering a horrific accident from which both drivers were lucky to escape. Perazzini, twice a winner of Italy's GT championship, failed to spot Davidson diving inside him and turned into the Toyota, which was launched high above the track, air catching the flat underbody, the car rolling and twisting before landing very hard on its hind quarters and smashing into the tyre barrier. The Ferrari's own impact with the tyres sent it rebounding onto its roof. Perazzini removed his helmet and stood by the wreck looking rueful while Davidson was taken to the medical centre. The impact of his emergency landing was found to have cracked two vertebrae. Only the design of the Toyota's seat, he said later, had saved him from something much worse.

The evening light had turned golden and racing had just resumed after more than an hour under the safety cars when a gaggle of cars including Fässler in the leading Audi, Kazuki Nakajima in the second-placed Toyota and Motoyama in the DeltaWing approached the Porsche curves. As they turned into the first left-hander, Nakajima pushed Motoyama across the grass and into the concrete wall, inflicting damage to the DeltaWing's steering, power train and bodywork. Once the marshals had pushed his car out of harm's way, Motoyama was joined by mechanics advising him on how to get it mobile enough to return to the pits. After an hour and a half of endeavour, he admitted defeat. A delegation from Toyota later made its way to the Nissan pit to apologise. It would not be long before they, too, were forced to close their garage doors when the second of the TS030s retired with engine failure.

Another Audi victory parade concluded with Lotterer regaining the lead and holding it for the final two hours. A second consecutive victory for the trio of drivers and for Leena Gade, their race engineer, it was also the first win at Le Mans for a hybrid and the first for a four-wheel-drive car. Again Audis

filled the podium, with Dindo Capello taking second place on his forty-eighth birthday alongside Kristensen and McNish, ahead of the Audi North America entry of Mike Rockenfeller, Oliver Jarvis and Marco Bonanomi. Capello, who had learned to drive at the age of eight on a football pitch in his grandfather's Fiat 500, could take a record at Le Mans of three wins, three second places and four thirds with him as he retired from racing prototypes to run his Audi dealership in his native Piedmont.

In 2013 Henri Pescarolo was at the wheel of the red Audi pace car for the celebration of the race's ninetieth anniversary, his team now in liquidation and his face bearing the signs of a stroke he had suffered five years earlier. As a driver, Le Mans had almost taken his life in 1969 while giving him the four victories that made him immortal. As the field toured round under grey skies behind him, the drivers were trying to get a feeling for the damp track. But once they had been unleashed, and with the race only ten minutes old, the second chapter of the Audi versus Toyota contest was overshadowed by a fatal accident.

As the field came through Tertre Rouge for the third time, spectators gasped at the sight of an LMP2 car and a GTE Pro coupé spinning through 360 degrees on the greasy surface before continuing safely. A few seconds later, dashboard cameras from the cars immediately behind the works-entered, Gulf-sponsored Aston Martin Vantage of Allan Simonsen showed the blue and orange No. 95 car twitch as it moved from the apex of the corner to the outside of the track before veering left into the barrier, bouncing and turning over, landing back on its wheels. Rolling slowly to a halt, facing the way it had come, it came to rest in the middle of the track, with the passenger-side door missing, the rear wing torn off and a detached front wheel wobbling down towards the verge. Orange-suited marshals were quickly joined by the medical teams to extract the driver and take him to the infield medical centre, where he was declared dead. The 34-year-old Dane was the first driver to be killed during the 24 Hours since Jo Gartner in 1986.

The safety cars were out for an hour. When racing recommenced, so did the battle between three Audis and two Toyotas. Allan McNish started from pole position but the winning crew of the previous two years – Lotterer, Fässler and Tréluyer – proved quickest in the race. Although the Toyotas had the

better fuel economy, both cars briefly taking the lead as the first pit stops were made, the Audis had the outright pace and were holding the first two positions after nightfall until Tréluyer was forced to spend forty-five minutes in the garage while a faulty engine sensor was changed. The R18 of McNish, Kristensen and their new partner, Loïc Duval, took over the lead and held it while the Toyotas fought for second place.

As a storm suddenly arrived, inundating the southern half of the circuit, Lapierre put his Toyota into the wall at the Porsche curves, got out and surveyed the damage, considered giving up and then returned to the cockpit and managed to get back to the pits, where repairs enabled him to go out and finish. By the time the Audi of Kristensen, McNish and Duval saw the chequered flag, they had led 248 laps of the race, out of a total of 348. A lap behind them came the Toyota of Davidson, Sarrazin and Buemi, with the Audi of Lucas di Grassi, Marc Gené and Oliver Jarvis third.

For Duval, born seventy miles away in Chartres, it was a first win in a fifth appearance at Le Mans. For McNish, it was a third success to preface his retirement at the end of the year. Kristensen's ninth win was by far his saddest. As he stood on the podium, with the Danish flag at half-mast, he listened to Jacky Ickx, his predecessor as 'Monsieur Le Mans', address the throng to acknowledge the tragedy that had marred the race, flanked by the sombre figures of Dave Richards, Aston Martin's team principal, and Pierre Fillon, the ophthalmologist who had taken over as president of the ACO, the latest in a line stretching back to Gustave Singher.

Kristensen described in his autobiography how he dealt during the race with being told, half an hour before he was scheduled to get back into his own car, that Simonsen was dead. He thought of the late driver's girlfriend and daughter. Then he imagined sitting around a table with Simonsen and his own father, Carl Erik, a former rallycross champion who had died three months earlier. Over cups of coffee, they were talking about what Tom should do. Together they concluded that he should go out and 'win the goddamn race'.

Curiously, perhaps the task was made easier by the conditions: wet, dry, damp, greasy, all of those sometimes in a single eight-mile lap, changing constantly through the evening and the night and the following day. Kristensen needed not just every bit of his experience, his touch and sensitivity, but complete concentration, all other thoughts shut away. Then, as he drove the car across the finish line, with the fans hoisting Danish flags

above the umbrellas in the spectator enclosures in an act of mingled celebration and mourning, he let go the only tears he had shed in seventeen years at Le Mans.

In 2014 Wolfgang Ullrich could look back on the day, twenty-one years earlier, when he joined Audi as their head of motor sport, only to discover that the main board, wanting to cut costs, was contemplating the cancellation of all sporting activities. He had a few days in which to present them with a modest proposal that would save his job. A programme of touring car races was soon achieving success, with cars and drivers competing in seven championships around the world and winning them all. At the end of 1997 he agreed a deal to create a new endurance racing team with Reinhold Joest, who had run Porsche's Le Mans programme. In their first exploratory year at the 24 Hours they finished third and fourth. In their second year their cars filled the podium. By the time they arrived at Le Mans in 2014 they had won the race twelve times, losing once to Peugeot and missing another year when the winner, a Bentley, was powered by an Audi engine. They had surpassed the nine victories of Ferrari and were heading towards the sixteen of Porsche, the company Ullrich had left to join Audi.

But 2014 would present them with their biggest test, not just from Toyota's new TSO40 but from the return of Porsche with a works team targeting the overall victory for the first time in more than a decade and a half. In that time the Cayenne, for which Porsche's racing programme had been suspended in 1998, had helped take the company's sales from 18,000 to almost 130,000 vehicles a year. And in 2009 Porsche was absorbed into the Volkswagen Group, along with Audi. The VW supervisory board now consented to the two marques racing against each other, as long as they were showcasing different technologies. A new set of rules for hybrid cars, devised by the FIA and the ACO in consultation with the leading teams, made that possible.

The need to preserve a competitive balance between the top teams was becoming an increasingly complex task. Now the rule-makers opted to equalise power outputs of the hybrid units, measured in megajoules, which seemed to make things simpler while encouraging the engine designers to seek different solutions. So as Audi continued to run their turbocharged four-litre V6 diesel and Toyota developed their 3.7-litre normally aspirated petrol V8,

Porsche opted, on the grounds of light weight and compact configuration, for a two-litre turbo V4 running on regular fuel. All were using different forms of energy recovery system, drawing from the braking or exhaust systems and linked either to the front axle or rear axle or to both.

Unlike Audi, who relied on Joest's racing operation, and Toyota, who entrusted their racing to Hugues de Chaunac's Oreca organisation, Porsche set up an entirely new in-house racing team at their Weissach headquarters under the direction of Andreas Seidl, formerly with the Sauber-BMW F1 outfit. The drivers for their new 919 Hybrid included Romain Dumas and Timo Bernhard, both winners with Audi, Marc Lieb from their GT team, and the New Zealander Brendon Hartley and the Swiss Neel Jani, who had both driven LMP2 cars at Le Mans. The sixth driver would be Mark Webber, whose last experience of Le Mans had been flying through the air in a Mercedes in 1998, and who had just ended an eleven-year career in F1 with nine Grand Prix wins to his name.

In Garage 56 there was a car that looked familiar. With its very narrow front track, the Nissan ZEOD RC resembled the DeltaWing of two years earlier so closely that Chip Ganassi and Don Panoz, who had supported the entry in 2012, were moved to sue for 'damages and injunctive relief arising out of theft and confidential and proprietary information, misappropriation of trade secrets, breach of contracts, unjust enrichment, fraud, and negligent misrepresentation'. Like the DeltaWing, the ZEOD was designed by the British engineer Ben Bowlby, but the new car had a coupé body and was powered by a three-cylinder 1.5-litre Nissan petrol engine with two electric motors. Its ambitions were to top 300kph on the Mulsanne straight and run an all-electric lap.¹

Twelve months on from Allan Simonsen's fatal crash, the corner at which his accident took place, Tertre Rouge, had been reprofiled, the tyre barriers reinforced and extended. In a further effort to improve safety, full-course yellows were replaced by a system of 'slow zones' with a 60kph speed limit, communicated to the drivers by GPS. Those drivers new to the race, and any who had not taken part in it for five years, were given a mandatory half a day's training in a simulator, in both daylight and night-time conditions.

New to the No. 1 Audi was the Brazilian driver Lucas di Grassi, replacing Allan McNish alongside Tom Kristensen and Loïc Duval. Kristensen's hopes of

a tenth win had a setback when Duval severely damaged the car in a huge accident during the Wednesday practice session, flying over the wall at the Porsche curves. While the car was completely rebuilt overnight around a new monocoque, Duval went home to Geneva with light injuries, to be replaced by Marc Gené. Then di Grassi crashed at Arnage during the Thursday evening qualification session, meaning more work for the mechanics.

The return of Porsche and the prospect of a three-way battle for overall victory boosted the attendance to 263,000, the largest since 1988. The actor Gérard Depardieu was among the celebrities on the grid, McNish was at the wheel of the pace car and Fernando Alonso – who would one day reveal Le Mans ambitions of his own – drove a demonstration lap in a long-tailed Ferrari P4, a car seeming even more beautiful fifty years after its heyday, before lowering the flag to start the race.

Kazuki Nakajima's qualifying lap had denied Audi another pole position, but it was Alex Wurz who started in the No. 7 Toyota, sprinting away from Jani in the first of the Porsches, with Nicolas Lapierre's Toyota ahead of Bernhard's Porsche and the three Audis of Lotterer, Marco Bonanomi and Kristensen. On the sixth lap the ZEOD could be seen slowing to a crawl and stopping for good with a broken gearbox.

As the sky turned black and heavy rain fell during the second hour, a multiple collision on the Mulsanne straight between the two chicanes involved Bonanomi, whose Audi was unfit to continue, and Lapierre, who hit the barrier head-on in the No. 8 Toyota. Lapierre was able to tear off the mangled bodywork and make it back to the pits, where repairs to the front end occupied an hour. He and his fellow drivers, Anthony Davidson and Sébastien Buemi, would plug on, making up positions as the hours went by.

Porsche, Toyota and Audi all held the lead during the night, the lead changing hands as cars succumbed to blown turbos, melted wiring looms and other problems. With less than four hours to go, Bernhard's Porsche was at the front. Webber replaced him with an hour and a half left, but was soon slowing to a crawl on the Mulsanne straight before bringing the car in for a long stop to repair what the team described as a broken rear anti-roll bar. As the two Audis cruised back into the lead, both Porsches were prepared for a final lap that was more symbolic than competitive. The Dumas/Lieb/Jani car, handicapped by a persistent fuel pressure problem, was classified eleventh while Bernhard, Hartley and Webber, who had been given the scent of victory,

discovered that covering 346 laps would not be enough to qualify them as official finishers. The persistence of Davidson, Lapierre and Buemi was rewarded with third place for Toyota.

Lotterer, Fässler, Tréluyer and Leena Gade secured their third win together, to follow those of 2011 and 2012, ahead of Kristensen, Gené and di Grassi. 'It was the car which had the least bad luck that won,' said Tréluyer, who had brought the Audi home. For Kristensen, a late turbo replacement had removed the chance of his tenth win. As the two Audis toured round in formation, headlights flashing to salute the marshals, retirement was not in his mind. Later he would learn that a Gulf-liveried Aston Martin Vantage, bearing the No. 95 and with an all-Danish crew, had honoured the memory of Allan Simonsen by taking the LMGTE Am class.

It was a few weeks later that Kristensen began thinking about how much lighter in spirit his old teammates Capello and McNish, now retired, seemed whenever he bumped into them at Audi functions. In November, he would give Dr Ullrich the news of his intention to retire. What neither he nor Dr Ullrich could know was that this, the team's thirteenth win at Le Mans, would be their last. They would be back the next year, but an era was already over.

For one 44-year-old, the adventure of Le Mans was just beginning. Fabien Barthez's day of glory had arrived in 1998, at the Stade de France in Saint-Denis, when his sometimes eccentric but always brave and agile goalkeeping helped Zinedine Zidane, Didier Deschamps and the rest of France's national football team to victory over the Brazil of Ronaldo and Rivaldo. Throughout the competition his captain, Laurent Blanc, bestowed good luck on Barthez by giving the goalkeeper a pre-match kiss on his bald head, an image that enchanted the French public. Two years later the team swept to another victory, this time over Italy, in the final of the European Championship. After retiring from football in 2007, Barthez took his first steps in motor sport, competing in the Porsche Carrera Cup. His debut at Le Mans came in a Ferrari 458, he and his co-drivers finishing twenty-ninth overall and ninth in the GTE Am class. Soon he would be co-founding his own LMP2 team, the only winner of football's World Cup – after Olympic skiers and showjumpers, a first-class cricketer and a French rowing champion – to take part in the 24 Hours of Le Mans.

[1.](#) Having helped the ACO to revive Le Mans when its future was uncertain in the 1990s, Don Panoz sold the circuits his enthusiasm for the sport had led him to acquire – Sebring, Mosport and Road Atlanta – and became involved in electric vehicle technology with Chinese partners before dying of pancreatic cancer in 2018, aged eighty-three, two years after the ZEOD action had been settled on undisclosed terms.

CHAPTER 22

Bringing it home (2015–19)

When Nissan planned a new car for Le Mans in 2015, they launched it in a place where it could hardly be missed: as part of a ninety-second TV commercial screened during Super Bowl XLIX between the New England Patriots and the Seattle Seahawks. Showing the reunion of a driver and his teenage son, the ad reached a US audience of 118 million at a reported rate of \$9 million per minute. In it viewers were able to glimpse the result of Nissan's invitation to Ben Bowlby, designer of the ill-fated DeltaWing and the ZEOD, to create a competitive LMP1 car that was not an Audi copy. His response was the eye-popping front-engined, front-drive GT-R Nismo.

Nissan's six-year-old alliance with Renault had made the company the world's fourth largest automobile manufacturer, turning out more than 8 million vehicles a year. Nismo (Nissan Motorsport) had been formed in 1988 but had made little impression at Le Mans. Still ambitious, but lacking the budget of Toyota or Audi, they opted for innovation, allowing Bowlby to reverse the conventional wisdom. Instead of achieving high downforce at the rear of the car, he would concentrate on the front, leaving the rear end clear for a smoother airflow which, he believed, would suit the sustained high speeds that were a feature of Le Mans.

The engine, developed in collaboration with Cosworth, would be a twin-turbocharged three-litre V8, augmented by a flywheel-driven kinetic energy recovery system feeding power back to the front wheels, which carried wider tyres than those at the rear. Set to maximum, Bowlby claimed, the hybrid power unit would probably be able to deliver 1,600bhp. Testing in Arizona

and Texas was intended to lead up to a pre-Le Mans debut at Silverstone, but the car failed its initial FIA crash tests and the team arrived in France with no experience of racing the three cars they had built.

Their unusual looks brought a great deal of attention, as such projects had always done at Le Mans. But the hybrid system failed to work and was uncoupled for the race. When the team's motley cast of drivers – including two men who had made their way into the sport by winning a PlayStation video game – failed to come within twenty seconds of the times of the fastest LMP1s, the ACO waived its own requirement that all drivers qualify within 110 per cent of the time of the quickest in their class and allowed them in. Recognising both their box-office appeal and the commercial importance of the Nissan-Renault partnership, it placed the cherry-red machines on the grid between the prototypes and the GT cars.

Porsche, in its second year back in the top division, now recaptured all the competitiveness of its glory days. Three 919 Hybrids were entered – one painted red for Timo Bernhard, Brendon Hartley and Mark Webber, one in black for Romain Dumas, Neel Jani and Marc Lieb, and one in white for three newcomers: Nico Hülkenberg, the 27-year-old Force India F1 driver; the 24-year-old New Zealander Earl Bamber, winner of the 2014 Porsche Supercup title; and the 30-year-old British driver Nick Tandy. Unusually for a modern professional, Tandy had found his way to the upper reaches of the sport not via karting but through mini-stockcars, racing on oval tracks in an East Anglian series from the age of eleven. After winning the German Porsche Cup, he had been hired by Olaf Manthey's factory-supported GT team.

Qualifying showed the Porsches to be the fastest of the hybrids, followed by the Audis. The Toyotas, fastest of all a year earlier, had not kept pace. Jani was in pole position for Porsche, ahead of his teammates Bernhard and Hülkenberg, although Loïc Duval, in the first of the Audis, had snatched third place by the end of the first lap. Then André Lotterer took up the fight, sliding past the Porsches to take the lead after an hour and a half. Duval and Lotterer were both delayed by collisions in slow zones, and Anthony Davidson's Toyota lost time while repairs were made after he tangled with a Ferrari.

The lead switched around between the two German teams until, at around three o'clock in the morning, the white No. 19 Porsche, with Tandy at the wheel, settled at the front, followed by two Audis, another Porsche, a third Audi, a third Porsche and the Toyotas. Webber was given a one-minute stop-

and-go penalty for overtaking under a yellow flag but the Porsche–Audi contest was still intense and highly strategic, the Toyotas languishing more than half a dozen laps adrift as dawn broke. The prospect of a climactic battle between the Porsche of Tandy, Bamber and Hülkenberg and the Audi of Lotterer, Fässler and Tréluyer was ended first when the Audi lost its rear bodywork at speed and then when Fässler served a stop-and-go for failing to observe a slow zone, weaving on the pits straight and brushing Tandy's car as he did so.

Tandy, Bamber and Hülkenberg finished the race a lap ahead of the red Porsche of Bernhard, Hartley and Webber, with the Audi of Lotterer, Fässler and Tréluyer, three times a winning combination, in third. With two laps to go, Audi's Dr Ullrich made his way to the Porsche pit to congratulate his rivals. It was the marque's seventeenth win, and a very convincing one.

One Nissan GT-R Nismo had started the race from the pit lane and completed 234 laps before the gearbox failed. Another went out during the night when the suspension broke. The third car was still there at the finish but its total of 242 laps did not meet the target of 70 per cent of its class winner's total necessary to qualify as a finisher. Withdrawn from the remaining rounds of the World Endurance Championship, they would not be seen again.

The tears of Hugues de Chaunac were shared even by those who benefited from his team's epic failure in 2016. With six minutes to go, his two Toyotas were sitting in first and third places, finally ready to reap the rewards of a project that began with the Japanese company's first visit to Le Mans thirty years earlier, rekindled when de Chaunac's Oreca outfit took charge of a new campaign in 2012. Toyotas had finished second in 1992, 1994, 1999 and 2013. Throughout their years at Le Mans they had bent the knee to Porsche, Jaguar, Mercedes, Peugeot, Audi and Bentley. In 1991, while their backs were turned, they had even seen Mazda snatch the first victory for a Japanese manufacturer. Now, with less than six minutes to go, the team were about to plant their flag on the summit. Instead, what they got was the most dramatic last-minute reversal in the history of Le Mans.

To widespread frustration, heavy rain in the hour before the start had persuaded the organisers to let the race begin behind the pace car. Around 263,000 people were present as the actor Brad Pitt waved the tricolour to start

a procession headed, appropriately for the conditions, by something resembling the queue for Noah's Ark: the two Porsches of Neel Jani and Timo Bernhard followed by the two Toyotas of Mike Conway and Sébastien Buemi and the two Audis of André Lotterer and Loïc Duval. Infuriatingly for spectators, all three teams had chosen a colour scheme that mixed white, red and black, as if hybrid prototypes were allowed no alternative. Each team's stylist had come to the same conclusion: this combination of colours meant speed, meant aggression, meant business.

Fifty-three minutes of droning round had passed before Andy Priaulx, the three-time world touring car champion now at the wheel of the pace car, was told he could dive into the pit lane and set the field free to race. Each of the leading teams had been making strategic decisions based not just on speed but on economy. The Audis would need to refuel every twelve laps, the Porsches every thirteen, the Toyotas every fourteen. But when they were released to start racing at seven minutes to four o'clock, concern for such calculations seemed to have been cast aside. First Conway fought his way to the front, then Lotterer, then Hartley. Soon after nightfall, both Audis were called in by the stewards to repair defective lights illuminating their racing numbers, losing several minutes but no places as they sat behind the Toyotas and Porsches.

By breakfast time, the Japanese team had established a clear advantage, helped by a cooling problem that forced the drivers of the No. 1 Porsche to spend two and a half hours watching their car being worked on in the pits, losing thirty-nine laps and dropping to fifty-third in the process. With five hours to go, the two Toyotas seemed at last to be heading for the victory they had worked long and hard to achieve. But just before midday, Kamui Kobayashi spun the No. 6 Toyota in the Porsche curves, where the run-off had been extended and new steel and foam energy-absorbing barriers installed. A long stop to check for damage to the Toyota's underfloor and cooling system dropped the car down the order, giving a warning of what might be to come.

With eleven minutes to go, and a lead of half a minute for the No. 5 car of Buemi, Anthony Davidson and Kazuki Nakajima, the Toyota pit was full of smiles when Jani surprisingly brought the second-placed Porsche in for fuel and tyres, dropping his car more than a lap behind the leader. Five minutes later, however, Nakajima suddenly slowed halfway along the Mulsanne straight: a problem with a turbocharger had cut almost all his engine's power.

He limped round and came to a halt by the pit wall, just past the finish line, with three minutes and twenty seconds still to go.

An astonished Jani roared past to begin one last lap, at the end of which he was given the chequered flag. Nakajima managed to get the Toyota moving again on electric power and completed a final lap so slow – more than eleven minutes – that the car could not be recognised, under Article 10.5 of the ACO's rules, as a finisher. In the Toyota garage, the company's top brass kept their expressions blank as the TV cameras homed in. De Chaunac did his best to follow their example. A promotion to second place for Kobayashi, Conway and Stéphane Sarrazin was a meagre reward, even if they finished ahead of the third- and fourth-placed Audis. Almost as disbelieving were the drivers of Porsche's eighteenth winner: Jani and Lieb, victorious at Le Mans for the first time, and Dumas, taking his second win.

The battle in the GTE Pro class might not have tugged the heartstrings quite as powerfully, but it was an even better contest. The long-running fight between Ferraris, Corvettes, Porsches and Aston Martins was now enlivened by the return of Ford with a works-supported team supervised by Floyd 'Chip' Ganassi, whose last race as a driver had been in a Sauber-Mercedes at Le Mans in 1987. Ganassi split the effort between two teams, one run from the US and the other from the UK. The car was a second-generation Ford GT, a design originally created ten years earlier to evoke the memory of the GT40 of the 1960s. Now the idea was to return to Le Mans fifty years after the GT40 had achieved Ford's first win there in the hands of Bruce McLaren and Chris Amon.

The new car's British designer, Chris Svensson, had conceived it specifically to meet the requirements at Le Mans, with low downforce and aerodynamic efficiency as priorities. Powered by a 3.5-litre twin-turbo V6 engine, the cars were built at Multimatic, a specialist manufacturer in Ontario, Canada. After their pre-Le Mans appearances at Daytona, Sebring, Silverstone and Spa, some rival teams complained that the Ford transgressed the spirit of the GT regulations by bearing too little resemblance to a series-production road-going car. Dismissing the charge, the ACO acknowledged the team's desire to emphasise its historical associations with the race by giving the cars the racing numbers 66, 67, 68 and 69, in honour of the four straight wins that had crowned the campaign sanctioned by Henry Ford II as his revenge against Enzo Ferrari.

The Team USA cars set the pace in qualifying through Dirk Müller and Ryan Briscoe, ahead of the Ferraris – and so far ahead of the Corvettes, Astons and Porsches that the ASO made balance of performance changes on the eve of the race in an effort to even out the competition. But the car of Müller, the Californian Joey Hand and local hero Sébastien Bourdais would still beat off the challenge from the new works-supported Ferrari 488 of the Houston-based Risi Competizione team. For Edsel Ford II, Henry II's son and the company's vice-president in charge of sporting activities, it could hardly have been a more satisfactory return.

In thirty-eighth place, of forty-four finishers, came the occupant of Garage 56, an LMP2 car modified to accommodate Frédéric Sausset, a 47-year-old manager of a textile business from Blois who had lost all four limbs to a form of sepsis called necrotising fasciitis, contracted from a small scratch on a finger while on holiday in south-western France. After he emerged from a month-long coma, surgeons at a hospital in Tours performed a series of amputations: one arm above the elbow, the other below; both legs above the knees. Sausset had barely begun his convalescence when he conceived a plan that would make him the first quadriplegic driver to compete at Le Mans.

He had never raced a car. But he found support for his scheme from Christophe Tinseau, a racing instructor who had taken part eleven times in the 24 Hours, and from OAK Racing, based in the Technoparc at Le Mans. Having secured the ACO's permission, and spent a season getting Sausset used to racing in a domestic sports car series, they prepared an open-cockpit Morgan with a Nissan V8 engine, adapted for Sausset by providing thigh-operated levers attached to the throttle and brake pedals, a prosthesis on his right arm attached to the steering wheel by a removeable pin, an automatic gearbox, a voice-activated radio communication system and a seat easily removable in case of emergencies, developed with the ACO's help. For his co-drivers, Tinseau and Jean-Bernard Bouvet, these devices could be quickly stripped out when they took over the cockpit.

At the test day in early June, Sausset lapped in 4min 2sec, only seventeen seconds slower than his experienced co-drivers' best times, confirming the conclusion Tinseau had reached soon after they began the project: 'Everything depended on his talent. If I thought he'd made the wrong decision, I'd have stopped him straight away. But I saw someone with incredible motivation who never stopped making progress.' At Le Mans the car was delayed by a ninety-

minute stop during the night when the clutch failed, but with half an hour to go, Sausset was lifted into the cockpit to drive the final laps.

In 2017, after seventeen years of almost unbroken success, there were no Audis at Le Mans. Their parent company, the Volkswagen Group, had recently admitted their guilt over falsifying test procedures in order to meet emission standards for their best-selling diesel engines. Three years earlier the California Air Resources Board had noticed something amiss – something that had escaped the attention of the authorities in Europe and elsewhere – and ordered an investigation which revealed that Volkswagen had programmed engine software to give favourable results in emissions tests that were not matched in real-world use. Now the US Environmental Protection Agency accused the company of selling almost half a million VWs and Audis in their territory using the type of two-litre TDI engine that had been configured to beat the tests. Later the charges were extended to include the three-litre TDI engines used in the Audi A6 Quattro and the Porsche Cayenne.

At first the findings were dismissed as the result of ‘technical glitches’, but the company’s stock market value fell sharply. In 2017, Volkswagen owned up. The engines certified thanks to the use of the device created to defeat testing had been installed in about 11 million diesel vehicles sold by the group worldwide, 8.5 million of them in Europe. Board resignations were accompanied by the suspension of the heads of R&D at Audi and Porsche. Criminal charges in the US led to a \$2.8 billion fine, part of the \$33 billion the affair was eventually estimated to have cost the company in penalties, fines, financial settlements and buybacks.

The scandal shed a different light on the success of the latest generation of diesel engines, as many began to question the campaign that had encouraged buyers to choose a technology claimed to be less polluting than petrol engines. Now it seemed that the reverse was true. This threw a shadow on the efforts of the UK government, for example, to reward diesel buyers with a lower vehicle excise duty on the pretext that diesels emitted lower levels of carbon dioxide. The success of the scheme was such that 3 million diesel cars on Britain’s roads in 2000 had become 21 million by 2017, accounting for half the new-car market. But as a columnist in *Autocar* pointed out, now that the public

perception of diesel as a 'dirty fuel' had taken hold, 'it's hard to see how public trust in diesel-powered cars will be restored'.

In June 2016 Volkswagen's new chief executive, Matthias Müller, announced major investments in electric vehicle technology, predicting that such vehicles would account for a quarter of its annual sales by 2025. Müller's words were reported twelve months before the race at Le Mans took place without the low drone of a single diesel engine for the first time in a decade.

However innocently, Dr Ullrich and his team's eight wins with turbo-diesel engines had been part of a commercial effort based on selling the public not just a flagrant lie but a lie concealing something damaging to the environment. As they went about the legitimate work of building a dominant racing team, their success helped shape the acceptance of diesel technology among potential customers who were then lured into the purchase of cars that would not, without the strategy of deception, have been allowed on the road. Remembering the belief of the race's founders in promoting improvements in engineering for the benefit of the public, Audi's diesel-powered successes constituted a betrayal of whatever it was that the Grand Prix d'Endurance stood for.

The presence of a TV camera in Kamui Kobayashi's cockpit allowed everyone to appreciate the lap of extraordinary brilliance by the 30-year-old former Sauber F1 driver that put Toyota Gazoo Racing's TS050 on pole position in 2017. His time, 3min 14.791sec, at an average of 156mph, made it the fastest ever on the circuit in its contemporary guise, and only 0.9sec slower than Pedro Rodríguez in the Porsche 917 in 1971, when there were no chicanes anywhere and the great Mexican could sit on the Mulsanne straight for almost a minute at well over 200mph. He was taking advantage not just of a new 2.4-litre twin-turbo V6 engine but of a tailwind between the chicanes on the Mulsanne straight and a headwind that made it easier to balance the car through the Porsche curves. When Nakajima put the second of the three Oreca-run cars next to Kobayashi's No. 7 on the grid, ahead of two Porsches and the third Toyota, it was clear who the pace-setters would be.

In the absence of Audi, there were only six LMP1 cars in the race: three Toyotas, two Porsches and an ENSO-Nismo, built by Lotus for Colin Kolles's ByKolles team and using an engine from Nissan's abandoned GT-R project. By

contrast, there were twenty-five starters in the LMP2 class, all conforming to regulations requiring the use of the 4.2-litre Gibson V8 engines built in the Derbyshire town of Repton, installed in a chassis from one of four approved manufacturers: Dallara in Italy, Ligier and Oreca in France and Riley in the US. On the grid there would be seven Ligiers, three Dallaras, one Riley and twelve Orecas, plus two more Orecas rebranded as Alpines, all with different paintwork but now looking much and sounding exactly the same.

The opening tussle between the Toyotas and the Porsches seemed to be going the way of Mike Conway and Sébastien Buemi in the Japanese cars, particularly when Earl Bamber in the No. 2 Porsche was forced into the pits in the fourth hour for a long stop to sort out the energy recovery system on the front axle, losing eighteen laps and pushing the car down to fifty-sixth place. At ten o'clock in the evening Buemi, in second place in the No. 8 Toyota, complained over the radio about hearing a noise from the front brakes while overtaking Jani for second place, to be told that the telemetry showed nothing wrong. Once in the pits, the right front brake burst into flames. 'I told you!' Buemi shouted as his crew pushed the car back into the garage, where it would stay for two hours before re-emerging.

Toyota still had one car at the front and another in third place, but just before three o'clock in the morning Kobayashi brought the leading No. 7 car to a halt out on the circuit, unable to find a gear. The clutch had failed. The driver got out as the No. 1 Porsche went into the lead, followed by the No. 9 Toyota, but then got back in and tried to drive it back to the pits on the electric motor. Just as he reached the entrance to the pits, the battery ran out of charge and the car's race was over. Then Nicolas Lapierre in the No. 9 Toyota collided with an LMP2 car in a traffic jam just after the pits exit, losing bodywork, damaging the hydraulics as rubber flailed from a burst tyre, and briefly catching fire from a broken oil line. He, too, tried to drive it back on the battery, but was forced to stop and abandon the car. Two Toyotas were out before half-distance, and the third was out of contention. Once again Hugues de Chaunac's world had come crashing down.

Not that Porsche's race went much more smoothly. The No. 2 car, shared by Bamber with Timo Bernhard and Brendon Hartley, was gradually making its way back through the field after its long stop while Jani, leading in the No. 1, had spun the car harmlessly at the pits entrance. Second and third places were now held by the two LMP2 Orecas of the Vaillante Rebellion team, sponsored

by the publishers of the Michel Vaillant comic-strip books, with Bruno Senna, nephew of Ayrton, and Nicolas Prost, son of Alain, in the first of them and Nelson Piquet Jr, the son of another world champion, among the crew of the other. Fourth was one of two Oreca's entered by the team sponsored by Jackie Chan, the Hong Kong actor and star of many martial arts movies. Chan had been brought into the sport by David Cheng, a Chinese-American driver who was sharing the second car. And when both the Rebellion Oreca's were delayed, the two Jackie Chan cars moved up to third and fourth overall.

With just under four hours to go, Lotterer was enjoying a lead of thirteen laps in the No. 1 Porsche when it slowed as it passed the pits. The oil pressure had gone. As with the two Toyotas, the attempt to complete the lap on battery power from the hybrid unit was a failure and the car was out. Into the lead went Oliver Jarvis in the first of the Jackie Chan cars: an LMP2 car was leading the race for the first time ever, seemingly with a good prospect of an historic victory.

Behind Jarvis now lay the No. 2 Porsche, ten seconds a lap faster than the LMP2 cars with Hartley working hard to take back positions from the second Chan car, the works Signatech Alpine and the Rebellion Oreca. The leading Chan car, now driven by Ho-Pin Tung, was still almost two laps ahead of the Porsche when, with two and a half hours to go, Bernhard took over from Hartley and continued the chase. Barely an hour later he regained the lead. In so doing he had saved the honour of the LMP1 hybrids and averted the prospect of the Coupe à la Distance being won by a car using an engine specified for all the entrants in its class in a chassis whose design was also tightly regulated.

By climbing from last to first in twenty hours, Bernhard and his teammates had achieved what may not have been the closest victory but, from one statistical perspective, was the most remarkable in eighty-five editions of the race. Behind them came the two Jackie Chan cars, with Jarvis, Tung and Thomas Laurent in a magnificent second place, rewarding the support of a man said to be the world's second highest paid film star, whose involvement had begun when he told David Cheng of his fondness for Steve McQueen's *Le Mans* movie.

Second in the LMP1 class but eighth overall, nine laps behind the Porsche after a two-hour stop, came the No. 8 Toyota. Buemi had spent the last hour setting the fastest laps of the race, which only went to show the watching Akio

Toyoda, the Japanese company's president and a grandson of the founder, what might have been. A motor sport fan who had himself raced under a pseudonym at the Nürburgring 24 Hours in 2009, Toyoda apologised afterwards to their fans for failing to live up to their expectations and to the drivers for not giving them cars capable of winning the race. 'Le Mans,' he said, 'is a precious laboratory in which we will continue to take up the challenges of the technologies involved, putting such technologies to the test in an extreme environment.'

If the race for the overall victory had been a war of attrition, the GTE Pro class was a full-on, twenty-four-hour battle between all five works teams. A tense showdown between the green Aston Martin of Jonny Adam, Daniel Serra and Darren Turner and the yellow Corvette of Jordan Taylor, Jan Magnussen and Antonio García reached its climax when Adam and Taylor left the pits nose to tail with forty-five minutes to go. As they began their last lap, the Aston swept past the Corvette just before Taylor pulled in with a puncture suffered half a lap earlier when his car banged against the side of the Aston in a repassing manoeuvre coming out of the Mulsanne corner. A Ford GT from the Ganassi UK team came by to take second place from the Corvette, with the first works Porsche and the first official Ferrari, entered under the AF Corse banner, only a lap further back.

This battle was probably as close to the original essence of Le Mans as you could hope to get in the twenty-first century: five cars from five proper manufacturers, two American and three European, all resembling models available to drive on the road, with the balance of performance calculations providing what looked very much like a level playing field. Best of all for spectators was the polyphonic interplay of five different voices: the baritone crackle of the Fords, the suave roar of the Ferraris, the rasp of the Astons, the bellow of the Corvettes, the hard scream of the Porsches.

Fernando Alonso was the major talking point ahead of the 2018 race, while in the background LMP1's death warrant was being signed. Talks between the FIA, the ACO, the representatives of ALMS and interested teams were devoted to coming up with a replacement formula that would greatly reduce costs and attract manufacturers back into the top category at Le Mans and the other rounds of the endurance racing championships in Europe and the US.

As those talks made quiet progress, Alonso appeared on the scene to give the 24 Hours a timely boost.

Two years earlier, in the middle of another disappointing season in the difficult second half of his Formula 1 career, the double world champion had responded to questions about the level of his desire to continue in the sport by musing on what remained to be done. 'I'd like to achieve the triple crown one day,' he said. 'The Monaco Grand Prix, which I've won already, then the Indy 500 and Le Mans 24 Hours. If I'm happy and motivated still, maybe that can be my challenge.' There is no official triple crown, but the term was used to describe the feat of winning the three most widely renowned motor races, each run to a different formula, only previously achieved by Graham Hill, five times a Monaco winner between 1963 and 1969 and the winner at Indianapolis in 1966 and Le Mans in 1972. And now Alonso was finally on the grid.

He had competed in the Indy 500 for the first time in 2017, leading the race before retiring with engine failure. His hopes for Le Mans were high, given that he had a seat in a works Toyota TS050 Hybrid and that the opposition looked thin enough to persuade the team that their run of disasters at the Circuit de la Sarthe might be over.

Porsche had followed Audi out of LMP1 after collecting their nineteenth victory, the third in a row for the 919 Hybrid. Instead, they were putting their efforts into GTE Pro, hoping to restore the 911 RSR to its former standing in the most intensely competitive of the four classes at Le Mans. Porsche GT Racing, the works team run by Olaf Manthey, entered two cars in livery that, with the exception of Alonso's participation, attracted more comment than anything else during the week. Both were wearing paintwork mimicking that of famous Porsches from earlier eras of success: the aesthetically outrageous 'Pink Pig' 917 of 1971 and the more restrained but equally distinctive Rothmans livery worn by the 956s and 962s in the 1980s (albeit without the cigarette company's name).

For Alonso, there were plenty of familiar faces on the grid. Among those he had raced against in F1 were Jenson Button, Juan Pablo Montoya, Pastor Maldonado, Paul Di Resta, Giancarlo Fisichella and Vitaly Petrov. He had started his Toyota career well a few weeks earlier with a win at Spa alongside Sébastien Buemi and Kazuki Nakajima, who would be his co-drivers at Le Mans, and it was Buemi who was in the cockpit as the starter's tricolour was lowered by Alonso's compatriot Rafael Nadal, who had travelled down from

Paris after winning the French Open tennis tournament for the eleventh time the previous weekend.

Hugues de Chaunac, who had suffered so much in Toyota's cause, was no longer in their garage. Their fortunes were now being guided by another Frenchman, Pascal Vasselon, who had previously worked with Toyota's F1 team. The two Japanese cars made a show of it in the early stages, Buemi swapping the lead with the English driver Mike Conway. When Alonso replaced Buemi for his first stint, he appeared to reverse in the pit lane in order to give himself room to get around a car stopped just ahead of him, which would have meant disqualification had the stewards not been persuaded by Vasselon's argument that the car had been pushed back legitimately by the team's mechanics. In the fourth hour Alonso took the lead from José María López in the other Toyota. López repassed but was ordered by the team to let Alonso go by again.

It appeared to be a proper fight when, after the next driver change, Kobayashi overtook Buemi, and the hours of darkness ended with Alonso two minutes behind López. But soon after Kobayashi and Nakajima took over, the positions were reversed. Kobayashi lost time after missing the pit entrance, having to complete the extra lap at much reduced pace in order not to run out of fuel. Nakajima saw out the race in the winning No. 8, applauded from the pit wall by Buemi and Alonso, his teammates. The No. 7 car, with Kobayashi at the wheel for the closing stint, was two laps behind. The PR value of having two Japanese drivers finish off Toyota's long-awaited victory clearly trumped the possibility of having Alonso in the winning cockpit at the end.

Given the number of years the company had been trying to win the race, and the tears shed during their failures, no victory such as this could be thought of as hollow. But there had been no competition for them. De Chaunac's consolation came with third and fourth places for two entries built in his Oreca workshops: the LMP1 Rebellions, the car of Thomas Laurent, Mathias Beche and Gustavo Menezes taking the final place on the podium, a dozen laps behind the Toyotas.

Again the closest and most compelling racing came from the GTE Pro cars, where the 'Pink Pig' – driven by Michael Christensen, Kévin Estre and Laurens Vanthoor – edged out its sister car, the 911 in Rothmans livery. Porsche made it a double with victory in the GTE Am class for a car entered by Dempsey-Proton Racing, giving Patrick Dempsey, now fifty-two and retired from the

cockpit after finishing second in the class in 2015, an opportunity to mount the podium at Le Mans and hold a trophy aloft as a proud entrant.

Tracy Krohn crashed his Porsche 911 RSR in practice for the 2019 race and was taken to the Centre Hospitalier du Mans, where doctors advised the 64-year-old Texas oil baron not to race for a week. Bits of the car, entered by the Dempsey-Proton team but painted in Krohn Racing's colours of lime green with blue stripes, were littered across the Mulsanne straight and the session was halted for almost an hour. He had started his company with \$12,000 in 1983, drilling in the Gulf of Mexico, and twenty-three years later he was named in *Forbes* magazine's list of the 400 wealthiest US citizens. This would have been his fourteenth appearance at Le Mans.

His car would not be among the record number of sixty-one on the grid when, in the presence of 252,000 spectators, Princess Charlene of Monaco waved away the start of another Toyota flag-to-flag victory parade, a repeat win for Alonso, Buemi and Nakajima. This time the No. 8 car finished a mere seventeen seconds ahead of the sister TS050 Hybrid of Conway, Kobayashi and López, with the Russian-built BR-Gibson of Mikhail Aleshin, Vitaly Petrov and Stoffel Vandoorne six laps adrift in third place.

The FIA and the ACO had paid a great deal of attention to adjusting the balance of performance restrictions, raising the hybrids' minimum weight and increasing the fuel flow of the non-hybrids in an attempt to bring them closer together. The results from the qualifying sessions, in which Kobayashi again set the pole position time, suggested that the rest could now get within a second of the Toyotas over a single lap, but after Gustavo Menezes in a Rebellion had the temerity to push Buemi briefly back to third place on the opening lap, the battle for overall victory again became a contest between the two white, red and black Japanese cars.

The race was interrupted by several applications of a new safety protocol, a full-course yellow replacing slow zones, but nothing could hinder the progress of the Japanese cars except, briefly, their own indiscretions, first when López went off in the No. 7 car at the Mulsanne corner at dusk, handing the lead to Nakajima in the No. 8, and much later on when López, having regained the lead, was brought in with an hour to go after a sensor had alerted the pit to a deflating right front tyre. Just that one tyre was changed, but the car quickly

returned to the pit. The sensor had been faulty: it was the left rear that was suffering a slow puncture. In the time it took to mount a full set, the lead was lost. With twenty minutes to go, the issue was settled by an exchange of radio messages. 'We are P1 with a 23-second gap and the situation is under control,' Nakajima was told by his race engineer. From the next pit the pointed message went out to López: 'Please bring your car home.'

The fight among the LMP2s was for a second time won by the Signatech Alpine of Nicolas Lapierre, Pierre Thiriet and André Negrão, but once more the really engaging battles were among the GTs. The new Aston Martin Vantage, works-entered but painted in an unfamiliar lime green, had been the fastest of the GTE Pro cars in qualifying, ahead of the Ford GTs, Corvettes, Ferraris, Porsches and BMWs. But all three Astons suffered from accident damage and two Fords were disqualified after the race when their petrol tanks were found to be a tenth of a litre over the permitted capacity. In the end the class went to the works-supported AF Corse Ferrari 458 of James Calado, Alessandro Pier Guidi and Daniel Serra, a suitable way to celebrate the seventieth anniversary of Ferrari's first victory at Le Mans.

CHAPTER 23

Empire of the sun (2020–22)

The first death in France from Covid-19, on 14 February 2020, was that of an 80-year-old Chinese tourist in a hospital in Paris. Within hours of the start of the first nationwide lockdown on 17 March, the Automobile Club de l'Ouest announced the postponement of the 24 Hours from its traditional mid-June date to the third weekend of September. According to the club's president, Pierre Fillon, the ACO had been anxious not to cancel it altogether, aware that many teams built their season around a race with unique publicity and promotional value for their parent companies and sponsors. So it went ahead, but under special conditions.

The first steps towards ending the lockdown in France were taken on 11 May, which many thought premature. At that point the country had registered 26,000 deaths from the virus, and 65 per cent of French people indicated in a poll published by *Le Parisien* that they would prefer to adopt a cautious approach rather than a swift return to normal life. In June the ACO announced that a limited number of spectators would be allowed to attend the race in September, divided into segregated 'fan villages', but by August the rising infection figures had persuaded them to abandon that plan. The race would be held behind closed doors.

A maximum of 5,000 people would be present, all in a working capacity, made up of the organisers and their personnel, the teams, the marshals, the medical staff and the media. Each team would be in a bubble of its own, all required to produce negative-test certificates, with the wearing of masks

compulsory. For the absent spectators, the entire race would be broadcast live on Eurosport and the ACO's own YouTube channel.

Six LMP1 entries, twenty-four LMP2s, eleven in GTE Pro and twenty in GTE Am were present and correct in time for practising and qualifying on the Thursday and Friday and for the start of the race on Saturday, brought forward to half past two in the afternoon because of the earlier nightfall, which also meant an extra two hours of darkness for the teams to negotiate. Among the drivers of the two 980bhp Toyota TS050 Hybrids, the only change from the past two winning years was the absence of Fernando Alonso. The Spaniard had found another challenge, devoting several months to training for the 2020 Dakar Rally in a factory-entered Toyota, to be followed by a third attempt to win the Indy 500. His replacement was Brendon Hartley, a winner with Porsche in 2017.

Under a new format, all cars were required to set qualifying times during a session on Thursday afternoon. On Friday morning the fastest half-dozen in each of the four classes would have half an hour to compete in a series of Hyperpole shoot-outs. Those six would then be placed on the grid ahead of the remainder of the cars in their category, with each class in order: LMP1 followed by LMP2, GTE Pro and GTE Am.

In the absence of the usual signs of festivity – no scrutineering and drivers' parade in the city centre, no big wheel, no fan village, no fields full of tents and camper vans – the 24 Hours of Le Mans prepared for its eighty-eighth edition, entitled to view itself as a symbol of life continuing amid a bewildered and fearful world. The only people licensed to remove their masks were the tenor who took his place on the starting line to sing the Marseillaise with great emotion, the brass and woodwind players in the military band that accompanied him, and Bruno Vanderstick, the race announcer, who stepped up to the microphone under a grey autumnal sky to give the command: *'Pilotes, démarrez vos moteurs!'*

By the standards of what had become the Toyota era, Gustavo Menezes had achieved something remarkable: the young driver from Los Angeles and his Rebellion-Gibson R3, a non-hybrid LMP1 car, had split the two Japanese cars on the grid. Kamui Kobayashi again set the pole position time in the No. 7 car, in which Mike Conway would start the race. Then came Bruno Senna in the car qualified by Menezes, followed by Sébastien Buemi in the No. 8 Toyota, whose qualifying time had been set by Kazuki Nakajima. Instead of the

customary tricolour smoke-laying of the Patrouille de France, a pair of French Navy Rafale fighters performed a fly-past before the cars moved away for the warm-up lap on a track still slightly damp from earlier rain, flanked by deserted grandstands and enclosures.

Senna gave it a go at the front, challenging Conway as they went through the first sweeping right-hander, but had to concede the corner. He hung on to second place ahead of Buemi for nine laps, but by the end of the opening hour the Toyotas were first and second. A ten-minute stop during the night for repairs to the front brakes put the No. 8 car more than a lap down on the leader, but before dawn the No. 7 car slowed as Kobayashi felt a loss of power. He brought the car into the garage, where half an hour was spent changing the turbocharger and exhaust system on one side of the engine.

By the time the car returned to the race, it was behind not just its sister car but the two Rebellions, driven by Menezes and Romain Dumas – who, to the barely suppressed exasperation of their management, were battling each other for second place. When Louis Delétraz took over from Dumas with two and a half hours left, he was delayed by a worn clutch and then by a collision with the barrier at Indianapolis, allowing the No. 7 Toyota to slip into third place. And that was how they finished, saluted only by the flag-waving marshals and the members of their own teams, Nakajima taking the chequered flag for the third year in a row ahead of the Rebellion of Menezes, Senna and Norman Nato, with the No. 7 Toyota third.

Two all-female crews started the race, and both finished. An Oreca sponsored by the watchmaker Richard Mille was driven into thirteenth place overall and ninth in LMP1 by Tatiana Calderon of Colombia, Beitske Visser of the Netherlands and Sophia Flörsch, a 19-year-old from Bavaria. Flörsch's horrifying 170mph crash in a Formula 3 car at the Macau Grand Prix two years earlier had been seen around the world, followed by a recovery from an eleven-hour operation on her spinal injuries. Rahel Frey, Michelle Gatting and Manuela Gostner brought their pink Ferrari 488 into thirty-fourth place overall and ninth in GTE Am.

For Aston Martin, there was a double victory to follow two disappointing years with the Vantage AMR and its Mercedes engine, provided under a deal for the supply of the German company's power units and electric drivetrain technology made in 2013. The Prodrive-run works entries took first and third places in the GTE Pro class, split by an AF Corse Ferrari in a field devoid of

Corvettes, Fords or BMWs, with Alex Lynn, Maxime Martin and Harry Tincknell in the winning machine. A similar car entered by TF Sport won the GTE Am category, co-driven by Jonny Adam and Charlie Eastwood with Salih Yoluç from Istanbul, the first Turkish driver to achieve a class win at Le Mans.

These successes provided a certain amount of cheer for Aston Martin, coming a year after the company's disastrous flotation on the London Stock Exchange, in which their seriously overvalued shares eventually plummeted to 5 per cent of the offer price while the company's debts mounted. They also followed the sudden departure a few weeks earlier of the company's chief executive, Andy Palmer, an ex-Nissan man who had encouraged the racing programme, endorsed the building of a mid-engined hypercar designed by the F1 genius Adrian Newey, and initiated an SUV project intended to do for the perennially troubled company's fortunes what the Cayenne had done for Porsche. Palmer's exit came soon after the arrival of a Canadian rag-trade billionaire named Lawrence Stroll, at the head of a consortium buying a large proportion of the company's shares and launching a new rights issue to raise £500 million. As Covid struck, it was announced that 500 jobs would be cut. Class victories at Le Mans would not bring those jobs back in the short term, but they were a sign that some vital element of Aston Martin's genetic code was still alive and functioning, exactly 100 years after Lionel Martin's company had first been rescued by the injection of an American heiress's millions.

France's death toll from Covid-19 had passed 75,000 by the time a third lockdown was imposed in April 2021, to last a month. From July, a *passe sanitaire* was compulsory for entrance to shops, cafés, bars and restaurants, and on all forms of public transport. Spectators would be allowed back for the 24 Hours, to be held on 21-22 August, but in limited numbers: there would be only 50,000 of them, a fifth of the usual number, and they would be kept away from the competitors in the paddock. Entry would require a government vaccination passport, a negative lateral flow test taken in the preceding forty-eight hours, and the wearing of a face mask.

The lucky 50,000 would witness the debut of the new class of Le Mans Hypercars, replacing LMP1 as the top sports prototype class in an attempt by the ACO and the FIA to reduce costs – which had risen to around €100 million a season for manufacturer teams – and speeds while retaining glamour

and a connection with everyday motoring, or at least the sort of everyday motoring enjoyed by the ultra-wealthy. The Hypercars would either be bespoke machines, new from the ground up, or based on cars of which at least twenty road-legal versions had been produced over a two-year period.

Engines would be four-stroke petrol units of unrestricted design (no diesels), and manufacturers who chose to use hybrid power would be restricted to a single kinetic energy recovery unit of limited power operating on the front axle alone, activated only above certain speeds – 120kph (75mph) on dry tyres, above 140kph (87mph) in wet conditions – in order to curb the low-speed torque that, if unrestricted, would put them out of range of non-hybrid rivals. Total power output would be kept to 670bhp. The minimum weight would be 1,030kg and the aerodynamic performance would also have to fit within specified parameters, although manufacturers would be encouraged to use bodywork incorporating ‘styling cues’ from their road cars.

Once homologated, the cars’ specifications would be fixed for five years, with only limited modifications permitted. For the first two seasons of the formula, existing non-hybrid LMP1 cars could be ‘grandfathered’ into the new LMH category through a reduction in engine power and an increase in weight. Eventually there would also be a second and less expensive class, LMDh (Le Mans Daytona hybrid), to replace LMP2, aimed principally at the American Le Mans Series, for cars based on chassis from four designated constructors (Oreca, Ligier, Dallara and Multimatic), all using specified hybrid systems, gearboxes and tyres, with performance adjusted to enable them to compete directly with the Hypercars. Several established manufacturers had indicated their interest in the idea of racing on reduced budgets, including Porsche, Toyota, Ford, Peugeot, Cadillac, Lamborghini, Honda’s Acura, BMW, McLaren, Aston Martin and Ferrari.

Then there was James Glickenhaus, whose arrival in 2021 with his two entries in the Hypercar class was a reminder of Briggs Cunningham’s advent in 1950 with his pair of Cadillacs. But whereas Cunningham came from old money, the seventy-year-old Glickenhaus was from a different school. A New Yorker, he had spent the 1980s and ’90s making his fortune as the writer, director and producer of exploitation movies with titles like *The Exterminator* and *Slaughter of the Innocents*. At the start of the new millennium, bored by the film business, he had gone to work for his father’s Wall Street investment firm. His love of endurance racing had led him to buy a new Ferrari Enzo with the

idea of commissioning Pininfarina to rebuild it into a modern version of the P4s coupés of the 1960s, one of which he had in his collection. The bill came to around \$4 million, and Ferrari liked it enough to allow him to call it the P4/5. But when they refused to sell him the parts he needed to build a version for racing, he found a way around their ban and built it anyway, racing his P4/5 Competizione at the Nürburgring in 2011.

His ambition fired, he developed plans for a company making limited-edition supercars and a version with which he could enter Le Mans at the highest level. Commissioning an engine from the French manufacturer Pipo, with a chassis designed by a group of young engineers at Podium Advanced Technologies in Italy, Glickenhaus created something he called the 007: a LMH car with a non-hybrid 3.5-litre twin-turbo V8 and a look that, while not being retro, contained pleasing echoes of the classic Ferraris he loved. It would also provide the basis for the road-going version, the 007S: a \$2.5 million, three-seater version 'able to drive up to the track, do 100 laps and drive home', of which he planned to build twenty-four examples. To run his team of two red and white cars at Le Mans, Glickenhaus enlisted the help of Joest Racing, whose experience included no fewer than fifteen wins with Porsche and Audi.

When qualifying got under way, it became clear that the lap times of the Hypercars were ten to fifteen seconds down on those of the old LMP1 prototypes, which was just what the ACO wanted. The pacesetters were Toyota's new GR010 Hybrids, based – as the ACO had intended – on a prototype road car, the Toyota GR Super Sport Concept, shown at the Tokyo Motor Show in 2018. Kamui Kobayashi put the Japanese team's No. 7 car on pole position – his fourth in all, and his third in a row.

Heavy rain meant the race started with two laps behind the safety car before the field was released. A Glickenhaus made an unfortunate impact straight away when Olivier Pla missed his braking for the first corner and tipped Sébastien Buemi's Toyota into a spin. Buemi resumed but had to stop halfway round the lap to restart the car's electronic systems. He would work his way back up to second place during a race in which rain came and went, contributing to the accidents that kept the safety car drivers and the marshals occupied.

A Toyota one-two looked entirely predictable, and that was how it turned out, with the No. 7 car finally overcoming its hoodoo to present Kobayashi, Conway and López with a win after two second places and one third in the

previous three years. Kobayashi had begun to think he would never succeed, and that he would go down in the race's history only for his series of pole positions. But the team's race was hardly uneventful.

A fuel-flow problem, caused by polyurethane particles mixing with grease and clogging the fuel filter, affected both cars during the second half of the race, gradually reducing the gap between pit stops from thirteen laps to three. Heads were scratched in the pits before the first of two remedies was devised, requiring the drivers to unblock the filter by switching off the fuel pump while braking hard and then switching it on again. They had to do this six times a lap, while slowing and changing down through the gears and turning and accelerating and changing up again. The second solution, less stressful for the men in the cockpit, was a software rewrite that had to be transmitted to the team's base in Cologne and checked before being installed. Had there been Audis or Porsches to challenge them, the Toyotas would have been toast.

All five Hypercars finished the race as they had started it, in the first five positions, with an Alpine – originally built by Oreca as a Rebellion and driven by Nicolas Lapierre, André Negrão and Mathieu Vaxivière – in third. The two Glickenhaus entries were fourth and fifth, just about respectable for a debut against experienced rivals. In LMP2, a pair of the WRT team's Oreca appeared to be heading for a one-two finish until the start of the very last lap, when the 21-year-old Chinese driver Ye Yifei stopped on the track with an unresponsive throttle. The car could not be restarted, meaning that after 362 laps it was unable to qualify as a finisher. Robin Frijns in the sister car went through to claim the class win, dodging through a gaggle of cruising GT cars at undiminished speed just before the finish line in order to hold off a pursuing Jota and very nearly taking out the man with the chequered flag.

Of the sixty-one cars that started the race, forty-four qualified as finishers. In forty-second place was a Porsche 911 co-driven by Dominique Bastien, in his second Le Mans at the age of seventy-five years and 269 days, setting a record for the oldest driver both to start the race and finish it, beating the previous record by seven years. Born in Dunkirk in 1945, he had emigrated with his parents to the US. Eventually he started a business, a packaged food company worth \$155 million when he sold it in 2014. As a bronze-rated driver, sharing the car with two professionals, he limited his time at the wheel to six hours and drove only in the daylight. In 2021 he was certainly the only

competitor in the field who could remember listening with his parents, at their home in France, to radio reports of the 1955 disaster at Le Mans.

After two years' absence, the *Parade des pilotes* returned in 2022 and was greeted with immense enthusiasm. From serial winners to obscure amateurs, the drivers tossed hats, T-shirts, sweets and wristbands to delighted spectators. A celebrity newcomer was the German-born Irish actor Michael Fassbender, the star of *X-Men* and *12 Years a Slave*, now ready to take the wheel of one of Patrick Dempsey's Porsches after an apprenticeship in endurance racing chronicled in a YouTube series called *Michael Fassbender: Road to Le Mans*.

The parade was led by Henri Pescarolo at the wheel of a Matra Djet, designed by René Bonnet and raced at Le Mans in the mid-'60s as the Bonnet Aérojet. Pescarolo's car was in French police livery, one of three Gordini-engined Djets bought in 1966 for use by the *Brigade rapide d'intervention* before being replaced when they proved to be impractical. Other attractions on the parade included a pipe and drum band, a parade of supercars, including the latest from Bugatti, Ferrari, Lamborghini and Maserati, and a parade within a parade representing seven generations of Chevrolet Corvettes, a car with a history at Le Mans going back to 1960.

The following afternoon, Jacky Ickx and Tom Kristensen – the original 'Monsieur Le Mans' and the man who usurped his title, with fifteen wins between them – were giving interviews in front of the grandstands as VIPs and other guests milled around the cars. The tennis star Jo-Wilfried Tsonga, who had retired from the sport during the French Open earlier in the month, was explaining how, despite being a native of Le Mans, he had never managed to visit the race before. Sébastien Bourdais, another *Manceau*, drove a lap in the ACO-sponsored Mission H24 prototype, a glimpse of a hydrogen-powered class planned for inclusion in the race in 2025. Officials of the ACO solemnly presented a member of the AF Corse team, running the works Ferraris in the GTE Pro class, with an award for 'waste reduction, plastic reduction, social inclusion and diversity'. The Marseillaise was sung and the Patrouille de France flew their Alpha Jets low above the pits straight, laying trails of red, white and blue smoke.

A record sixty-two cars were starting the 2022 race, and a record fifty-three of them would qualify as finishers. Six were eliminated by damage from

accidents or punctures and only three by mechanical failures. At any hour of the day or night, the 240,000 spectators had never to wait more than a few seconds before another car or bunch of cars came past their vantage point. The eight-mile track was almost as crowded at four o'clock on Sunday as it had been at four o'clock on Saturday. At that point it was hard to imagine what the experience of the crowd in 1931 must have been like, watching the closing stages of a race with only six surviving cars on what was then a ten-mile circuit.

If the object of the race was always to improve the durability of the modern car as well as its speed, then perhaps this was a sign that the job has been done. But it might simply be that framing the rules so tightly – standardising many elements of design and marginalising experimentation with the aim of both reducing costs and improving competition – makes it easier to develop racing cars that are, in effect, bomb-proof. Combine that with such features as tractor-assisted retrieval from gravel traps and the greater freedom to replace damaged components, and surely more finishers must equal happier competitors and happier spectators. Or maybe not, if the net result is to remove many of the elements – most obviously luck, mechanical and human, good and bad – that made endurance races unpredictable and compelling.

In 2022 the LMP2 class provided the perfect illustration of the tendency taken to its extreme: a category created to ensure full and closely competitive grids, requiring entrants to use a chassis sourced only from certain manufacturers and a single type of engine. Oreca were supplying chassis to all but one of the entrants, the sole exception being an uncompetitive Ligier. So twenty-six of the twenty-seven cars – almost half the grid – were, except for their paint schemes, identical. Not surprisingly, the top two LMP2 finishers were on the same lap after twenty-four hours, while four laps covered the top ten in the class. Still exciting for the competitors, of course, but it could be seen as a denial of much that had made Le Mans special. Looking the same, behaving the same, performing much the same, they made it seem dangerously like just another motor race, only longer. An Oreca entered by the British-based Jota team won the class, and no doubt its drivers and crew worked as hard for their success as anyone.

The two Toyotas came first and second overall, as expected, securing a fifth win in a row for the Japanese manufacturer's competitions division. Brendon Hartley had secured pole position for the team and took the final stint to

celebrate his third win, sharing the podium with Sébastien Buemi, a winner for the fourth time, and Ryō Hirakawa, a product of Toyota's young driver programme, in his first appearance at Le Mans. Their GR010 Hybrid covered 380 laps, or 3,214 miles, finishing two minutes ahead of its sister car. Once again the No. 8 had beaten the No. 7: the natural order had been restored. The team's technical director, Pascal Vasselon, could celebrate, albeit in the knowledge that this looked like being the last year of relatively easy triumphs. Behind the Toyotas came the two Glickenhaus 007 LMs, respectively five and ten laps in arrears.

In tenth place came an Oreca co-driven by Josh Pierson from Portland, Oregon, sixteen years and four months old, becoming the youngest driver ever to compete at Le Mans. After a couple of spins, the 45-year-old Michael Fassbender finished fifty-first in his Porsche. Two places further back, and the last of the finishers, came the very model of the type the French still refer to as *le gentleman-driver*: Pierre Ehret, sixty-five years old, a proprietor of vineyards in Sonoma County, Northern California, his Ferrari 488 crossing the line fifty-six laps – or 473 miles – behind the overall winners. If the victorious Toyota had covered the distance from Paris to Tehran in the twenty-four hours, Ehret's Ferrari would still be somewhere in Armenia when the chequered flag was waved.

CHAPTER 24

Nightfall

Invited to write his impressions of the 1934 race for Georges Durand's *Revue des Usagers de la Route*, the novelist Marcel-Étienne Grancher noted that it had become a setting for pleasant social gatherings. He described how, during the night, he went to watch the cars at the Mulsanne corner but found himself drawn into a different kind of activity: 'In a clearing, to the sound of a gramophone, we dance the slow foxtrot. The cars rumble past on a road swept by the blue brush of the spotlights. In the illuminated grandstands, beautiful visitors peel crayfish, little fingers in the air... The air smells of blond tobacco, of Jicky [a perfume by Guerlain], of racing oil... Ah, precious atmosphere of the 24 Hours!'

The sounds and smells are different in 2022, but history is all around. Almost two and a half hours into the race, those listening to Radio Le Mans on their headsets hear the commentator announce that he will be observing a silence for eighty-four seconds at twenty-five minutes past six, as a way of remembering the terrible moment on another 11 June, the moment in which eighty-four people died.

As night begins to fall on the race, gradually erasing the strokes of pale pink painted by the setting sun on the wisps of cloud in the china-blue sky, the full magic of Le Mans reveals itself once again. From a vantage point on the outside of the entry to Tertre Rouge, the competitors can be seen cresting the brow under the distant Dunlop bridge, headlights on, before dropping out of sight and re-emerging from the *Esses de la forêt* to hurtle towards the zone where a combination of downshifts, braking and throttle serves to balance a

car for the apex of the right-hander, followed by the kink that opens up the straight.

Spectators protected by Armco barriers and chain-link debris fencing can see them twitch over a tiny bump at the turn-in point and sense the lateral force as they push against the camber. The dusk seems to sharpen the differences between the engines' voices, most notably the near-hysterical scream that makes the Porsches sound the most like you'd expect racing cars to sound, despite looking the most like the road cars whose ancestry they share. Even the identical intonation of the many LMP2 cars, each of them popping and banging on the overrun, seems like a proper racing sound before becoming tiresome, like the exhaust crackle of a boy racer's Subaru on a Friday night in the suburbs.

As midnight approaches, from the top of the opposite bank, next to the marshals' post 19, there is an even more vivid evocation of the race's history in the sight and sound of the drivers getting back on the throttle as they straighten up to follow the line of the plane trees guarding the outside of the track, now in full leaf, the most noble and enduring of the circuit's landmarks, before disappearing into the distance, the last upshifts just audible before the cars are swallowed by what remains of the ancient pine woods.

The following afternoon, while the surviving competitors tour round on their lap of honour, the marshals are warmly applauded by the crowd as they come out from behind the barriers to form a flag-waving guard of honour. Soon the fans, too, are flocking onto the track, making their way towards the finish line like pilgrims towards a shrine. And while champagne is being sprayed from the elevated podium in the manner invented by Dan Gurney more than half a century earlier, it seems worth revisiting a less obvious trace of the race's heritage.

To leave the circuit on foot by the northern exit and walk towards Le Mans on rue de Laigné is to take the same road along which the first competitors raced in 1923, a dead-straight climb past one of the city's six cemeteries and then down the long descent towards Pontlieue. What was once a country road is now lined by the modest houses of working people and the occasional hairdressing salon, *tabac* or bar – including one called Au Bugatti, with appropriate photographs lining the walls. The rue du Circuit is still there, created in 1929 to cut off the famous hairpin following protests by the residents. For three years it provided a short cut between the northbound and

southbound legs before the circuit retreated in the face of growing urbanisation and was definitively shortened to its present layout. The Pontlieue hairpin, such a favourite with early photographers, can still be made out; what was once the return leg of the circuit, heading towards Tertre Rouge, is now Avenue Georges Durand.

The memories of Le Mans are everywhere, its relics increasing in value amid the overheated bidding of the classic car market, where anything with Le Mans in its history automatically leaps in value. One of the three Chevrolet Corvettes that Briggs Cunningham brought to the Sarthe in 1960, lost to sight for fifty years, was discovered in Florida in 2011, its top sliced off, its body reshaped and painted purple, its original engine replaced by a Pontiac V8. Said to have been used in local drag racing, it was auctioned in 2021 for \$685,000, plus fees, a judge dividing the proceeds between the several parties who had spent a decade disputing ownership. In 2017 the Gulf-liveried racing suit worn by Steve McQueen during the filming of *Le Mans* changed hands for £247,000 (and when you book a hotel room in the city today, you might find a still from the movie – the one in which he’s standing beside his Porsche 917 in the pits, giving a V-sign to a rival – mounted above your bed).

The survival of the race into the twenty-first century might surprise Georges Durand, Émile Coquille and Charles Faroux, but they would have no trouble recognising it. Perhaps they would appreciate, too, the challenge confronting their successors as the future of the automobile comes under threat in the face of global warming, at a time when we may have reached what some have called ‘peak car’, a phenomenon likely to occur at different rates and with different intensities in different parts of the world. Whether the race can continue with a sense of responsibility to anything other than the prosperity of the motor industry and the city of Le Mans remains to be seen. It has to work out how to respond to views like that of the Hollywood actor Matthew Modine, answering a question about climate change at the end of 2022, a year of terrifying floods, fires and droughts around the world: ‘One of the things that has to stop is motor sports – you know, motorcycles and cars going around a racetrack, travelling all over the place. It’s a crime, not a sport. There’s no place for it in a world where the climate is under threat.’ Le Mans faces the challenge of reconciling societal imperatives that can no longer be ignored with the continuing desire to watch competition between the latest dream machines.

The ambition of the new Hypercar era is to reintroduce spectacle and variety. From a purely sporting perspective, the task for the rule-makers is to frame regulations that limit manufacturers' costs without imposing design parameters so strict that they eradicate variety and the product of original thinking. In technological terms, Le Mans has never been afraid of a challenge, providing an environment in which the possibilities of front-wheel drive, diesels, gas turbines, disc brakes, hybrid power units and fuel made from root vegetables could all be explored. But the biggest challenge of all may be the sound of silence.

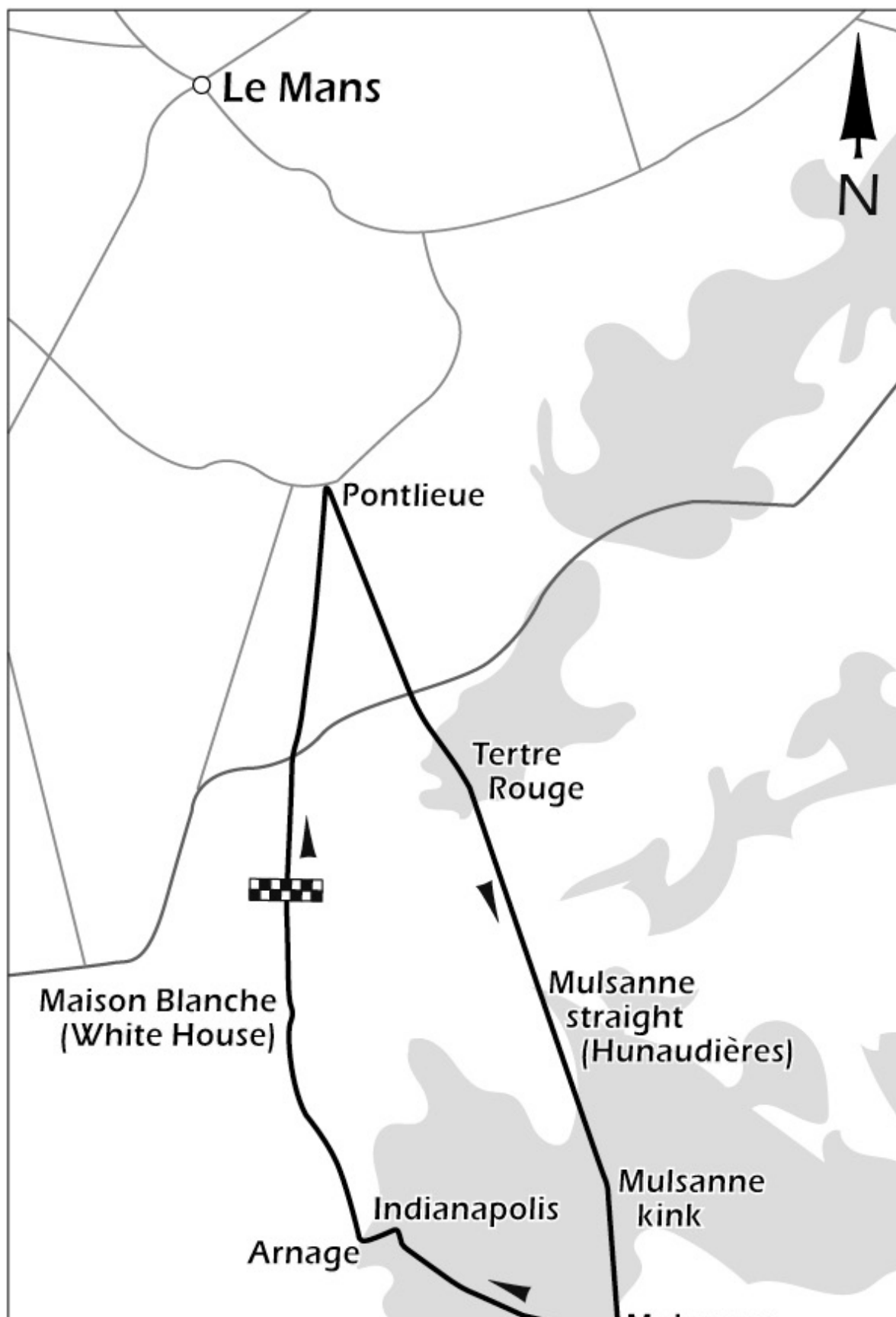
Can a racing car really be a racing car if it makes no noise? The view of Dr Ulrich Baretzky, the head of Audi Sport's engine department throughout their time at Le Mans, is worth hearing. 'Sound – noise – is energy,' he has said. 'The less you hear, the more you use for propulsion.' Look at the people in the grandstand, he added. 'They're only old people. In twenty years' time they'll all be dead, and who is going to be in the grandstand then? We're missing the young people, and we have to ask them what they really want to hear. Do they want to sit in a grandstand being deaf after one hour, or do they want something else? Maybe the sound is nothing for them.'

In 2017, a plan was briefly advanced to make all hybrid cars coming out of the pits at Le Mans complete an initial lap on electric power only. The Mission H24 prototype, in which a hydrogen energy cell powers four electric motors, giving it a top speed of 180mph, is an ACO-sponsored project; it has the dramatic looks of a Hypercar while making nothing more than the kind of whistling sound now expected from electric vehicles. Perhaps, on the streets of London and other cities around the world, the silence of an all-electric Porsche Taycan is now cooler than the bark of a Lamborghini V12, and perhaps that appeal can be transferred to the race track. If, that is, the exploitation of the earth's resources to make batteries and other components for electric cars remains acceptable, and the idea of using up those resources, too, on something as frivolous as sport does not put motor racing so far beyond the pale as to threaten its existence. If it does indeed one day become extinct, at least Le Mans can point to a history of trying to find creative and constructive responses to the challenges, ranging from Georges Durand's efforts to improve road surfaces to his successors' introduction in 2022 of a discounted 'green ticket' for spectators who travel to the race by public transport.

Those thirty plane trees lining the exit of Tertre Rouge have heard and seen it all, standing there since the days when the drivers had no helmets, flameproof race suits or safety harnesses and were required to erect hoods, do the refuelling themselves and dig their cars out of sandbanks with shovels. The trees have witnessed a hundred years of history and a hundred years of adaptation to a changing world. No knowing what they'll see in the next hundred.

APPENDIX 1

Race Circuits 1923–2022



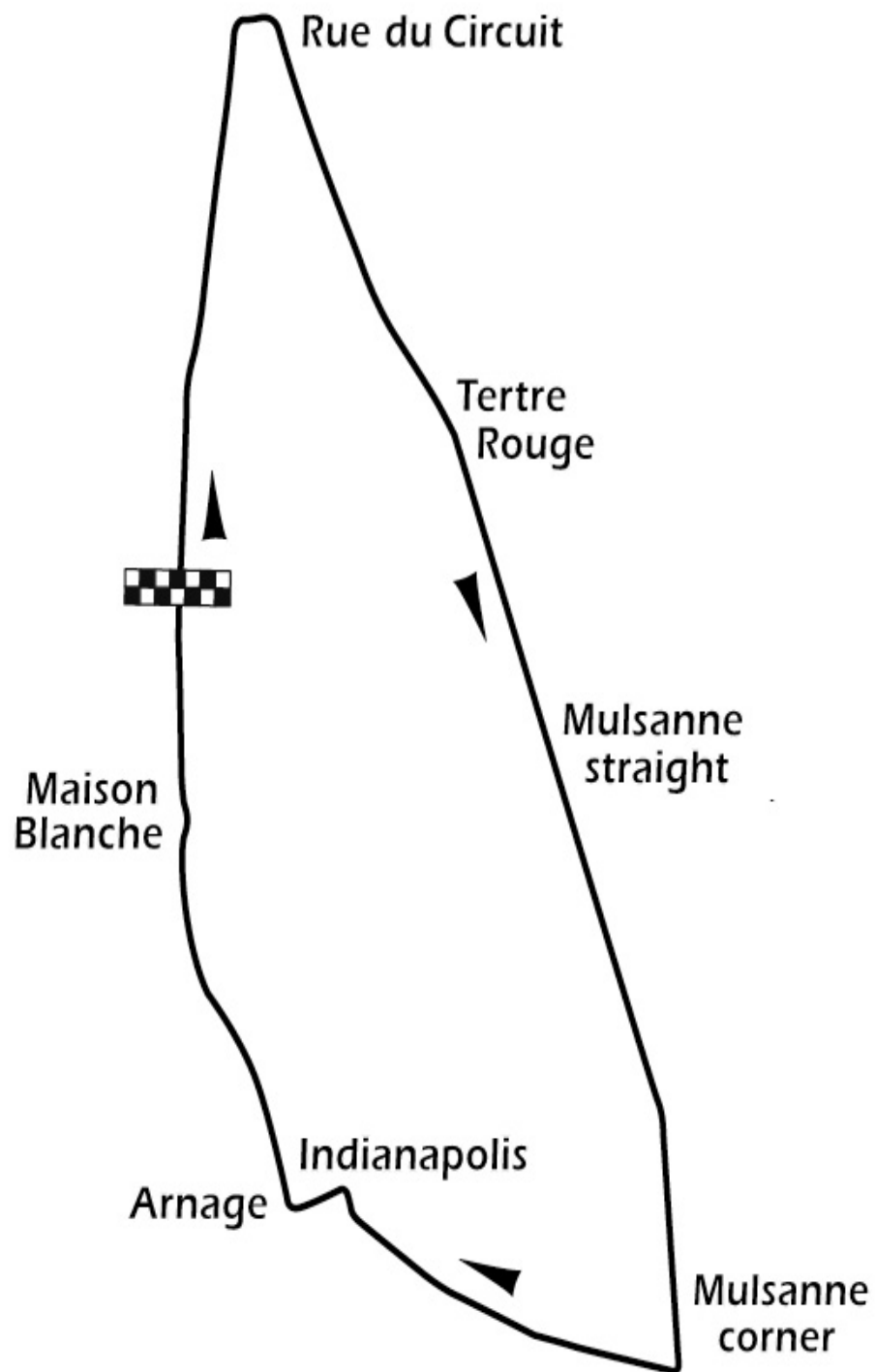


Circuit des 24 Heures de la Sarthe 1923-28

17.262km / 10.726 miles

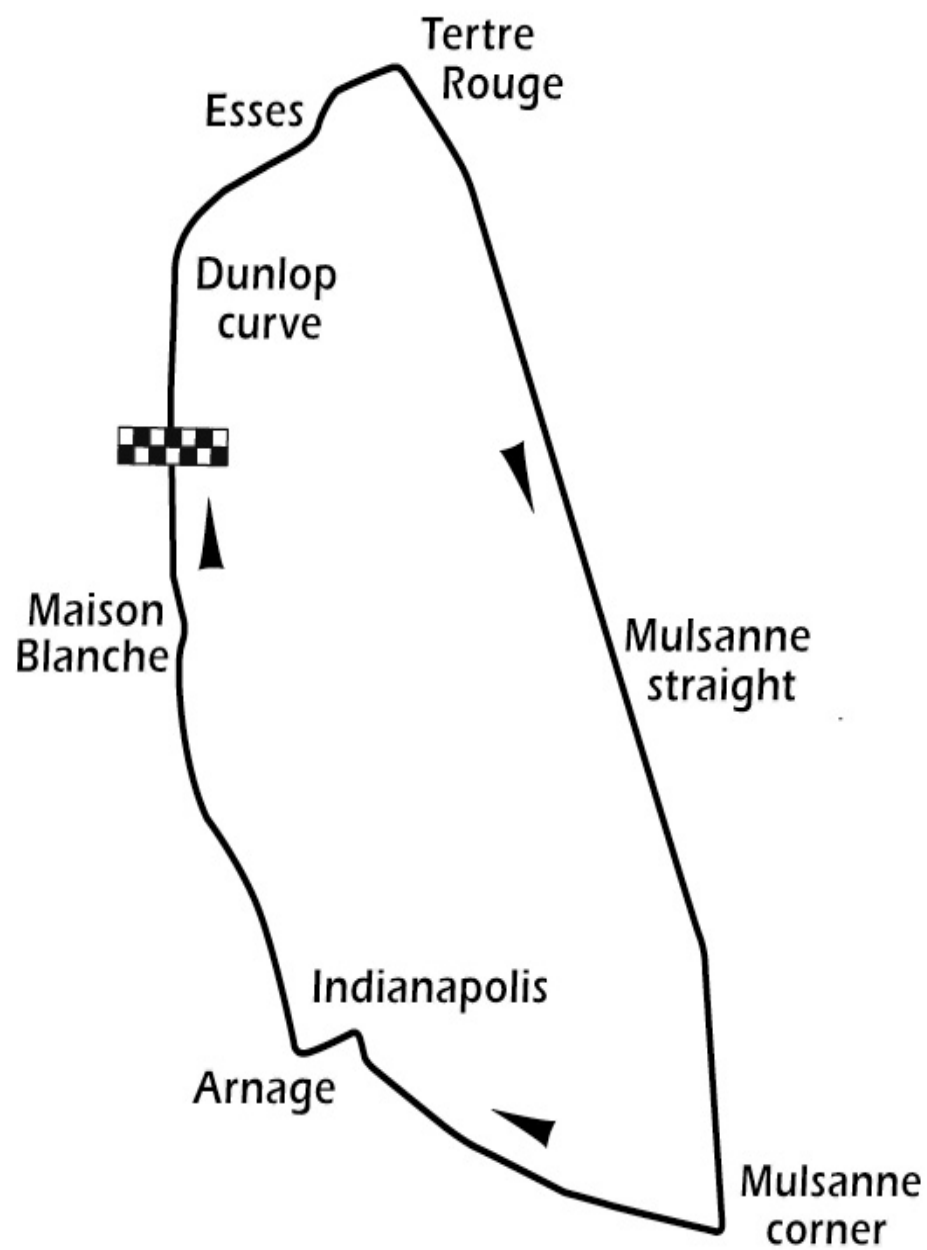
5 km

3 mi



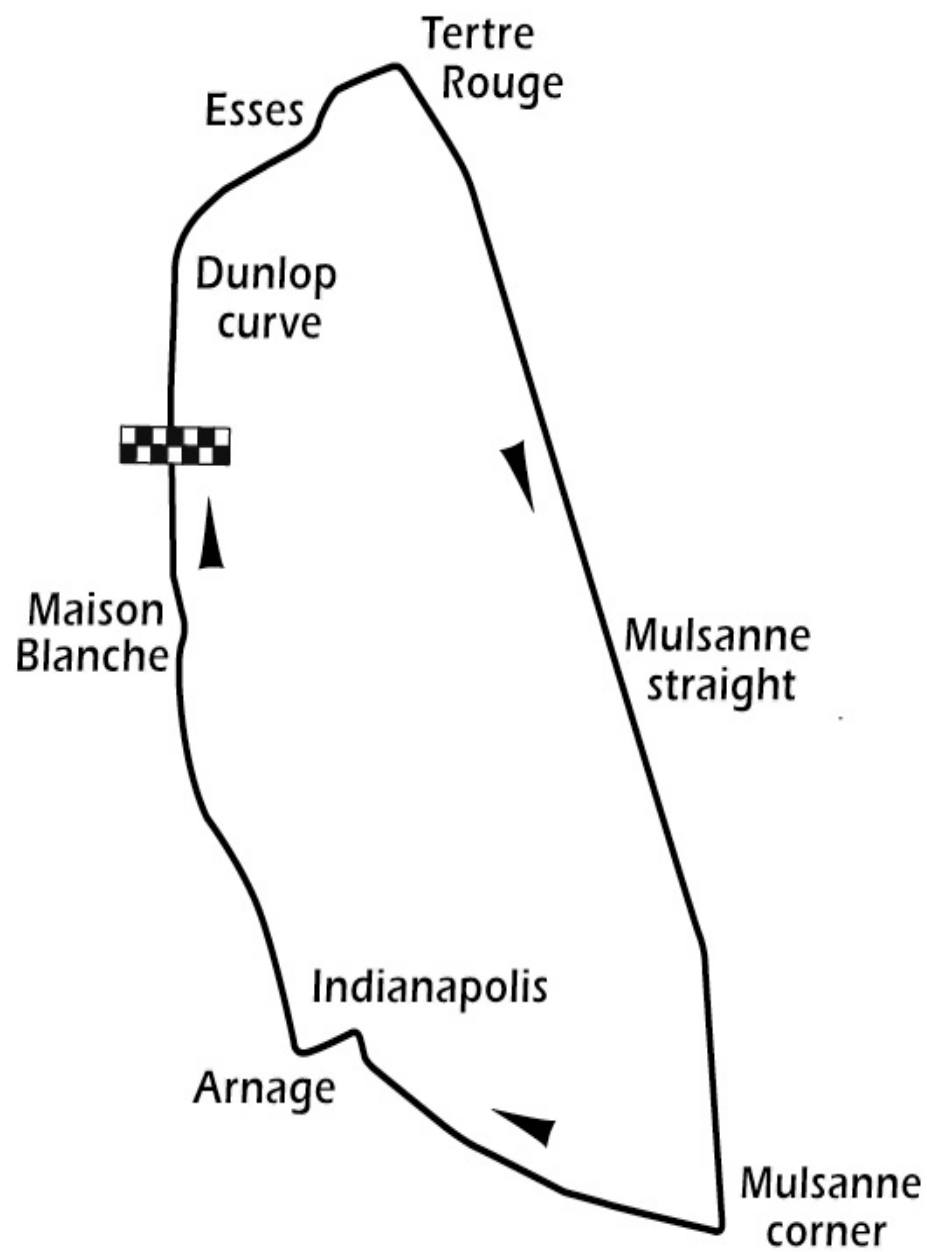
Circuit des 24 Heures de la Sarthe
1929-31

16.430km / 10.209 miles



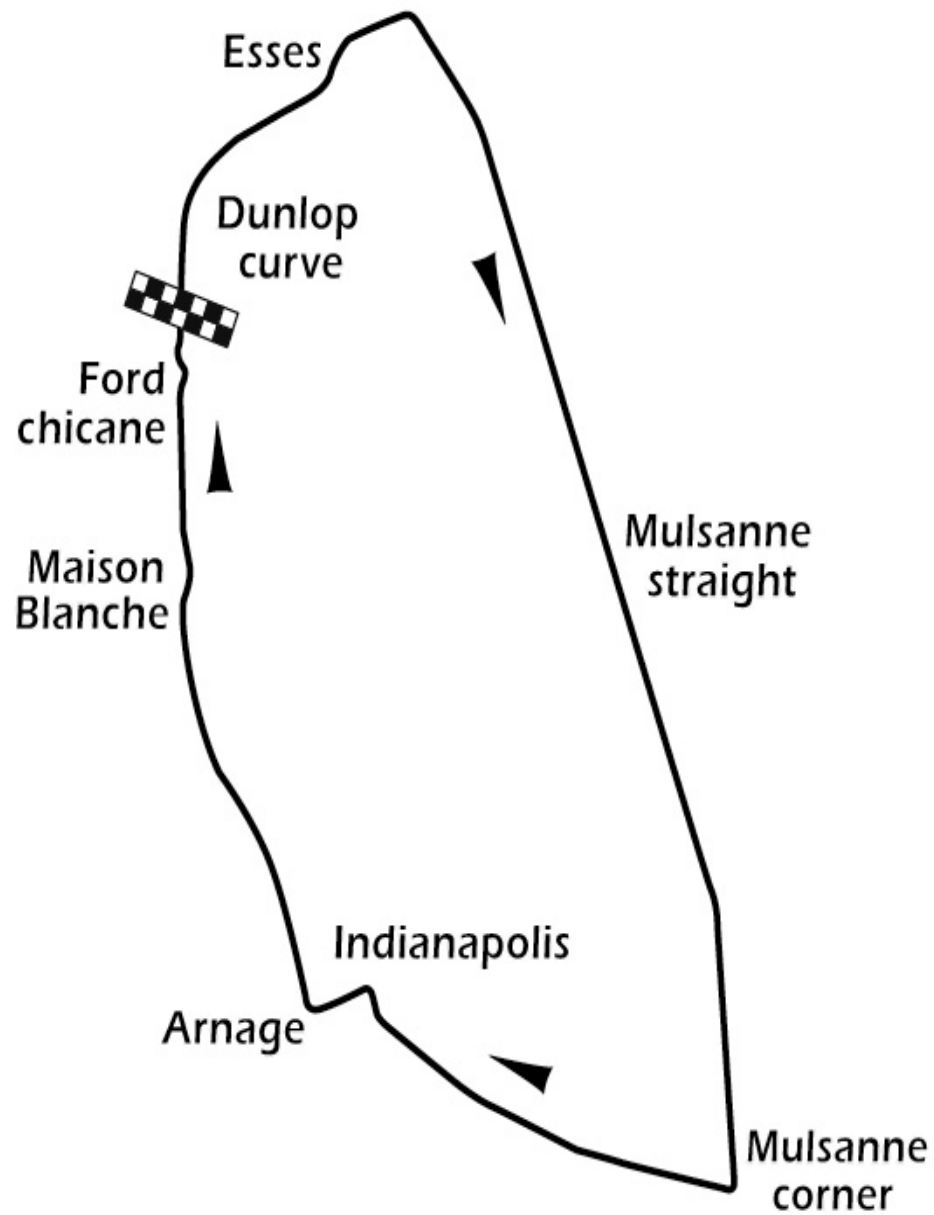
Circuit des 24 Heures de la Sarthe
1932-55

13.491km / 8.383 miles



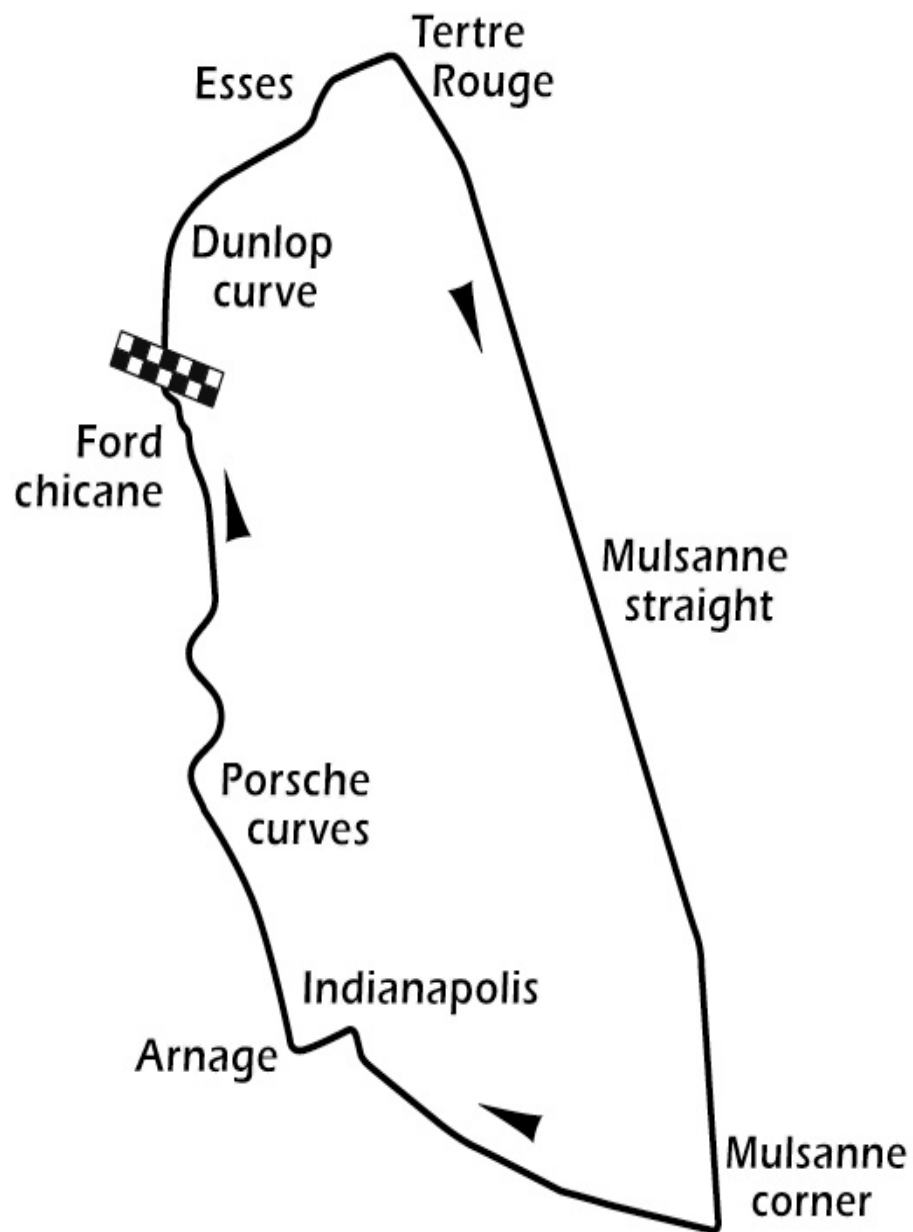
Circuit des 24 Heures de la Sarthe
1955–67

13.461km / 8.364 miles



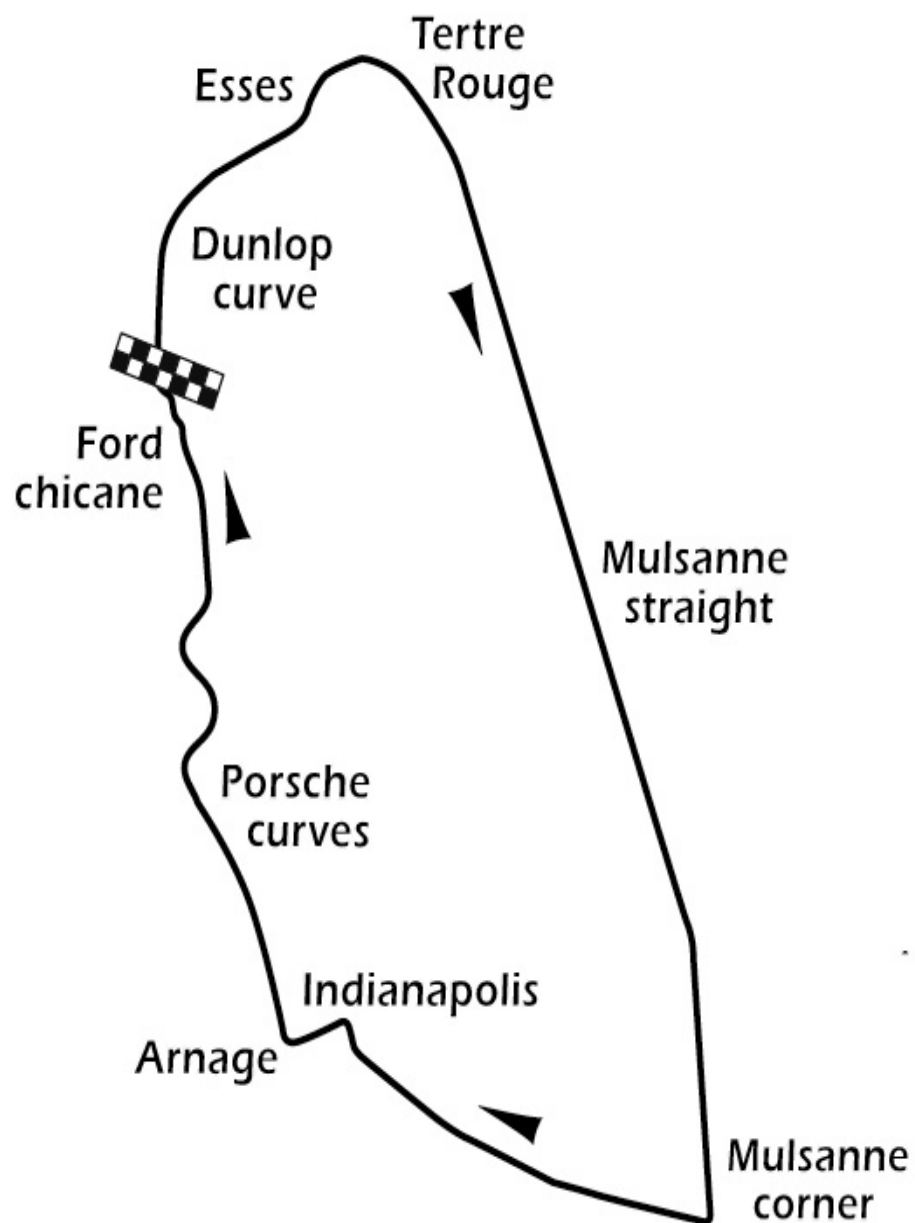
**Circuit des 24 Heures de la Sarthe
1968–71**

13.469 km / 8.369 mi



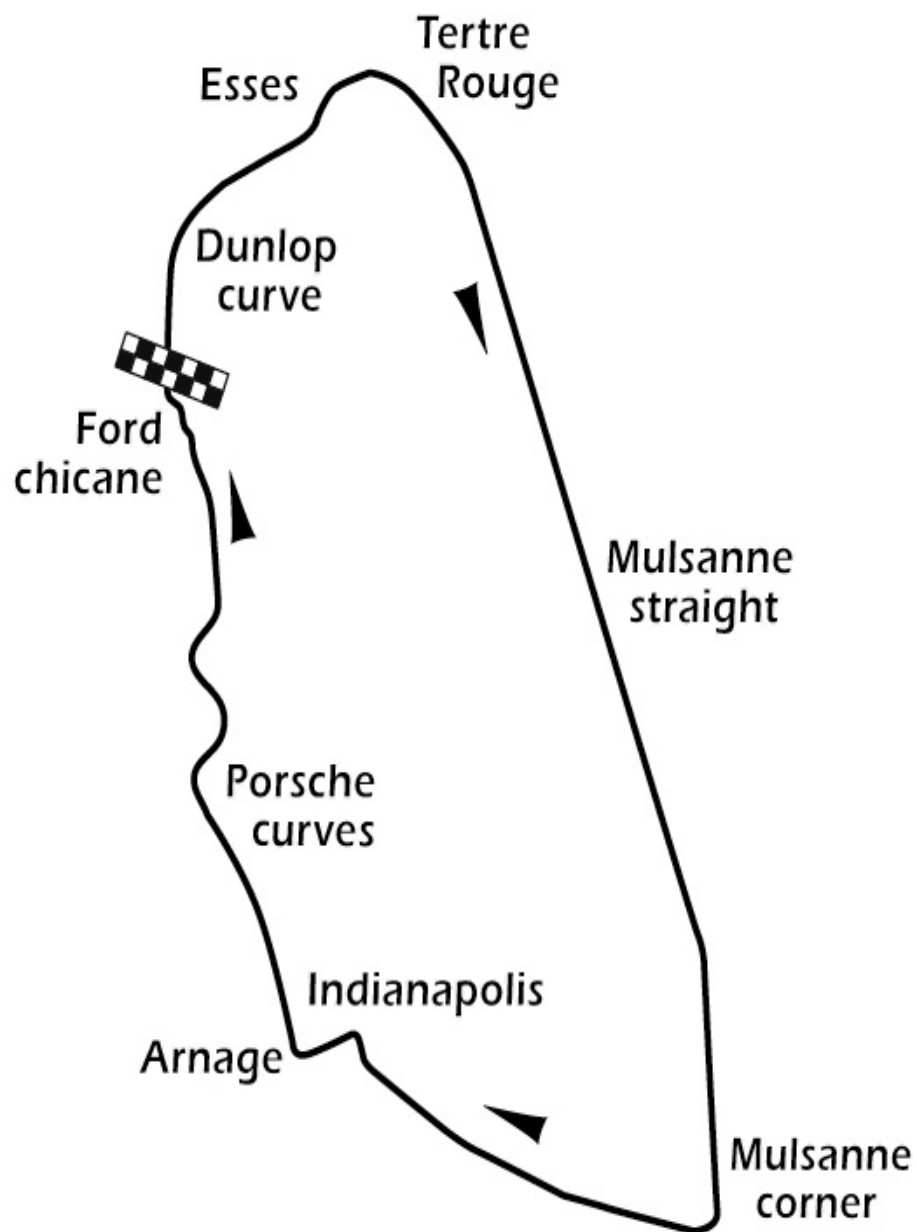
**Circuit des 24 Heures de la Sarthe
1972-78**

13.640 km / 8.476 mi



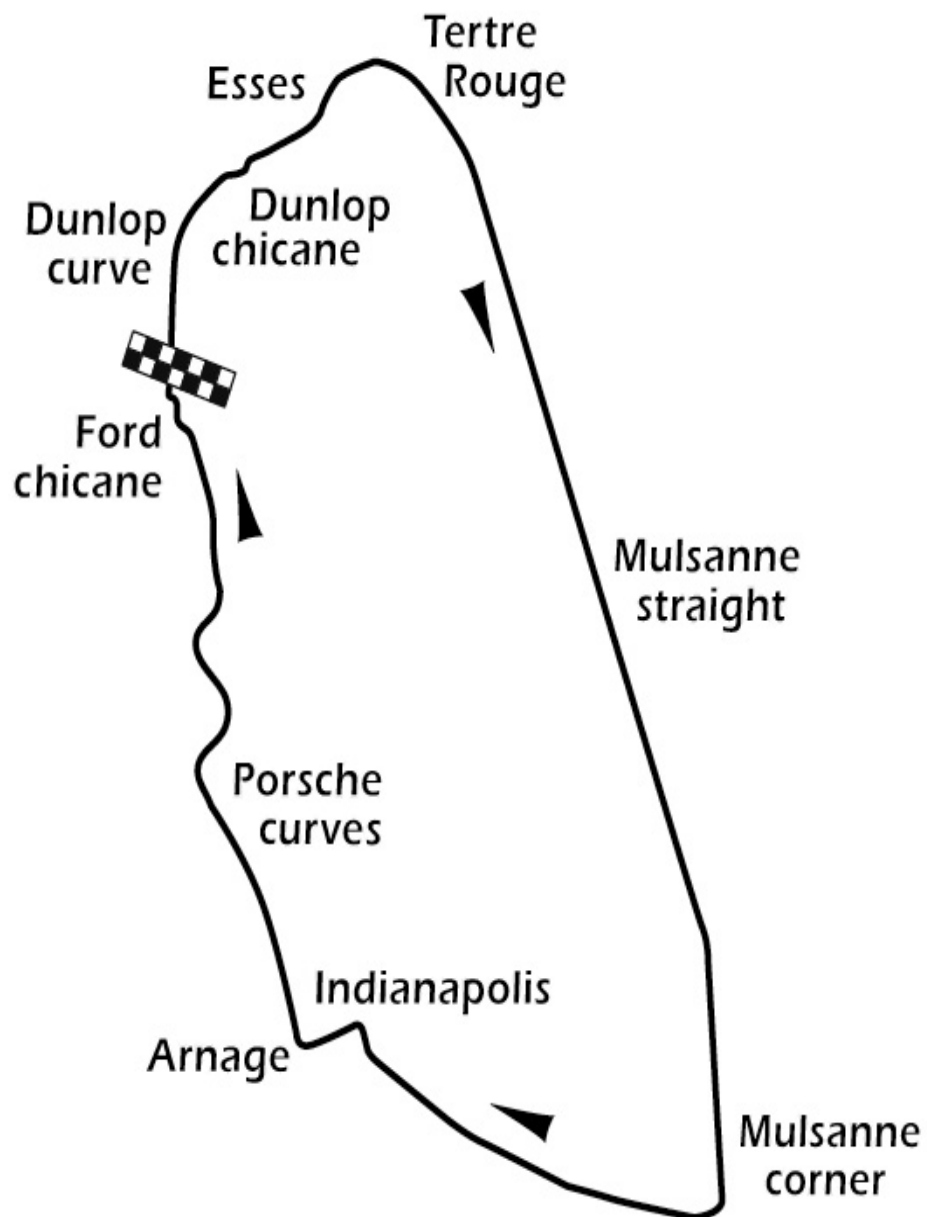
Circuit des 24 Heures de la Sarthe
1979–85

13.625km / 8.466 miles



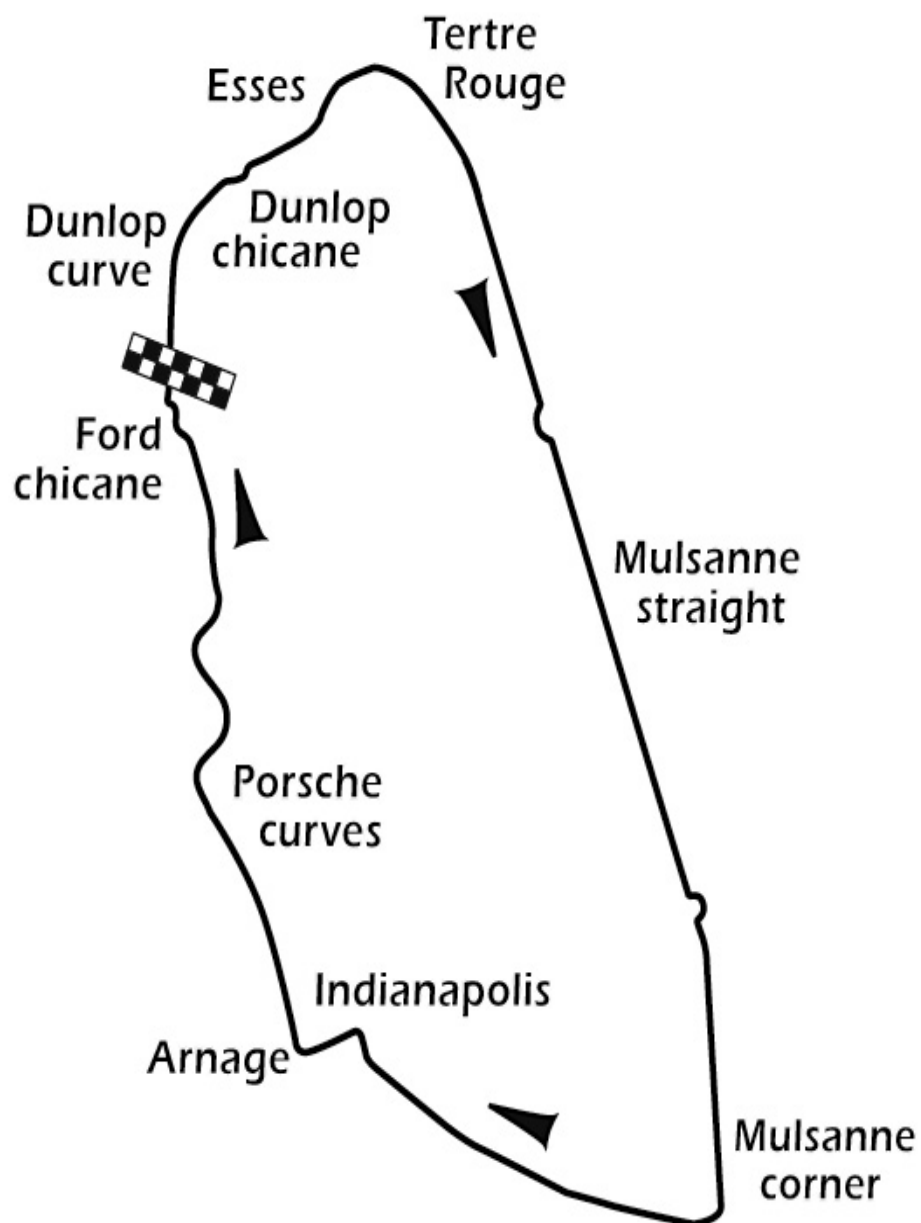
Circuit des 24 Heures de la Sarthe 1986

13.528 km / 8.406 mi



Circuit des 24 Heures de la Sarthe 1987–89

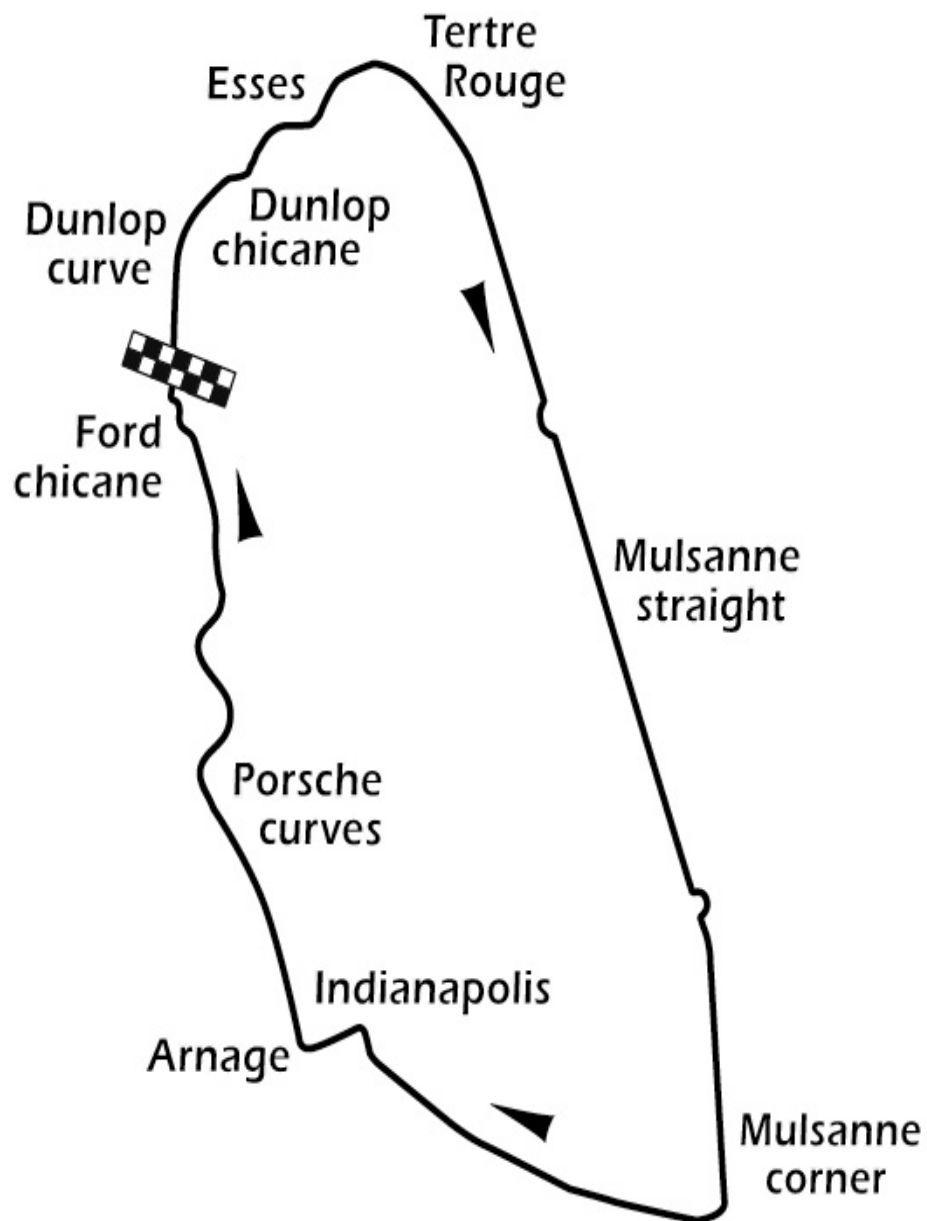
13.535 km / 8.410 mi



Circuit des 24 Heures de la Sarthe

1990–2001

13.605 km / 8.454 mi



Circuit des 24 Heures de la Sarthe
2002–present
13.626km / 8.467 miles

APPENDIX 2

Overall Winners 1923–2022

1923

- 1 Chenard et Walcker Type U3 15CV Sport (André Lagache/René Léonard)
1,372 miles / 57.2 mph
- 2 Chenard et Walcker Type U3 15CV Sport (Raoul Bachmann/Christian Dauvergne)
- 3 Bignan 11CV Desmo Sport (Baron Raymond de Tornaco/Paul Gros)
Starters/finishers: 33/30

1924

- 1 Bentley 3-litre Sport (John Duff/Frank Clement) 1,290 miles / 53.7 mph
- 2 Lorraine-Dietrich B3-6 Sport (Henri Stoffel/Édouard Brisson)
- 3 Lorraine-Dietrich B3-6 Sport (Gérard de Courcelles/André Rossignol)
Starters/finishers: 41/14

1925

- 1 Lorraine-Dietrich B3-6 Sport (Gérard de Courcelles/André Rossignol) 1,388 miles / 57.8 mph
- 2 Sunbeam 3-litre Super Sports (Jean Chassagne/S. C. H. Davis)
- 3 Lorraine-Dietrich B3-6 Sport (Henri Stalter/Édouard Brisson)
Starters/finishers: 49/16

1926

- 1 Lorraine-Dietrich B3-6 Le Mans (Robert Bloch/André Rossignol) 1,585 miles / 66.1 mph
 - 2 Lorraine-Dietrich B3-6 Le Mans (Gérard de Courcelles/Marcel Mongin)
 - 3 Lorraine-Dietrich B3-6 Le Mans (Henri Stalter/Édouard Brisson)
- Starters/finishers: 41/13*

1927

- 1 Bentley 3-litre Speed (Dudley Benjafield/S. C. H. Davis) 1,472 miles / 61.2 mph
 - 2 Salmson Grand Sport (André de Victor/Jean Hasley)
 - 3 Salmson Grand Sport (Georges Casse/André Rousseau)
- Starters/finishers: 22/7*

1928

- 1 Bentley 4 ½-litre (Woolf Barnato/Bernard Rubin) 1,658 miles / 69.1 mph
 - 2 Stutz Blackhawk (Édouard Brisson/Robert Bloch)
 - 3 Chrysler Six (Henri Stoffel/André Rossignol)
- Starters/finishers: 33/17*

1929

- 1 Bentley Speed Six (Woolf Barnato/Sir Henry Birkin) 1,767 miles / 73.6 mph
 - 2 Bentley 4 ½-litre (Jack Dunfee/Glen Kidston)
 - 3 Bentley 4 ½-litre (Dudley Benjafield/Baron André d'Erlanger)
- Starters/finishers: 25/10*

1930

- 1 Bentley Speed Six (Woolf Barnato/Glen Kidston) 1,821 miles / 75.8 mph
 - 2 Bentley Speed Six (Frank Clement/Dick Watney)
 - 3 Talbot 90 (Brian Lewis/Hugh Eaton)
- Starters/finishers: 17/9*

1931

- 1 Alfa Romeo 8C 2300 LM (Lord Howe/Sir Henry Birkin) 1,875 miles / 78.1 mph
 - 2 Mercedes-Benz SSK (Boris Ivanowski/Henri Stoffel)
 - 3 Talbot AV105 (Tim Rose-Richards/Owen Saunders-Davies)
- Starters/finishers: 26/6*

1932

- 1 Alfa Romeo 8C 2300 LM (Raymond Sommer/Luigi Chinetti) 1,835.56 miles / 76.48 mph
 - 2 Alfa Romeo 8C 2300 LM (Franco Cortese/Gianbattista Guidotti)
 - 3 Talbot AV105 (Brian Lewis/Tim Rose-Richards)
- Starters/finishers: 26/9*

1933

- 1 Alfa Romeo 8C 2300 MM-LM (Raymond Sommer/Tazio Nuvolari) 1,953.62 miles / 81.40 mph
 - 2 Alfa Romeo 8C 2300 MM-LM (Luigi Chinetti/'Philippe Varent')
 - 3 Alfa Romeo 8C 2300 LM (Brian Lewis/Tim Rose-Richards)
- Starters/finishers: 29/13*

1934

- 1 Alfa Romeo 8C 2300 MM-LM (Luigi Chinetti/Philippe Étancelin) 1,781.43 miles / 74.74 mph
 - 2 Riley 12/6 MPH Racing (Jean Sébilleau/Georges Delaroche)
 - 3 Riley 12/6 MPH Racing (Freddie Dixon/Cyril Paul)
- Starters/finishers: 44/23*

1935

- 1 Lagonda M45 Rapide (Johnny Hindmarsh/Luis Fontes) 1,879.24 miles / 78.30 mph
- 2 Alfa Romeo 8C 2300 LM (Pierre Louis-Dreyfus/Henri Stoffel)

3 Aston Martin Ulster (Charlie Martin/Charles Brackenbury)

Starters/finishers: 58/28

1936

No race

Entries: 58

1937

1 Bugatti T57G (Jean-Pierre Wimille/Robert Benoist) 2,054.96 miles / 85.48 mph

2 Delahaye 135CS (Joseph Paul/Marcel Mongin)

3 Delahaye 135CS (René Dreyfus/Henri Stoffel)

Starters/finishers: 49/17

1938

1 Delahaye 135CS (Eugène Chaboud/Jean Trémoulet) 1,988.08 miles / 82.83 mph

2 Delahaye 135CS (Gaston Serraud/Yves Giraud-Cabantous)

3 Talbot T150SS (Jean Prenant/André Morel)

Starters/finishers: 42/15

1939

1 Bugatti T57C (Jean-Pierre Wimille/Pierre Veyron) 2,079.17 miles / 86.85 mph

2 Delage D6-3L (Louis Gérard/Georges Monneret)

3 Lagonda V12 Rapide (Arthur Dobson/Charles Brackenbury)

Starters/finishers: 42/20

1940–48

No race

1949

- 1 Ferrari 166 MM (Luigi Chinetti/Lord Selsdon) 1,975.00 miles / 82.76 mph
- 2 Delage D6S-3L (Henri Louveau/Juan Jover)
- 3 Frazer Nash HS (H. J. Aldington/Norman Culpan)

Starters/finishers: 49/16

1950

- 1 Talbot-Lago T26 GS (Louis Rosier/Jean-Louis Rosier) 2,153.12 miles / 89.72 mph
- 2 Talbot-Lago T26 (Pierre Meyrat/Guy Mairesse)
- 3 Allard-Cadillac J2 (Sydney Allard/Tom Cole Jr)

Starters/finishers: 60/29

1951

- 1 Jaguar XK120C (Peter Walker/Peter Whitehead) 2,244.00 miles / 93.50 mph
- 2 Talbot-Lago T26 GS (Pierre Meyrat/Guy Mairesse)
- 3 Aston Martin DB2 (Lance Macklin/Eric Thompson)

Starters/finishers: 60/28

1952

- 1 Mercedes-Benz W194 (Hermann Lang/Fritz Riess) 2,320.20 miles / 96.7 mph
- 2 Mercedes-Benz W194 (Theo Helfrich/Helmut Niedermayr)
- 3 Nash-Healey 4-litre (Leslie Johnson/Tommy Wisdom)

Starters/finishers: 57/17

1953

- 1 Jaguar C-type (Tony Rolt/Duncan Hamilton) 2,540.32 miles / 105.84mph
- 2 Jaguar C-type (Stirling Moss/Peter Walker)
- 3 Cunningham C-5R (Phil Walters/John Fitch)

Starters/finishers: 60/26

1954

1 Ferrari 375 Plus (José Froilán González/Maurice Trintignant) 2,523.56 miles / 105.15 mph

2 Jaguar D-type (Tony Rolt/Duncan Hamilton)

3 Cunningham C-4R (Bill Spear/Sherwood Johnson)

Starters/finishers: 54/17

1955

1 Jaguar D-type (Mike Hawthorn/Ivor Bueb) 2,569.60 miles / 107.70 mph

2 Aston Martin DB3S (Peter Collins/Paul Frère)

3 Jaguar D-type (Jacques Swaters/Johnny Claes)

Starters/finishers: 60/19

1956

1 Jaguar D-type (Ninian Sanderson/Ron Flockhart) 2,507.19 miles / 104.46 mph

2 Aston Martin DB3S (Stirling Moss/Peter Collins)

3 Ferrari 625 LM (Olivier Gendebien/Maurice Trintignant)

Starters/finishers: 49/13

1957

1 Jaguar D-type (Ron Flockhart/Ivor Bueb) 2,732.24 miles / 113.85 mph

2 Jaguar D-type (Ninian Sanderson/Jock Lawrence)

3 Jaguar D-type (Jean Lucas/'Mary')

Starters/finishers: 54/20

1958

1 Ferrari 250 TR/58 (Phil Hill/Olivier Gendebien) 2,548.82 miles / 106.20 mph

2 Aston Martin DB3S (Peter Whitehead/Graham Whitehead)

3 Porsche 718 RSK (Jean Behra/Hans Herrmann)

Starters/finishers: 56/17

1959

1 Aston Martin DBR1/300 (Carroll Shelby/Roy Salvadori) 2,701.66 miles / 112.57 mph

2 Aston Martin DBR1/300 (Maurice Trintignant/Paul Frère)

3 Ferrari 250 GT ('Beurlys'/'Eldé')

Starters/finishers: 53/13

1960

1 Ferrari 250 TR/59/60 (Olivier Gendebien/Paul Frère) 2,620.65 miles / 109.19 mph

2 Ferrari 250 TR59 (André Pilette/Pedro Rodríguez)

3 Aston Martin DBR1/300 (Roy Salvadori/Jim Clark)

Starters/finishers: 55/25

1961

1 Ferrari 250 TRI/61 (Olivier Gendebien/Phil Hill) 2,781.62 miles / 115.90 mph

2 Ferrari 250 TRI/61 (Willy Mairesse/Mike Parkes)

3 Ferrari 250 GT (Pierre Noblet/Jean Guichet)

Starters/finishers: 55/22

1962

1 Ferrari 330 TRI/LM (Olivier Gendebien/Phil Hill) 2,765.88 miles / 115.25 mph

2 Ferrari 250 GTO (Pierre Noblet/Jean Guichet)

3 Ferrari 250 GTO ('Beurlys'/'Eldé')

Starters/finishers: 55/18

1963

1 Ferrari 250 P (Lorenzo Bandini/Ludovico Scarfiotti) 2,834.52 miles / 118.10 mph

2 Ferrari 250 GTO ('Beurlys'/Gérard Langlois van Ophem)

3 Ferrari 250 P (Mike Parkes/Umberto Maglioli)

Starters/finishers: 49/12

1964

- 1 Ferrari 275 P (Jean Guichet/Nino Vaccarella) 2,917.53 miles / 121.57 mph
- 2 Ferrari 330 P (Jo Bonnier/Graham Hill)
- 3 Ferrari 330 P (Lorenzo Bandini/John Surtees)

Starters/finishers: 55/24

1965

- 1 Ferrari 275 LM (Masten Gregory/Jochen Rindt/Ed Hugus*) 2,906.22 miles / 121.09 mph)
- 2 Ferrari 275 LM (Pierre Dumay/Gustave Gosselin)
- 3 Ferrari 275 GTB ('Beurlys'/Willy Mairesse) Starters/finishers: 51/14
*unconfirmed

1966

- 1 Ford GT40 Mk II (Chris Amon/Bruce McLaren) 3,009.36 miles / 125.39 mph
- 2 Ford GT40 Mk II (Denny Hulme/Ken Miles)
- 3 Ford GT40 Mk II (Ronnie Bucknum/Dick Hutcherson)

Starters/finishers: 55/15

1967

- 1 Ford GT40 Mk IV (A. J. Foyt/Dan Gurney) 3,251.57 miles / 135.38 mph
- 2 Ferrari 330 P4 (Mike Parkes/Ludovico Scarfiotti)
- 3 Ferrari 330 P4 ('Beurlys'/Willy Mairesse)

Starters/finishers: 54/15

1968

- 1 Ford GT40 (Lucien Bianchi/Pedro Rodríguez) 2,766.89 miles / 115.29 mph
- 2 Porsche 907 LH (Dieter Spoerry/Rico Steinemann)
- 3 Porsche 908 LH (Jochen Neerpasch/Rolf Stommelen)

Starters/finishers: 54/15

1969

1 Ford GT40 (Jacky Ickx/Jackie Oliver) 3,105.61 miles / 129.40 mph

2 Porsche 908 LH (Hans Herrmann/Gérard Larrousse)

3 Ford GT40 (Mike Hailwood/David Hobbs)

Starters/finishers: 45/14

1970

1 Porsche 917K (Richard Attwood/Hans Herrmann) 2,863.02 miles / 119.30 mph

2 Porsche 917L (Willi Kauhsen/Gérard Larrousse)

3 Porsche 908/2 LH (Rudi Lins/Helmut Marko)

Starters/finishers: 51/7

1971

1 Porsche 917K (Gijs van Lennep/Helmut Marko) 3,315.21 miles / 138.12 mph

2 Porsche 917K (Richard Attwood/Herbert Müller)

3 Ferrari 512M (Tony Adamowicz/Sam Posey)

Starters/finishers: 49/12

1972

1 Matra-Simca MS670 (Graham Hill/Henri Pescarolo) 2,915.06 miles / 121.45 mph

2 Matra-Simca MS670 (François Cevert/Howden Ganley)

3 Porsche 908 LH (Mario Casoni/Reinhold Joest/Michel Weber)

Starters/finishers: 55/18

1973

1 Matra-Simca MS670B (Gérard Larrousse/Henri Pescarolo) 3,016.10 miles / 125.67 mph

2 Ferrari 312 PB (Arturo Merzario/Carlos Pace)

3 Matra-Simca MS670B (Jean-Pierre Jabouille/Jean-Pierre Jaussaud)

Starters/finishers: 55/21

1974

- 1 Matra-Simca MS670C (Gérard Larrousse/Henri Pescarolo) 2,862.39 miles / 119.28 mph
 - 2 Porsche 911 Carrera RSR Turbo (Gijs van Lennep/Herbert Müller)
 - 3 Matra-Simca MS670C (Jean-Pierre Jabouille/François Migault)
- Starters/finishers: 49/20*

1975

- 1 Mirage-DFV GR8 (Derek Bell/Jacky Ickx) 2,855.56 miles / 118.99 mph
 - 2 Ligier-DFV JS2 (Guy Chasseuil/Jean-Louis Lafosse)
 - 3 Mirage-DFV GR8 (Jean-Pierre Jaussaud/Vern Schuppan)
- Starters/finishers: 55/27*

1976

- 1 Porsche 936 (Jacky Ickx/Gijs van Lennep) 2,964.03 miles / 123.5 mph
 - 2 Mirage-DFV M8 (Jean-Louis Lafosse/François Migault)
 - 3 De Cadenet Lola-DFV T380 (Alain de Cadenet/Chris Craft)
- Starters/finishers: 55/24*

1977

- 1 Porsche 936-77 (Jürgen Barth/Hurley Haywood/Jacky Ickx) 2,904.94 miles / 120.96 mph
 - 2 Mirage-Renault M8 (Jean-Pierre Jarier/Vern Schuppan)
 - 3 Porsche 935 (Claude Ballot-Léna/Peter Gregg)
- Starters/finishers: 55/20*

1978

- 1 Renault Alpine A442B (Jean-Pierre Jaussaud/Didier Pironi) 3,134.53 miles / 130.62 mph
 - 2 Porsche 936-78 (Jürgen Barth/Jacky Ickx/Bob Wollek)
 - 3 Porsche 936-77 (Peter Gregg/Hurley Haywood/Reinhold Joest)
- Starters/finishers: 55/17*

1979

- 1 Porsche 935-K3 (Klaus Ludwig/Bill Whittington/Don Whittington) 2,593.56 miles / 108.07 mph
- 2 Porsche 935/77A (Dick Barbour/Paul Newman/Rolf Stommelen)
- 3 Porsche 935/77A (Laurent Ferrier/François Servanin/François Trisconi)
Starters/finishers: 55/22

1980

- 1 Rondeau-DFV M379B (Jean-Pierre Jaussaud/Jean Rondeau) 2,863.29 miles / 119.24 mph
- 2 Porsche 908/J80 (Jacky Ickx/Reinhold Joest)
- 3 Rondeau-DFV M379B (Jean-Michel Martin/Philippe Martin/Gordon Spice)
Starters/finishers: 55/25

1981

- 1 Porsche 936/81 (Derek Bell/Jacky Ickx) 2,998.33 miles / 124.93 mph
- 2 Rondeau-DFV M379C (Jacky Haran/Jean-Louis Schlesser/Philippe Streif)
- 3 Rondeau-DFV M379C (François Migault/Gordon Spice)
Starters/finishers: 55/18

1982

- 1 Porsche 956 (Derek Bell/Jacky Ickx) 3,044.15 miles / 126.84 mph
- 2 Porsche 956 (Jochen Mass/Vern Schuppan)
- 3 Porsche 956 (Jürgen Barth/Hurley Haywood/Al Holbert)
Starters/finishers: 55/19

1983

- 1 Porsche 956 (Hurley Haywood/Al Holbert/Vern Schuppan) 3,154.95 miles / 131.45 mph
- 2 Porsche 956 (Derek Bell/Jacky Ickx)
- 3 Porsche 956 (Philippe Alliot/Mario Andretti/Michael Andretti)
Starters/finishers: 51/20

1984

- 1 Porsche 956B (Klaus Ludwig/Henri Pescarolo) 3,044.89 miles / 126.87 mph
- 2 Porsche 956 (John Paul Jr/Jean Rondeau)
- 3 Porsche 956B (David Hobbs/Sarel van der Merwe/Philippe Streiff)

Starters/finishers: 53/22

1985

- 1 Porsche 956B (Paolo Barilla/Klaus Ludwig/'John Winter') 3,180.31 miles / 132.51 mph
- 2 Porsche 956 GTi (Richard Lloyd/Jonathan Palmer/James Weaver)
- 3 Porsche 962C (Derek Bell/Hans-Joachim Stuck)

Starters/finishers: 49/24

1986

- 1 Porsche 962C (Derek Bell/Al Holbert/Hans-Joachim Stuck) 3,107.95 miles / 129.49 mph
- 2 Porsche 962C (Joël Gouhier/Oscar Larrauri/Jesús Pareja)
- 3 Porsche 956 (George Follmer/Kenper Miller/John Morton)

Starters/finishers: 50/19

1987

- 1 Porsche 962C (Derek Bell/Al Holbert/Hans-Joachim Stuck) 2,994.85 miles / 124.78 mph
- 2 Porsche 962C (Bernard de Dryver/Jürgen Lässig/Pierre Yver)
- 3 Cougar-Porsche C20 (Yves Courage/Pierre-Henri Raphanel/Hervé Regout)

Starters/finishers: 48/12

1988

- 1 Jaguar XJR-9LM (Johnny Dumfries/Jan Lammers/Andy Wallace) 3,333.10 miles / 138.60 mph
- 2 Porsche 962C (Derek Bell/Klaus Ludwig/Hans-Joachim Stuck)
- 3 Porsche 962C (Stanley Dickens/Frank Jelinski/'John Winter')

Starters/finishers: 49/25

1989

- 1 Sauber-Mercedes C9 (Stanley Dickens/Jochen Mass/Manuel Reuter)
3,290.69 miles / 137.49 mph
- 2 Sauber-Mercedes C9 (Kenny Acheson/Mauro Baldi/Gianfranco Brancatelli)
- 3 Porsche 962C (Hans-Joachim Stuck/Bob Wollek)

Starters/finishers: 55/19

1990

- 1 Jaguar XJR-12 (Martin Brundle/Price Cobb/John Nielsen) 3,051.50 miles /
127.51 mph
- 2 Jaguar XJR-12 (Franz Konrad/Jan Lammers/Andy Wallace)
- 3 Porsche 962C (Tiff Needell/Anthony Reid/David Sears)

Starters/finishers: 49/28

1991

- 1 Mazda 787B (Bertrand Gachot/Johnny Herbert/Volker Weidler) 3,076.75
miles / 127.47 mph
- 2 Jaguar XJR-12 (Raul Boesel/Michel Ferté/Davy Jones)
- 3 Jaguar XJR-12 (Kenny Acheson/Teo Fabi/Bob Wollek)

Starters/finishers: 38/12

1992

- 1 Peugeot 905 Evo 1B (Mark Blundell/Yannick Dalmas/Derek Warwick) 2,992
miles / 124.58 mph
- 2 Toyota TS010 (Kenny Acheson/Pierre-Henri Raphanel/Masanori Sekiya)
- 3 Peugeot 905 Evo 1B (Philippe Alliot/Mauro Baldi/Jean-Pierre Jabouille)

Starters/finishers: 28/14

1993

- 1 Peugeot 905 Evo 1B (Geoff Brabham/Eric Hélary/Christophe Bouchut)
3,168.99 miles / 132.05 mph
- 2 Peugeot 905 Evo 1B (Thierry Boutsen/Yannick Dalmas/Teo Fabi)
- 3 Peugeot 905 Evo 1B (Philippe Alliot/Mauro Baldi/Jean-Pierre Jabouille)
Starters/finishers: 49/30

1994

- 1 Dauer-Porsche 962 (Mauro Baldi/Yannick Dalmas/Hurley Haywood) 2,911.56
miles / 121.32 mph
- 2 Toyota 94C-V (Eddie Irvine/Mauro Martini/Jeff Krosnoff)
- 3 Dauer-Porsche 962 (Thierry Boutsen/Hans-Joachim Stuck/Danny Sullivan)
Starters/finishers: 48/18

1995

- 1 McLaren F1 GTR (Yannick Dalmas/J. J. Lehto/Masanori Sekiya) 2,520.15
miles / 105.01 mph
- 2 Courage-Porsche C34 (Mario Andretti/Eric Hélary/Bob Wollek)
- 3 McLaren F1 GTR (Derek Bell/Justin Bell/Andy Wallace)
Starters/finishers: 48/20

1996

- 1 TWR-Porsche WSC-95 (Davy Jones/Manuel Reuter/Alex Wurz) 2,991.52
miles / 124.636 mph
- 2 Porsche 911 GT1 (Thierry Boutsen/Hans-Joachim Stuck/Bob Wollek)
- 3 Porsche 911 GT1 (Yannick Dalmas/Scott Goodyear/Karl Wendlinger)
Starters/finishers: 48/25

1997

- 1 TWR-Porsche WSC-95 (Michele Alboreto/Stefan Johansson/Tom
Kristensen) 3,050.67 miles / 127.09 mph
- 2 McLaren F1 GTR (Jean-Marc Gounon/Anders Olofsson/Pierre-Henri
Raphanel)

3 McLaren F1 GTR (Eric Hélary/Peter Kox/Roberto Ravaglia)

Starters/finishers: 49/17

1998

1 Porsche 911 GT1-98 (Laurent Aiello/Allan McNish/Stéphane Ortelli) 2,972.49 miles / 123.85 mph

2 Porsche 911 GT1-98 (Uwe Alzen/Jörg Müller/Bob Wollek)

3 Nissan R390 GT1 (Kazuyoshi Hoshino/Masahiko Kageyama/Aguri Suzuki)

Starters/finishers: 47/23

1999

1 BMW V12 LMR (Yannick Dalmas/Pierluigi Martini/Joachim Winkelhock) 3,096.27 miles / 128.59 mph

2 Toyota GT-One (Ukyo Katayama/Toshio Suzuki/Kelichi Tsuchiya)

3 Audi R8R (Frank Biela/Emanuele Pirro/Didier Theys)

Starters/finishers: 45/22

2000

1 Audi R8 (Frank Biela/Tom Kristensen/Emanuele Pirro) 3,129.99 miles / 129.37 mph

2 Audi R8 (Laurent Aiello/Allan McNish/Stéphane Ortelli)

3 Audi R8 (Christian Abt/Michele Alboreto/Rinaldo Capello)

Starters/finishers: 48/27

2001

1 Audi R8 (Frank Biela/Tom Kristensen/Emanuele Pirro) 2,738.53 miles / 114.10 mph

2 Audi R8 (Laurent Aiello/Rinaldo Capello/Christian Pescatori)

3 Bentley EXP Speed 8 (Butch Leitzinger/Eric van de Poele/Andy Wallace)

Starters/finishers: 48/20

2002

1 Audi R8 (Frank Biela/Tom Kristensen/Emanuele Pirro) 3,119.21 miles / 133.16 mph

2 Audi R8 (Rinaldo Capello/Johnny Herbert/Christian Pescatori)

3 Audi R8 (Michael Krumm/Philipp Peter/Marco Werner)

Starters/finishers: 50/26

2003

1 Bentley Speed 8 (Rinaldo Capello/Tom Kristensen/Guy Smith) 3,215.9 miles / 133.99 mph

2 Bentley Speed 8 (Mark Blundell/David Brabham/Johnny Herbert)

3 Audi R8 (Stefan Johansson/J. J. Lehto/Emanuele Pirro)

Starters/finishers: 49/27

2004

1 Audi R8 (Seiji Ara/Rinaldo Capello/Tom Kristensen) 3,231.33 miles / 134.63 mph

2 Audi R8 (Jamie Davies/Johnny Herbert/Guy Smith)

3 Audi R8 (J. J. Lehto/Emanuele Pirro/Marco Werner)

Starters/finishers: 48/26

2005

1 Audi R8 (Tom Kristensen/J. J. Lehto/Marco Werner) 3,156.56 miles / 131.38 mph

2 Pescarolo-Judd C60 (Jean-Christophe Boullion/Emmanuel Collard/Érik Comas)

3 Audi R8 (Frank Biela/Allan McNish/Emanuele Pirro)

Starters/finishers: 49/24

2006

1 Audi R10 TDI (Frank Biela/Emanuele Pirro/Marco Werner) 3,241.87 miles / 134.62 mph

2 Pescarolo-Judd C60 (Éric Hélary/Sébastien Loeb/Franck Montagny)

3 Audi R10 TDI (Rinaldo Capello/Tom Kristensen/Allan McNish)

Starters/finishers: 50/25

2007

1 Audi R10 TDI (Frank Biela/Emanuele Pirro/Marco Werner) 3,143.18 miles / 130.71 mph

2 Peugeot 908 HDi FAP (Sébastien Bourdais/Pedro Lamy/Stéphane Sarrazin)

3 Pescarolo-Judd 01 (Jean-Christophe Boullion/Emmanuel Collard/Romain Dumas)

Starters/finishers: 54/29

2008

1 Audi R10 TDI (Rinaldo Capello/Tom Kristensen/Allan McNish) 3,226.68 miles / 135.18 mph

2 Peugeot 908 HDi FAP (Marc Gené/Nicolas Minassian/Jacques Villeneuve)

3 Peugeot 908 HDi FAP (Christian Klien/Franck Montagny/Ricardo Zonta)

Starters/finishers: 55/33

2009

1 Peugeot 908 HDi FAP (David Brabham/Marc Gené/Alex Wurz) 3,253.92 miles / 135.58 mph

2 Peugeot 908 HDi FAP (Sébastien Bourdais/Frank Montagny/Stéphane Sarrazin)

3 Audi R15 TDI (Rinaldo Capello/Tim Kristensen/Allan McNish)

Starters/finishers: 55/32

2010

1 Audi R15 TDI plus (Timo Bernhard/Romain Dumas/Mike Rockenfeller) 3,378.30 miles / 140.76 mph

2 Audi R15 TDI plus (Marcel Fässler/André Lotterer/Benoît Tréluyer)

3 Audi R15 TDI plus (Rinaldo Capello/Tom Kristensen/Allan McNish)

Starters/finishers: 55/27

2011

- 1 Audi R18 TDI (Marcel Fässler/André Lotterer/Benoît Tréluyer) 3,019.05 miles / 125.79 mph
 - 2 Peugeot 908 (Sébastien Bourdais/Pedro Lamy/Simon Pagenaud)
 - 3 Peugeot 908 (Nicolas Minassian/Franck Montagny/Stéphane Sarrazin)
- Starters/finishers: 56/27*

2012

- 1 Audi R18 e-tron quattro (Marcel Fässler/André Lotterer/Benoît Tréluyer) 3,219.85 miles / 134.06 mph
 - 2 Audi R18 e-tron quattro (Rinaldo Capello/Tom Kristensen/Allan McNish)
 - 3 Audi R18 ultra (Marco Bonanomi/Oliver Jarvis/Mike Rockenfeller)
- Starters/finishers: 55/33*

2013

- 1 Audi R18 e-tron quattro (Loïc Duval/Tom Kristensen/Allan McNish) 2,964.30 miles / 123.37 mph
 - 2 Toyota TS030 Hybrid (Sébastien Buemi/Anthony Davidson/Stéphane Sarrazin)
 - 3 Audi R18 e-tron quattro (Marc Gené/Lucas di Grassi/Oliver Jarvis)
- Starters/finishers: 56/41*

2014

- 1 Audi R18 e-tron quattro (Marcel Fässler/André Lotterer/Benoît Tréluyer) 3,229.45 miles / 134.31 mph
 - 2 Audi R18 e-tron quattro (Marc Gené/Lucas di Grassi/Tom Kristensen)
 - 3 Toyota TS040 Hybrid (Sébastien Buemi/Anthony Davidson/Nicolas Lapierre)
- Starters/finishers: 54/38*

2015

- 1 Porsche 919 Hybrid (Earl Bamber/Nico Hülkenberg/Nick Tandy) 3,364.26 miles / 140.12 mph

- 2 Porsche 919 Hybrid (Timo Bernhard/Brendon Hartley/Mark Webber)
 - 3 Audi R18 e-tron quattro (Marcel Fässler/André Lotterer/Benoît Tréluyer)
- Starters/finishers: 56/37*

2016

- 1 Porsche 919 Hybrid (Romain Dumas/Neel Jani/Marc Lieb) 3,229.45 miles / 134.31 mph
 - 2 Toyota TS050 Hybrid (Mike Conway/Kamui Kobayashi/Stéphane Sarrazin)
 - 3 Audi R18 (Loïc Duval/Lucas di Grassi/Oliver Jarvis)
- Starters/finishers: 60/44*

2017

- 1 Porsche 919 Hybrid (Earl Bamber/Timo Bernhard/Brendon Hartley) 3,125.76 miles / 130.12 mph
 - 2 Oreca-Gibson 07 (Oliver Jarvis/Thomas Laurent/Ho-Pin Tung)
 - 3 Oreca-Gibson 07 (Alex Brundle/David Cheng/Tristan Gommendy)
- Starters/finishers: 60/48*

2018

- 1 Toyota TS050 Hybrid (Fernando Alonso/Sébastien Buemi/Kazuki Nakajima) 3,283.92 miles / 136.83 mph
 - 2 Toyota TS050 Hybrid (Mike Conway/Kamui Kobayashi/José María López)
 - 3 Rebellion-Gibson R13 (Mathias Beche/Thomas Laurent/Gustavo Menezes)
- Starters/finishers: 60/41*

2019

- 1 Toyota TS050 Hybrid (Fernando Alonso/Sébastien Buemi/Kazuki Nakajima) 3,260.40 miles / 135.85 mph
 - 2 Toyota TS050 Hybrid (Mike Conway/Kamui Kobayashi/José María López)
 - 3 BR-AER BR1 (Mikhail Aleshin/Vitaly Petrov/Stoffel Vandoorne)
- Starters/finishers: 61/47*

2020

- 1 Toyota TS050 Hybrid (Sébastien Buemi/Brendon Hartley/Kazuki Nakajima)
3,235.62 miles / 134.81 mph
- 2 Rebellion-Gibson R13 (Bruno Senna/Gustavo Menezes/Norman Nato)
- 3 Toyota TS050 Hybrid (Mike Conway/Kamui Kobayashi/José María López)
Starters/finishers: 59/43

2021

- 1 Toyota GR010 Hybrid (Mike Conway/Kamui Kobayashi/José María López)
3,159.06 miles / 131.56 mph
- 2 Toyota GR010 Hybrid (Sébastien Buemi/Brendon Hartley/Kazuki Nakajima)
- 3 Alpine-Gibson A480 (Nicolas Lapierre/André Negrão/Matthieu Vaxivière)
Starters/finishers: 61/44

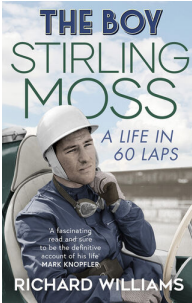
2022

- 1 Toyota GR010 Hybrid (Sébastien Buemi/Brendon Hartley/Ryō Hirakawa)
3,212.61 miles / 133.85 mph
- 2 Toyota GR010 Hybrid (Mike Conway/Kamui Kobayashi/José María López)
- 3 Glickenhaus SCG 007 (Ryan Briscoe/Franck Mailleux/Richard Westbrook)
Starters/finishers: 62/53

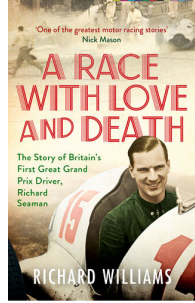
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Duke Video's series of individual DVDs devoted to the race from 1980 to 2020 were also invaluable, as were the 8mm films of John Tate, collected in ten volumes as *A Gentleman's Motor Racing Diary*.

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