FROM Callista TO Arista

While Arista is the name far better remembered both as a car and in association with the early career of the prolific designer Jacques Durand, the marque began life several years before as the Callista. The Callista emerged in the late 1940s, the product of two men by the name of Antonio Monge, proprietor of a race-car preparation business and Robert Rowe, an electrical engineer. They had met in 1941 when they worked together for a large electrical company called Fulmen where they made small battery-powered electric vehicles for the French government... a company that rolled into makers of electric fairground cars during the 1950s when electric vehicles lost traction in the marketplace. Fulmen still exist as manufacturers of a wide range of modern batteries. Rowe also had a talent for drawing and drew the plans for the first Callista roadster. Some would say that the original Callista with its rounded, slightly plump body shape and small vertical grille was a road going rendition of these fairground cars... an observation given even more credence by the fact that a small vertical grille opening was supplying air to an air-cooled flat twin!

However, the original car was intended to be raced at Le Mans. Monge, who had started his own business in 1935 specialising in the preparation of engines for the Le Mans 24 hour race, set about making the 610cc Panhard twin more competitive for the race. But the intent was to make a small volume production car with the Le Mans competition car being a promotional tool (and a bit of fun) as much as anything else. Monge started by approaching Paul Panhard to purchase 17 production Dyna chassis – presumably 2 for racing, 15 for production. Rowe and Monge then needed someone to...
make the hand-beaten steel body but were starting to run low on cash, so Monge approached Raymond Gaillard who ran the largest Panhard concessionaires in Paris at the time to help fund the project. The carrot was that Gaillard was offered a drive at the 1950 Le Mans, along with associate Pierre Chancel. They were entered near the tail end with the number 56.

For the event Monge fitted pistons with a 13% higher silicon content to reduce expansion and fitted new stellite valve seats to stop recession of the valves; a new process in 1950. The whole bottom end plus the gearbox was re-machined, which would have included rebalancing. With work on breathing the Le Mans engine ran to 7500 rpm as opposed to the standard engine’s 4500 rpm – no power output figures given. Nor was the weight given, although in stripped competition form it likely weighed less than the first production roadsters at 550kg. It was completed by 24th June, just in time for the 1950 Le Mans race.

Monge wanted to drive too, but his wife said no! The team finished in number 28 position. Following this the car competed successfully in the Coupe des Alpes. As a consequence the original production Callista was thus called, and was essentially the work of Rowe and Monge. It was a tidied up, straightened up version of car 56 to look at, but was a little longer and more luxuriously trimmed as a tourer. Weight went up to about 620-630kg. It did not sell well for it was quite high priced at a time when austerity still ruled Europe. Gaillard had other more commercial ideas and developed a more focused yet cheaper out-and-out sports version with 33 and 38bhp engines and weighing 550kg. These cars featured a more sporting looking horizontal 5-slat grille and were given the model name Ranelagh Sport after Gaillard’s
business; the Grand Garage Molière, rue de Ranelagh in Paris.

Creating more trouble for the team, Panhard introduced their Junior sports models the same year. It was similar in concept, cheaper, and yet used the same underpinnings. Gaillard responded by simplifying the car further, as seen in the later wide vertically slatted grille. Price was 950,000 francs in 1951. Production numbers were unspecified, but remained low. Meanwhile, Gaillard ran the car again in 1951 with Chancel and managed 26th place, taking home 8th place on Index. A production Callista Ranelagh was also entered by another team, driven by Colas and Schollmann and still running a 610cc engine. It reproduced the 1950 result, finishing in 28th place. Gaillard returned for a final run in the car in 1952, and with Chancel co-driving managed a respectable 16th place, still running the 610cc engine.

Other competition successes followed in the Liège-Rome-Liège, the hillclimb Essarts du Rouen, the Rallye des Alpes and the Sable-Solesmes rally. A September 1951 road test of a production Ranelagh by head editor of the bi-monthly publication Auto-Journal had this to say: "Compared to the normal engine Dyna
120, the group recently released by Sprint Panhard has a number of interesting changes to its inventory. There is a new Delco twin-choke carburettor, piping (manifold and exhaust?) of increased diameter, a cam shaft designed differently, a reinforced crankshaft, a lower compression ratio and some changes in lubrication system. Consequence of these improvements, the engine now develops 38cv to 5000 rpm, giving a power of 50 bhp per litre, comparable to the best achievements of the English and Italian.” Top speed was 140kph with this engine, and 135kph for the 33bhp model. It was noted that the lower compression made the engine less sensitive to ignition advance without causing detonation on the low grade fuels then currently available. The report went on to say that the car was firm riding up to 80kph, after which it became more compliant. It said its handling was similar, naturally, to a Panhard Dyna saloon but profited by its lower build and centre of gravity. They said it was sweet handling in 110-120kph turns, and also stopped well. They thought the car was well designed and had a good driving position. Fit and finish was praised in the main, with a few small niggles noted.

Meanwhile Rowe and Monge tried another tack by producing a longer Coupe version of the Coupe des Period Salon shot shows fold-flat windscreen not shown elsewhere. Top, production version of 1951 Le Mans car.
Alpes model. Called the Auteuil, it had a stretched chassis and body, and included rear seating as in a GT, but it remained a one-off. Before the onset of 1953, success as a commercial venture was looking slim for the Callista brand. As a consequence the partners had to consider which way to move in order to stay solvent. The outcome was some differences in opinion which resulted in the original founders Rowe and Monge leaving the company. Monge returned to his prior occupation of engine tuning and race preparation, while Rowe went into importing Romanian tractors that caused him bankruptcy due to faulty design. Gaillard took over and renamed the cars Arista. Initially, the later version of the Callista Ranelagh became the first Arista. It was soon joined by a new Coupe version of the car that was not unlike the Pichon-Parat Panhard Junior, but featured a ‘smiley face’ grille, a more flowing front wing line and a lower fastback roof. This was presented at the 1953 Paris show. It was slightly shorter than the Junior, but 20mm higher and 100mm wider. Trim would have been more luxurious, as seen in the Ranelagh, but weight is expected to be slightly less than the Panhard Junior’s 620kg dry (no specific figures are published). This car also appears more finely resolved in its features than the Panhard, but the grille may have been too much for some customers, and likewise its higher purchase price of around 100,000 francs. It was a transitional model that was to be replaced at the October 1954 Paris salon.
In November 1953, shortly after the Rallye was released at the Paris show, an all fibreglass bodied sports car was shown at the Chimie show, with the new Rallye alongside. It was an attempt to simplify production and thus costs and selling price and featured what appears to be a one-piece body with liners but without any doors. Its construction was also noted as improving the rigidity of the car yet it remained a one-off.

After this Gaillard decided to create an all-new range and so hired for the task a talented new designer by the name of Max Berlemont. The initial car was a development of the Ranelagh Roadster. Its body was in fibreglass too, like the one-off November ‘53 car, which helped lower manufacturing costs and vehicle weight. Just how many were built of the new version is uncertain, but only one car seems to currently exist. Like all Callista and Arista models until then, it used a standard size Dyna Junior chassis and running gear. This meant the standard perimeter frame with engine slung ahead of the double (upper and lower) transverse leaf front suspension, and a transverse torsion bar sprung rear axle that was formed in the shape of a deep forward facing ‘V’ and pivoted on the chassis at its centre – and acted like a part beam, part trailing arm arrangement.

For the 1954 Paris salon, Arista showed off a pair of all new cars penned by Berlemont; the Rally Sport and the luxurious Passy. They had fibreglass bodies that were built by CG. The original prototype show car was called the Arista 55 and featured a bumper-less design. The Rally Sport that followed was essentially the same car, while the Passy looked a bit like a current Renault Frégate coupe with a lighter lower body line and an even more raised roof. The original Arista 55 show car with its
2130 x 1220mm wheelbase and track, was built on the outgoing Dyna X chassis. It became the new Rallye and weighed in at 650kg. Length, width and height were 4000, 1600 and 1350mm (157.5”, 63” and 53.15”). The 2+2 seat Passy had a 2350mm (92.5”) wheelbase and a length of 4220mm (166.14”), and weighed 700kg, but otherwise shared the same dimensions. Top speed of the Rallye was quoted as 140kph with a 42bhp engine while the Passy should have been no slower, just slower getting there! …being as it was just a little bit longer but no higher or wider. It appears that the original production cars that followed in 1955 to ‘57 were fundamentally the same as the 1954 Paris show car - the Arista 55, even though some material suggests that they used the Dyna Z chassis with its wider track.

Either way, both chassis used the same style suspension front and rear, with a steering rack mounted behind the front axle and utilising a short steering column. Brakes remained drums throughout both series, although later model Z’s got aluminium drums. The brakes were noted for their light but effective operation, which is typical of drum brakes if high temperatures can be kept at bay. In terms of cornering, roll was kept in check simply by having the high roll-centres front and rear – the rear being set by the beam’s centre pivot, while the front was kept high by having a marked degree of camber (downward slope from the centre chassis mounting to the wheel) in the transverse leaf springs.

Of course high roll-centres are known to create jacking, but the effects seem to be most apparent with short arm layouts found in most modern independent suspensions. As a result of the high roll centres, there was no need for anti-swaybars either front or rear. The Dyna Z chassis,
now being used, was characterised by its 1300mm track front and rear, and although the standard saloon wheelbase was 101", there appeared a number of variations of this. The Dyna Z chassis itself was quite similar to the earlier Dyna X and very different from the sporting Panhard CD which had its own chassis that when viewed from above resembled an I-beam, with the web of the beam being the backbone, and the top and bottom cross-pieces being used to mount the suspension at the rear and the whole mechanical package at the front. Naturally the front cross-piece was a deeper affair then the rear one. The Z, instead of this had two 87mmx2.5mm thick round tubes each side running between 130x2.5mm cross tubes each end. It would not have taken much to fit different length side tubes to create different length wheelbases.

Revisions were made to the Passy in 1958 to give it more rear seat room. It ended up with a 2400m (94.5") wheelbase and weighed approximately 750kg, while retaining the standard Dyna Z track of 1300mm (51.18"). It may have been the 1958-63 Passy that adopted the Dyna Z underpinnings, or as suggested the new PL 17 version which was the Z follow-on released late ’58, as from that date there appears no more mention of the Rallye. The Length of the Passy was now 4400mm (173.2"), width 1670mm (65.7") and height 1400mm (55.1"). It was a full four seater which looked not quite so well balanced with its higher roof profile. Price of entry was now 1530,000 francs, which was altogether too expensive for a car that had 42bhp and could muster only 135kph because of is relatively large size. By 1963 the 50bhp engine was available that Arista claimed provided a top speed of 150kph (93mph) and a 0:60mph time of 17.5 seconds. However, to clarify, the talk of production is a bit misleading for it is thought than no more than six Passys were built in this period. The number of Rallyes is not even mentioned! However, it has been stated that Gaillard wasn’t really all that interested in manufacture for even at 1050,000 and 1150,000 francs for the Rallye and Passy in 1955, there was no money to be made from producing them. His wife, he was heard to have said, would not have been too pleased!

By 1963 it was obvious that the car was becoming a little dated so Gaillard approached Jacques Durand to design a new version. He also hired Max Saint-Hilaire, later of BSH. Durand was made ‘Technical Director’ by Gaillard, so these last Arista’s were known as JD models. His original background was in precision engineering with a C.A.P. qualification. Shortly after WW2 he designed and manufactured a tiny 2.7cc petrol engine that would exceed 10,000 rpm. By the time Gaillard hired him for the new Arista project, Durand had already successfully manufactured two cars of his own; a rear-engined R4 powered gullwing door coupe and a FWD Dyna powered roadster called the Alta and Sera respectively. Both cars had been quite successful, with the Sera being especially so with well over 100 sales.
Durand designed a more modern looking car. However, there was a hint of Panhard DB HBR 5 coupe in its styling, a production model that DB manufactured successfully between 1954 and 1961. The DB was more rounded and solid looking, but actually weighed less at 583kg dry. It was also aimed at competition as well as road use and so like most DB cars was the product of aerodynamic thinking. However, the car Durand produced was also styled with aerodynamics in mind. It had a ‘lightness’ about it with subtly modern features for the time around the nose, but even more particularly at the rear where it featured a large lightly framed hatch, a style that preceded Marsonetto by 4 years and the Renault Fuego by 15 years. In fact, in profile the Fuego could be taken as an updated Arista JD.

Gaillard’s premises were grand and included a six story luxury hotel. It is said that Durand constructed the mockups and moulds on the sixth floor, and also produced the first two cars there side by side! Durand was a keen motorsport and performance car man who designed cars to go fast. For example, the open Sera with 42bhp 851cc Dyna engine was said to be capable of 160kph. S.A.V.A.M. was a separate company owned by Gaillard that was responsible for the sale of the Arista and German Maico cars and motorcycles that Gaillard also sold. S.A.V.A.M.’s original advertising for the new JD Arista listed three models or states of tune and finish. These were the more luxurious Coach Passy with a standard 42bhp engine and a 140kph (87mph) top speed, the 160kph Coupe Sport with the 50bhp Tigre engine and the 180kph (112mph) Sport...
Special that used the 60bhp Tigre engine (60bhp @ 5750rpm, 55 ft.lb @ 3500 (74 Nm), 7.9:1 c:r, 84.85x75mm bore/stroke giving 848cc, 38mm Zenith carburettor, 4-speed all syncro transaxle).

Durand and other French performance minded specialists at the time were still attracted to the little Panhard twin due to its light weight and good specific power output. For example, an early 1960s 848cc Tigre produced almost 71bhp per litre, and higher tuned variants could also be had although they were not sold in regular Panhard production models but were seen in some of the specialist cars like DB, Monopole and CD. It was also fuel efficient but being a flat twin was not inherently refined. Panhard could possibly have done more development in this respect, but failed to do so and eventually 'hit the wall' in 1967, and closed its doors to passenger car production but continued to manufacture military vehicles, which it has done so right up to this present day. This lack of refinement and the fact that austerity was not so evident by the 1960s meant people could get more power by simply buying cars with larger albeit heavier engines.

Mechanically the JD Arista also used all other parts from the concurrent model Panhard, including suspension, brakes and rack and pinion steering. It also included the PL 17 chassis,
although some reports list the car as having a tube frame, which may simply have been a tube-frame PL 17 chassis.

Dimensions for all three models were the same; no shortened, pared-back version for the Sport Special. These were wheelbase and track of 2260 x 1300mm (89 x 51.2“), length, width and height 4060 x 1590 x 1170mm (approx. 159.8 x 62.6 x 46.1“). All up weight was 620kg for the Coach and a little less for the Sport Special. Other engines were considered to make the car more appealing to the price-market it was trading in, but nothing really eventuated. Gaillard had had enough and closed the doors to Arista. Only 8 cars were built over the two years with the last being made by Saint-Hilaire which he powered with a German Ford V6 engine. All the same, Arista was considered a low-volume production model at the time and was sold as a factory car not a kit, but at 20,000 new Francs by the end of production, its premium price severely limited its sales potential; a basic Alpine A110 for example was 16,890 F, a 956cc A110 Tour de France version with a 170kph top speed was 17,590 F, while the standard Renault R8 Gordini saloon cost 11,500 F. After the Arista doors closed Durand joined André Morin, CEO of Sovam, and went on to build the R4 based Sovam sportscar before branching out entirely on his own with the mid-engined Jidé and Scora, while Saint-Hilaire went on to design and manufacture his own rear engined BSH which he launched in 1969.
**Specs: Arista Passy-Sport**

1958-1963

notchback coupe

FWD (front-wheel drive)

Length: 4400 mm / 173.2”

Width: 1670 mm / 65.7”

Height: 1400 mm / 55.1”

Wheelbase: 2400 mm / 94.5”

Front track: 1300 mm / 51.2”

Rear track: 1300 mm / 51.2”

Ground clearance: 200 mm / 7.9”

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1955 **Arista Rallye**

Engine: Panhard flat twin, ohv, Zenith 32mm

Capacity 851cc, **85 x 75mm**

Power: 42bhp@5000rpm

4-speed transaxle, R&P steering

0-60mph: 17.5 sec

Speed: 140kph / 87mph

Body: 2-door, 2-seats

Length: 4000mm, 157.5”

Width: 1600mm, 63.0”

Height: 1350mm, 53.15”

Weight: <650gs

Tyres: 145/13

Wheelbase: 2130mm, 83.86”

Track: 1220mm, 48.03”

Tyres: 145x400

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1964 **Arista JD**

Engine: Panhard flat twin, ohv, Zenith 38mm

Capacity 848cc, **84.85 x 75mm**

Power: 60bhp@5750rpm

4-speed transaxle, R&P steering

0-60mph: unknown

Speed: 160kph / 100mph

Body: 2-door plus hatch, 4 seats

Length: 4060mm, 159.8”

Width: 1590mm, 62.6”

Height: 1170mm, 46.1”

Weight: <620gs

Tyres: 5x13” 155/13

Wheelbase: 2260mm, 89.0”

Track: 1300mm, 51.2”

Tyres: 145x380

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Above: Coupe des Alpes tourer.

Right: Callista 1950 Le Mans.

Lower: Original Front and updated with Durand much later in life.