

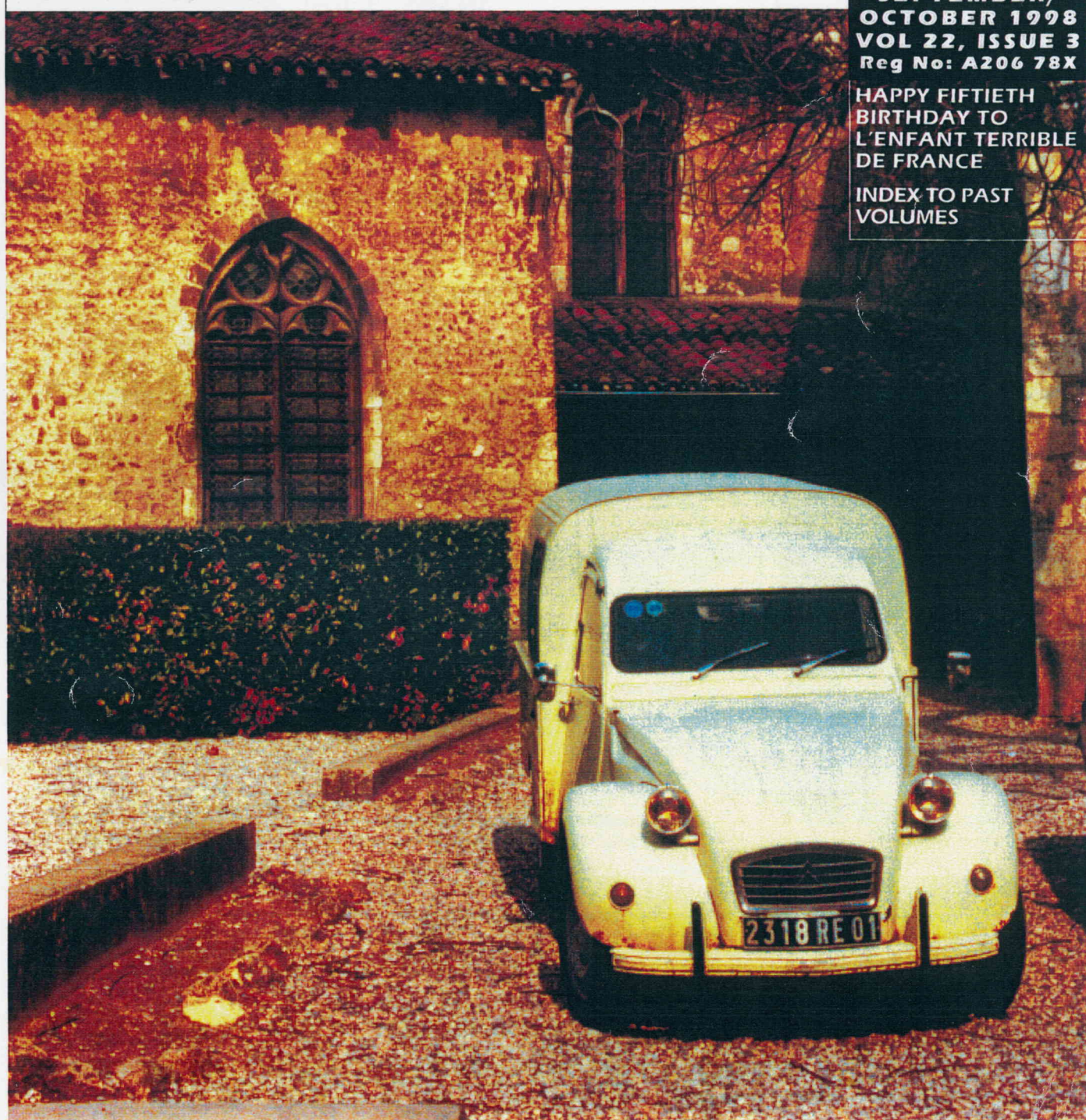
FRONT DRIVE

FRONT DRIVE — AUSTRALIA'S NATIONAL CITROËN MAGAZINE

SEPTEMBER/
OCTOBER 1998
VOL 22, ISSUE 3
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HAPPY FIFTIETH
BIRTHDAY TO
L'ENFANT TERRIBLE
DE FRANCE

INDEX TO PAST
VOLUMES



FRONT DRIVE

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OF AUSTRALIA INC.

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The views expressed in this publication
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Annual Membership	\$30
Overseas Postage Add	\$9



CCOCA memberships are due on the
25th of March, each year and run until
the following March.

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Every fourth Wednesday of the month,
except December, at 8pm
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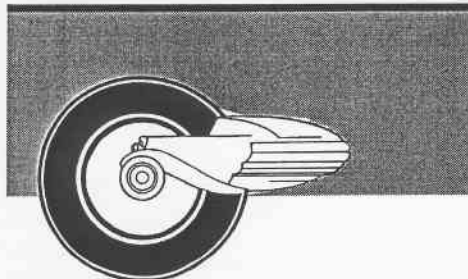
NANCE CLARK 1984
JACK WEAVER 1991

NEW MEMBERS

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from the desk

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1998 marks what some might suggest is the most important anniversary in the history of Citroën. Others may rank the event at a lower level of importance. But, no matter where you actually list it, the 50th Anniversary of the launch of the 2CV to a stunned motoring press and public must loom as a significant event. So, in this issue of Front Drive I am focusing on things 2CV.

Peter Simmenauer has been very busy on your behalf again. He has gone through every edition of 'Front Drive' for the last five years, or so, and compiled a full index. Published as the centre spread of this edition, you can remove it for handy ready reference in the future. Thank you, Peter for your hard work on this.

It is a very busy time for Citroën in Australia. You will already have seen a number of articles in the press about the Xantia Activa. Just around the corner, at the time I am writing, is the launch of the new mid-range Xsara, featured in our last edition, and the powerful Xantia V6. Information on these is in this edition of 'Front Drive'

The launch of the V6 Xantia generates an opportunity to look back on the great Citroëns of the past. Who better than the great LJK Setright — combining both knowledge and love of the marque to provide that review? The article is complemented by some wonderful illustrations from the brochures that launched these models that have defined the marque since the 1930s.

An apology: in the last edition of 'Front Drive' I credited Robin Smith for the photos that illustrated the article on OzTraction. I have been assured, in no uncertain terms, that while some of the pictures had Robin's finger on the shutter, most were the work of Sue Smith. Oops!

While you, the members, are getting your cars ready for the 1998 Combined Citroën Concours d'Elegance, Sue Bryant and I will be in the South of France. I promise that we will be thinking of you on that day — not! Just for completeness, we leave on October 9 and return on November 10. In our absence, if you have any material for the magazine that you wish to submit by email, please send it to Peter Fitzgerald, rather than to me, as Peter has kindly offered to publish the next edition of the magazine. For urgent membership enquiries contact Ted Cross.

One last point, you may have noted a new email address for me, which is leigh.miles@cussons.com.au, this is my email at work and as it runs every business day, it can be easier to contact me in a hurry on that email. The home email has changed now to Business_Direct@msn.com.au.

'Front Drive', for the Citroënist who wants it all.

Leigh F Miles,
Editor.



prez sez

Windjana Gorge National Park - The walls of Windjana Gorge rise abruptly from the wide alluvial floodplain of the Leonard River, in places reaching up to 100 metres high. The narrow canyon cuts through three and a half kilometres of weathered limestone in the Napier Range.

Well, here I am up in the Kimberleys W.A. + just finished a 10 day cruise on Opal Shell (48 ton ketch-yacht) in Barkley River + King George River + a bit of the Timor Sea. Doing all manner of things I've never done before like scaling 200ft cliffs etc. Anyway... before I left I went to the Annual CCOCA Parts Auction - great day + quite a few Bargains to be had. Checking CCOCA Calendar you will find a great range of activities - not to mention the looming Annual Concourse - as soon as I am back I will be getting stuck into a bit of polishing for that little Number. Regards Peter Fitzgerald.

PS - My beloved GSA is reluctantly up for sale due to the cost of some serious front end work needed on my Big 6 —————

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a-tractions

SEPTEMBER

PLEASE NOTE THIS EVENT WAS LISTED AS SUNDAY SEPTEMBER 12 — IT SHOULD HAVE BEEN : SUNDAY, SEPTEMBER 13 — OBSERVATION RUN TO QUEENSCLIFF

Check your navigation skills and see how many wrong answers you can deliver between the Westgate Bridge and Queenscliff. Join CCOCA for a fun day out at the seaside. We will meet at the Shell petrol station on the outbound carriageway of the Westgate Freeway at 10 a.m. — don't be late.

Afternoon tea and coffee will be at Jack and Kari Hawke's.

WEDNESDAY, SEPTEMBER 23 — MONTHLY MEETING
Canterbury Sports Ground, 8pm

OCTOBER

SATURDAY, OCTOBER 24 — COMBINED CLUBS DINNER
Here is an opportunity to get together with other CCOCA and CCCV members and chat about the delights of the marque, while enjoying Turkish cuisine and [they promise us] the visual experience of a belly dancer. And from previous experience, it will not break the bank. BYOG YOU MUST RSVP FOR THIS EVENT TO HELEN CROSS [03] 9819 2208 BY OCTOBER 16. NO BOOKING, NO CHAIR, NO FOOD...NO EXCEPTIONS.

SUNDAY, OCTOBER 25 — JOINT CONCOURS D'ELEGANCE
Como Park, from 11am.

Bring the family, bring a picnic and enjoy a day on the banks of the Yarra. There is a kiosk nearby, for the all-important ice cream. The Main Yarra Bike Path goes right past, so load the bicycles [or hire one on the day] and have a great family outing.

This is a joint event with CCCV and the competition will be tough.

If you have any queries regarding this event, contact the organiser — Ted Cross on [03] 9819 2208.

WEDNESDAY, OCTOBER 28 — MONTHLY MEETING
Canterbury Sports Ground, 8pm

NOVEMBER

WEDNESDAY, NOVEMBER 25 — MONTHLY MEETING
Canterbury Sports Ground, 8pm

SATURDAY & SUNDAY, NOVEMBER 28 & 29 —
PETANQUE PYRENEES

You are invited to join the Pyrenees vigneron at an Open Petanque Tournament. The vigneron from Taltarni, Redbank, Dalwhinnes, Summerfield, Chateau Remy...and many others will be participating in the Spring Tournament of the Pyrenees Petanque Club, at Avoca. Registrations [teams of three] commence 1pm Saturday with play commencing at 2pm and again on Sunday from 11am. Boules available for hire.

SUNDAY, NOVEMBER 29 — ROB ROY HILL CLIMB & CCOCA CHRISTMAS

Rob Roy Hill Climb, Christmas Hills.

Last year this was a great day, with a wonderful collection of Classic and Vintage Cars doing their best on this historic circuit. Once again CCOCA will have a prime position to see all the action and be seen by other car-lovers. Come and join us for the final event of 1998. Full details will be the next 'Front Drive', or contact Jay for further information in the meantime.

JANUARY 1999

WEDNESDAY, JANUARY 27 — TWILIGHT BBQ
With hope in our hearts for good Australia Day weather the bbqs will be lit at 7pm for an outdoor feast! Bring some food, the family and some frascati...or whatever. NOTE THE EARLY START TIME OF 7pm
Canterbury Sports Ground, 7pm

FEBRUARY 1999

WEDNESDAY, FEBRUARY 24 — MONTHLY MEETING
Canterbury Sports Ground, 8pm

MARCH 1999

SATURDAY & SUNDAY, MARCH 20 & 21.
Autumn Petanque Festival at Blue Pyrenees Estate, Avoca.

WEDNESDAY, MARCH 24 — ANNUAL GENERAL MEETING
Canterbury Sports Ground, 8pm

APRIL 1999

NATIONAL EASTER RALLY, APRIL 2 TO 5.
Start your planning for the 1999 National Citroën Event in Shepparton, Vic. Hosted by Citroën Car Club of Victoria, planning is well under way and details will be despatched as soon as they are available!

WEDNESDAY, APRIL 28 — MONTHLY MEETING
Canterbury Sports Ground, 8pm

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for your subscriptions, rally fees,
and those all important spare
parts in a more convenient way**

Many members will no doubt recall that earlier this year we were fortunate enough to have a visit from Mario Carollo, of Cargroomers. With the Club's joint *Concours d'Elegance* just around the corner it might be more than timely to highlight again to members some of the more significant points that Mario made on the evening. Derek Moore has kindly provided this information.

The first and most important thing is that you should wash your car often. Mario says you should wash it at least weekly. This minimises the build-up of dirt and other surface contaminants. He also notes, and this applies to many everyday tasks around the home as well, that you should not mix products when either washing or polishing your vehicle. You may not realise it, but these products contain a range of chemicals, carefully formulated to aid you in successfully undertaking the task. By mixing products you can dramatically alter the chemistry and the results can be...well, let's just say not what you were expecting.

'Back and forth' or 'round and round'? Whilst many products — particularly polishing products — recommend a circular motion, Mario does not. Back and forth is most definitely the way to go, in both the washing and polishing processes.

Mario uses and recommends Autoglym products, available from quality automotive stores. In particular their 'Super Resin' polish, which is a combination cleaner, polish and sealant, come highly recommended. It contains no silicone and Mario suggests that two applications will give a better result than trying to do the same thing with one thick application.

For rubber he suggests Autoglym 'Vinyl and Rubber Care' and for metal [chrome and stainless steel] Autoglym's 'Metal Polish' makes the running. He also suggests a German product, 'Autosol', is very good.

Paint protectors, which are readily available commercially, should be used only on new paint finishes. They are not recommended for that 50 year old paint on your Traction.

Of course, you could always join the lazy ones and arrange for Mario to come to you and carefully detail your investment just in time for the *concours* — President Peter certainly will be as would I, if I was going to be around. But, if this is your plan, better book in early with Mario as I am sure there will be a queue. You can ring Mario on 0419 881 439 to arrange an appointment. Be sure to mention the Car Club when you ring him. [Mario did a superb job on my Visa Cabriolet for a non-Citroën *concours* earlier this year. Ed.]



Tin Snails *are go!*

As the Citroën 2CV celebrates its half-century, we examine the enduring appeal of the deckchair on wheels.

Go out and hug a tree — the Citroën 2CV is 50. The tin snail — also known as the deckchair on wheels, or an armchair under an umbrella — celebrated half a century in late May, when over 5,000 2CVs from around the world gathered near Paris for four days of feasting and exchanging 'Nuclear Power, Nein Danke' stickers.

Even the French, who generally seem to regard cars as little more than conveyances designed to get them from posh restaurant to paramour's bedroom, got excited. The tin snails were given permission to parade down the Champs Élysées, an honour normally enjoyed only by visiting dignitaries or invading foreign powers.

Quite what it is that grips the 2CV owner with such fervour is beyond most ordinary people. The garden shed on wheels has fan clubs all over the world, with bi-annual world meetings and rally raids across some of the most inhospitable regions of the planet. Conspicuously short of late 20th century motoring essentials such as electric windows, atomic clocks and wood-effect cup holders, it's especially popular with green-minded folk [best not mention exhaust emissions, though].

But that tin snail sobriquet is not unwarranted. A 425cc 2CV of the Fifties had a top speed of 77kph and in the 34 seconds it would take the Jaguar XKR to accelerate to its top speed of 248kph, the 2CV would have just got to 64! Even that pitiful performance must have seemed fast to owners of the very first 9bhp, 375cc cars.

If you have ever driven a 2CV you will of course recollect that round-shouldered rocking motion adopted by deux chevaux drivers as they encourage their charges up freeway ascents. There's the weird sensation of leaning into the corners while the

in the 2CV — it has rightly been called the only car of the future we have.'

'Initially for many, the appeal of the 2CV is its shape and huge sunroof,' waxes Day. 'But when you have



rest of the 2CV leans precipitously outwards. Owners also talk loudly — necessarily so, above the noise of the air-cooled engine — and have hardy constitutions, which allow them to drive with the windows open in all weathers.

Graeme Draper of Garage Levallois and Simon Day of the Tin Snail Company were asked to identify the appeal of the 2CV. 'For a mid-1930s design, it was astonishing,' says Draper, somewhat enigmatically. 'Most modern vehicle design has not even addressed the problems solved

accepted those virtues, the 2CV's real character and timeless appeal shines through. In an age where motoring is becoming increasingly costly and complicated and car designs are barren of true originality, the 2CV offers refreshment at an oasis of simplicity, fun and practicality.'

Blimey, I never knew there was so much in it. Still, before the soaring hang glider of 2CV expert opinion becomes tangled in the electric cables of motoring journalist cynicism, I should admit that my family, although never owning a 2CV, have always loved the idea of



one. We called them the corrugated cars, and as children it was hard not to love a car whose rear seat came out and became a sofa. Not even Rolls Royce owners could picnic in such style.

Briton Chris Roffey took coals to

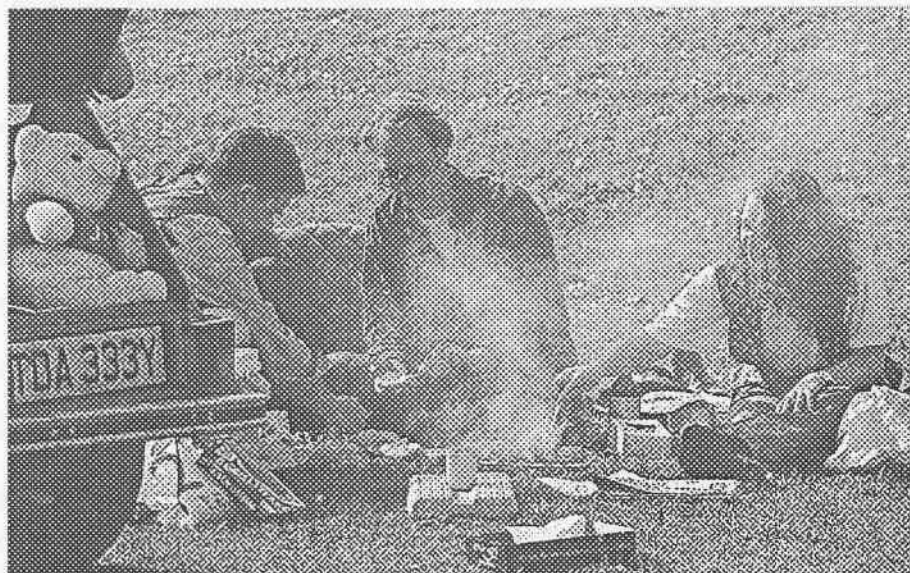
rescue him from the advanced clutches of deux chevaux-dom.

It is hard not to smile at the 2CV — unless you are Citroën, that is. Almost inexplicably, this half of the Peugeot/Citroën combine has tried to distance itself from its quirky, innovative past,

as typified by the 2CV. There's no doubt that a modern Citroën, notwithstanding the leery Claudia Schiffer/Xsara coupé advertising campaign, is a perfectly acceptable car that sells in huge numbers. But, will any of Citroën's current cars inspire such levels of affection and respect in 2048? Some people think that Citroën should be designing a simple, effective 2CV replacement like Chrysler's Pronto concept [featured previously in Front Drive], but so far the firm seems unmoved and unamused.

For more information of seeking 2CVs in the United Kingdom, contact Garage Levallois [001144 1243 555556] or Tin Snail Company [001144 1903 823880].

Andrew English
First published in The Daily Telegraph, May 1998.



Newcastle when he moved his entire family across Paris in his 2CV van to take up a new appointment. The van is British registered,' he said, 'and when we drove around Paris, people stood at the side of the road and clapped. The French don't keep their old cars like the British and they seemed so pleased that someone had bothered to rescue an old 2CV van.'

Last European summer Roffey took his whole family on a month-long 2,500km round trip to Iceland with 50 other European 2CV owners, and one suspects it would take a Heart of Darkness-style trip up the Seine to



L'enfant terrible

For years the French have carried on with the process of mercilessly running their cars into the ground. Whether a tool of trade or merely a means of transport [mostly in vivid hues such as beige, gray or gunmetal and with the most basic specifications allowed in any market worldwide], our Gallic cousins have subscribed to the philosophy that cars are bought new and run until they drop some 20 or more years later.

So, if the French are not too bothered about cossetting their old *bagnoles* and calling them 'classics', what has got under the French skin when it comes to the lowly 2CV?

Fifty years ago this year, when it was first launched to a disbelieving post-war France, the utilitarian and idiosyncratic conveyance that was the *deux chevaux* was derided almost as soon as the dust sheets were lifted. Even in those lean, war-torn times, its appearance could inspire hatred and ridicule in some and intrigue and admiration in others. Then, as now, it was a car that imbued passion, of one sort or another.

To call the 2CV a car at all was to describe it in the loosest possible sense of the word. It was a vehicle designed from nought upon a clean sheet of paper and with the minds of its creators purged of all conventional wisdom on the subject of automotive problem-solving.

In much the same way as the genius of Corradino d'Ascanio created the brilliant Vespa, drawing on aviation technology rather than accepted motorcycle design, so too did Pierre Boulanger's team at Citroën find novel solutions to existing problems in their quest for an automobile for the massive, impoverished farming community.

The result was a creation that was massively over-engineered in order to be 'idiot-proof' [the suspension bearings, for example, are four times the size of those found today on Citroën's range-topping XM] and yet was light enough to deliver outstanding fuel economy. By putting heavy weight mounted on springs against each of the road wheels, the designers were able to simulate 'big car' ride, yet give the car sure-footed handling. Even the tyres, by Michelin, were specially formulated for the 2CV.

Although the ride and handling of the *deux chevaux* were exceptional, the propensity for the car to roll on corners was legendary. At one time, Citroën is reputed to have offered, rather rashly, that if anyone succeeded in rolling their 2CV right over, a new one would be supplied gratis!

Thus, the *deuche* was the property of the ordinary French citizen: a vehicle that was created solely for his convenience.

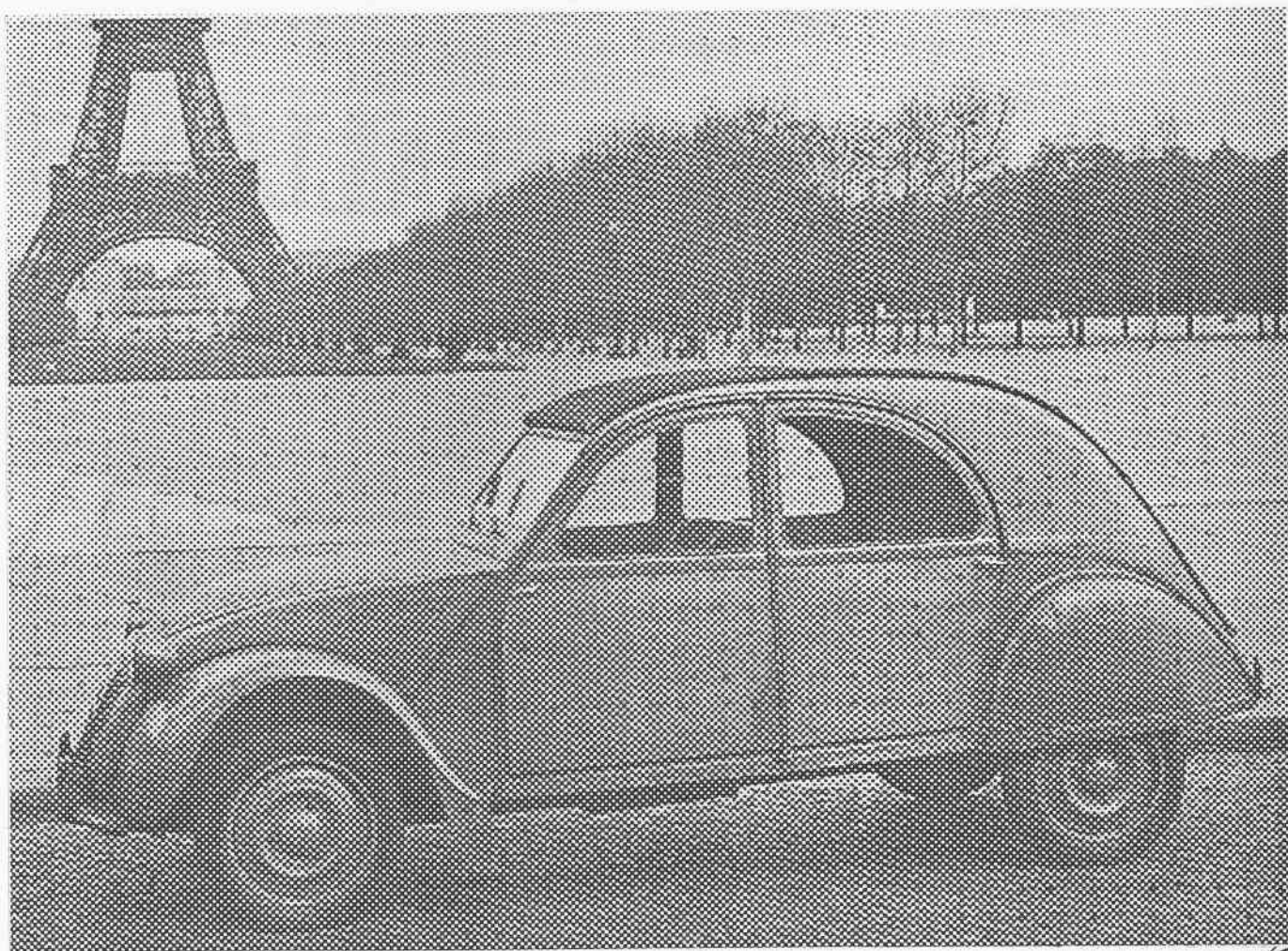


Even in the early days, when the waiting list for the 2CV grew to six years and cars were being earmarked for doctors, vets and other professionals, the aspiration of the *paysans* for *deux chevaux* ownership was enduring. When the long-awaited little Citroën was finally delivered, there would have been enormous pride and satisfaction.

Like a newborn child, the 2CV was

welcomed into almost every family in France, the moment of its arrival a cherished memory. It developed a few irritating habits as it grew older, and it is now a rather eccentric 50-year old. Yet in the eyes of its true parents, the French, the *deux chevaux* is still a gurgling, bouncing baby.

Simon Day
The Tin Snail Company.



BUY A RED ONE

Graham Draper of Garage Levallois and Simon Day of the Tin Snail Company give their best 2CV buys.

1950-1960

The best cars. Paris-built, good steel and the best features. Left-hand drive cars the best.

1960-1975

Not bad, do not let drum brakes put you off. Best buy is the 1975 2CV6.

1976

Some of the worst-ever 2CVs, due to cheap, corrosion-prone steel. Best is the special-edition Spécial Orange Teneré [SPOT].

1977-1978

Fair cars if looked after. Avoid white and light colours.

1979-1981

The front windscreen frame, chassis and rear panels rot.

1982-1984

Good years for late cars. Red-painted specials and early black and burgundy Charlestons are best. Do not buy rot-prone Beachcomber specials.

1985-1986

Specials are OK, go for red-painted, Paris-built cars. Dolly special has corrosion-prone rear panels and floorpan.

1987-1990

Paris production ceased in 1988. Do not buy a poor Portuguese-built car, look for something older.

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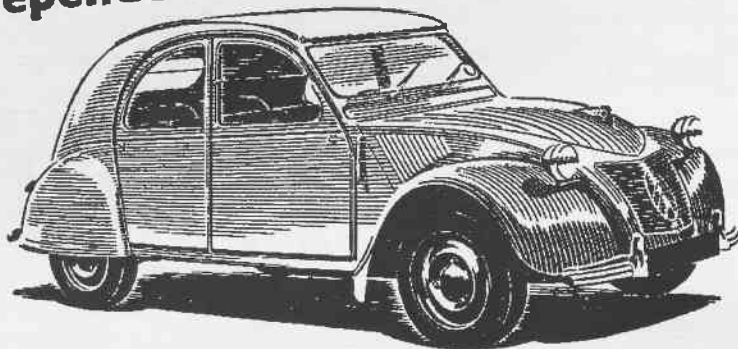
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France's winter of discontent

France's 1995 Winter of Discontent — Brighter Days Ahead?

For the tenth day running the Parisian public transport system was at a standstill. The strike movement had already spread from public to private sector workers. Students protesting at the overcrowded conditions at their universities linked arms with demonstrators from SNCF, Francé Télécom, Renault and other on this cold, gray December morning in 1995.

Sitting in a street café just behind the huge Printemps shopping centre on the Place d'Italie, Anne-Marie was sipping a late-morning café crème and reading the paperback she had picked up in the Hachette book store after her drive up to the capital in her 1976 Dyane. The book caught her eye because on its cover was that photograph of the Chinese toddler making a victory sign, the one Citroën used a few years ago to advertise the AX. She read the title: 'Money has no ideas, only ideas make money'. Then she saw the authors name — Jacques Séguéla.

Anne-Marie remembered his earlier works including 'La Terre en Rond' in which he told, with his friend Jean-Claude Baudot of the adventures of the 2CV drive around the world in 1060.

When Séguéla had become an advertising guru, he had written a book called: 'Don't tell my mother I'm in advertising; she thinks I'm a piano player in a brothel'.

The author was a good friend of former French President François Mitterand.

Séguéla's dynamic, creative ideas seemed to Anne-Marie that morning to be in stark contrast to the current atmosphere of authoritarian governmental and presidential attitudes. To her the austerity measures proposed by the government were too heavy with common sense and too short on imagination and consultation. President Chirac's promise of a presidency of consensus politics during the presidential election campaign, just six months before, seemed a long time ago.

Her confidence in Chirac, which had never been very great, had first been rocked by the unilateral and apparently random decision to resume nuclear testing, and now an imposition of crushing Social Security reforms without consulting the citizens had outraged her as it had millions of her compatriots. It was becoming increasingly clear in her mind that the Right was going to have to accept the choice between confrontation and consultation. But, for the moment there was a political stand-off. This was the French way of political expression by the masses. 'Tout le mode dans la rue'. If things hotted-up it could turn to 'Tout le monde aux barricades'.

Now absorbed in the book, Anne-Marie escaped from the café's busy atmosphere, with its odour of espresso and cacophony of shouted customer orders, as she waited for midday and the start of the march. She read through some of the chapter headings:
To create is an adventure...
To create is to think inside-out...

To create is to accept mistakes...
To create is to see things through to the end...
To create is to make people dream...
To create is to predict...

Anne-Marie was uplifted by the contents of Séguéla's concise book and felt twenty years old again.

That had been her age in 1968, and the current atmosphere of protest took her back to those heady days. As she joined the marchers on the Place d'Italie, she popped the keys of the Dyane into the pocket of her off-white rain coat.

The beige Dyane was the second of the type Anne-Marie had owned. The first had been a birthday present from her parents in 1968. Her father, a notaire in a small town on the Contentin peninsula, had insisted that she accept the car for the long weekly drives from the home town to university in Paris.

She drove the first Dyane flat out every week end for four years, its 435cc engine taking the dazzling white car with its red cloth seats and upside down aluminium door handles to dizzy speeds unmentioned in the handbook.

Those drives in '69 were memorable for the quantities of Gitanes cigarettes, and on occasion other vegetable matter, smoked by her fellow students who, car-less, were always pleased to accept a lift back to Normandy. Strange aromas filled the car. Music from Dylan, Baez, Leonard Cohen and Gainsbourg struggled from the single Philips speaker propped near the gearlever, to pierce the engine noise coming through



France's winter *of discontent*

the heater tubes, and political banter being exchanged by five freed-up minds.

That little Dyane had seen her through the university years, and the first four years of her career as a primary teacher in a small provincial town. After the birth of her second child, she and Jean-Paul, her geography-teacher husband, decided the car was now getting on in years. Anne-Marie's questionable parking skills had done little to enhance the appearance of the bodywork.

A trip to a Citroën dealership to buy a 'Petite Citroën' in 1976 was a

memorable experience. The couple had seven models from which to choose; 2CV Spécial, 2CV4, Dyane 6, Méhari, Ami 8 and Ami 8 Break. The salesman offered them a trade-in deal on the trusty '96 Dyane, and left them to read a brochure which the couple immediately realised was of rare literary quality.

Pages four and five showed three air-brushed 2CVs crossing a sand dune desert landscape, with Vert Bamboo 2CV6 leading the way on chunky tyres. Over the page was a Méhari in African savannah complete with giraffes and the car's passenger leaning on the windscreen frame

photographing the wildlife. Further on in the brochure was a yellow Ami 8 in a South American scene, with gauchos and a cattle muster.

It was page ten which sold the couple on their new car. The alpine landscape draped in snow with a sparkling red Dyane 6 in the foreground. They flicked to the back of the brochure and saw that this year the Dyane had disc brakes. The only detail was to choose the colour. They found the bright red not to their liking, and opted, like almost every other customer for a neutral beige.





The new car drove every bit as well as the brochure had lyrically promised, giving its owners the impression it would go anywhere. The long holidays a teaching profession affords meant that the couple could make full use of the Dyane's adventurous spirit. Over the next two decades they went to almost every European country, their expeditions ranging further as the European Community expanded. More recently, forays had been made into former Eastern Bloc countries. The Dyane accommodated at first toddlers, then young children and afterwards increasingly independent adolescents on the comfortable check cloth folding rear seat.

The Dyane had never broken down. Not once in nineteen years and one hundred and eighty-three thousand kilometres. Jean-Paul read somewhere that 1,443,583 Dyanes were produced from 1967 to 1983.

The bodywork had never been polished, and had begun to rust after a dozen years. Mechanical maintenance by Citroën, though, was always scrupulously done. By 1995 their Dyane was probably the best-running, worst-looking twenty years old car in their home town. This

suited the post-hippy non-materialistic ethos of the couple, so typical of 'la génération '68'.

This December day, as Anne-Marie marched with a hundred thousand protesters towards Place de la République, she knew it was time to let the Dyane go. The four hour motorway journey would have been comfortable, but for the melting snow dripping from a rust-holed windscreen panel.

Tomorrow she planned to give the Dyane to a friend who she knew was about to rebuild a 2CV. In true 'Petite Citroën' spirit, the friend was planning a trip through a desert on a far-off continent. Raid Australia '96 would take the Dyane chassis and running gear to a part of the globe Baudot and Séguéla had missed. Anne-Marie's Dyane would shed its rusty shell and dented bodywork and live again. She smiled as she thought; 'Créer, c'est l'aventure...'

As night fell and the demonstrations dispersed, Anne-Marie sat locked in the worst traffic Paris had ever seen. An endless trail of rear lights stretched to the Périphérique interchange and beyond. She was headed for the Porte d'Italie and the

motorway south. She was tired, but elated to have taken part in the demo.

She decided to have a quick clear-out of the parcel shelf in preparation for the hand-over tomorrow. At the bottom of the pile of maps from twenty years of travel, she found a folded brochure; 'Les Petite Citroën 1976'.

It had been unopened since the car was new. Tonight's traffic jam gave time to read the test of the brochure for the first time since 1976.

It was sharp advertising text, with a flair that she immediately admired. The first half of the brochure was literary and almost poetic, the second half brisk and technical. The language of the first part balanced adventurous dream and technical realities. When she read the small print on the back page she understood.

Half-hidden on the time-worn fold next to the one remaining staple which held the brochure together, she made out in the cosy glow of the Dyane's courtesy light the one word, a name which twenty years' rough and tumble of parcel-shelf life had not quite erased. A name which explained it all: 'SÉGUÉLA'

Alan Brown

La Terre en Rond. Editions Ouest-France, reprinted 1990. ISBN 2.7373.0695.7

L'Argent n'a pas d'idées, seules les idées font de l'argent. Editions Seuil, 1990/1993. ISBN 2.02.019942.4



TECHNICALY

Both these cars are taking the same corner at the same speed, but the one on the right is fitted with Citroën's clever active anti-roll system. LJK Setright goes flat out — literally — in the sharp-handling Xantia Activa.

What are the things that every car should have? Assuming the basic rigmarole of an engine and more than two wheels and all the other things that we take for granted; assuming that the level of competence displayed by the majority of cars nowadays is so high that we ought to be looking for an approach to perfection; assuming that, if these things caught on, they would soon all be affordable — what is it that some manufacturers do that every manufacturer ought to do?

Anti-lock braking would appear at the top of my list, because braking skills are the most difficult to acquire and impossible to perfect. Then comes automatic transmission — the omnivalent Torotrak if you allow things in from the prototype stages, Van

Dorne's CVT if you do not. Next I would list power steering because, since the Citroën SM, nobody has made a car with steering geometry that does not involve jacking up or lowering the front of the car as you turn the wheel, and because nobody dares to make steering as high-g geared as power would make possible: the way NSU did it in the Ro80 was good enough, and the way Citroën did it in its Activa 1 prototype was almost too good to be true, but lots of people do it very well. Then there is four-wheel steering done as Honda has done it; after that four-wheel drive, probably as Audi has done it. Add hydropneumatic suspension after the manner of Citroën, and air-conditioning, and the list is almost finished. Until this autumn it was

essentially complete, but now there is another item to add: the active anti-roll system of the Citroën Xantia is something so good that every car should have it.

Without it, what happens? Centrifugal force [and do not, pray, interrupt with that old chestnut about centripetal force being the only true one] affects a car negotiating a corner or bend by applying a lateral force, nearly all of which can be treated as being applied to the centre of gravity of the sprung mass. In most cars this centre is about 530mm above ground level, but it can be as high as 580mm in an S-class Benz or the new Omega/Commodore. It is seldom lower than the 486mm of the Honda Prelude, although the Caterham is much lower. Invariably



lower than the centre of gravity, whatever the car, is the roll axis, a line drawn through the instantaneous roll centres that are defined by the front and rear suspension geometries.

Because of that distance between roll axis and the centre of gravity, the lateral cornering force [which is equal to the sum of the cornering forces developed by all four tyres] creates a roll couple, an unbalanced load which tends to push the car sideways so that it rotates about its roll axis. If the car is turning left, it will roll to the right. Its occupants will be lifted slightly in their seats and shoved to the right, the driver in particular being tempted to hang on top the steering wheels to keep himself in place, but with potentially dire effects to the behaviour of the car should he move the wheel injudiciously in the process.

The behaviour of the car is likely to be devious anyway, because its angle of

roll is equalled by the angles of deflection of the suspension, and therefore by the angular tilt of the wheels and tyres. Since a tyre develops its maximum cornering force when it is approximately perpendicular to the road surface, any tilt away from this normality will bring about a reduction in grip and a tendency to drift. If the suspension or steering geometry is imperfect [which stressed rubber bushings can achieve, even if the static geometry is correct], the tyre's misbehaviour may be aggravated by the intervention of spurious steering angles as the system distorts.

What can be done to improve matters? A popular palliative is to arrange the suspension geometry so that the outside wheels and tyres, which bear the brunt of the work in cornering, remain upright as the car rolls. If they do so, then when one wheel strikes a bump while the car is driving straight

ahead, that wheel will be tilted sharply inwards at the top, not only generating an unwanted lateral [steering] force but also generating a violent gyroscopic precession that can be very difficult to restrain without affecting the wheel opposite.

So perhaps the thing to do is to limit the degree of roll? You could stiffen all the springs, for example, so that there would be more roll resistance, but that would make for a hard, harsh ride which could be detrimental to tyre adhesion, and if done to excess it would merely cause the car to roll about its outer tyres, lifting the inside pair off the road, and ultimately perhaps rolling right over onto its roof. The same rollover could be induced by revising the suspension geometry so that the roll axis were much higher, because then the suspension would develop jacking forces which would lift the car bodily off the road and tip it over its outer tyres.



Talking TECHNICALLY

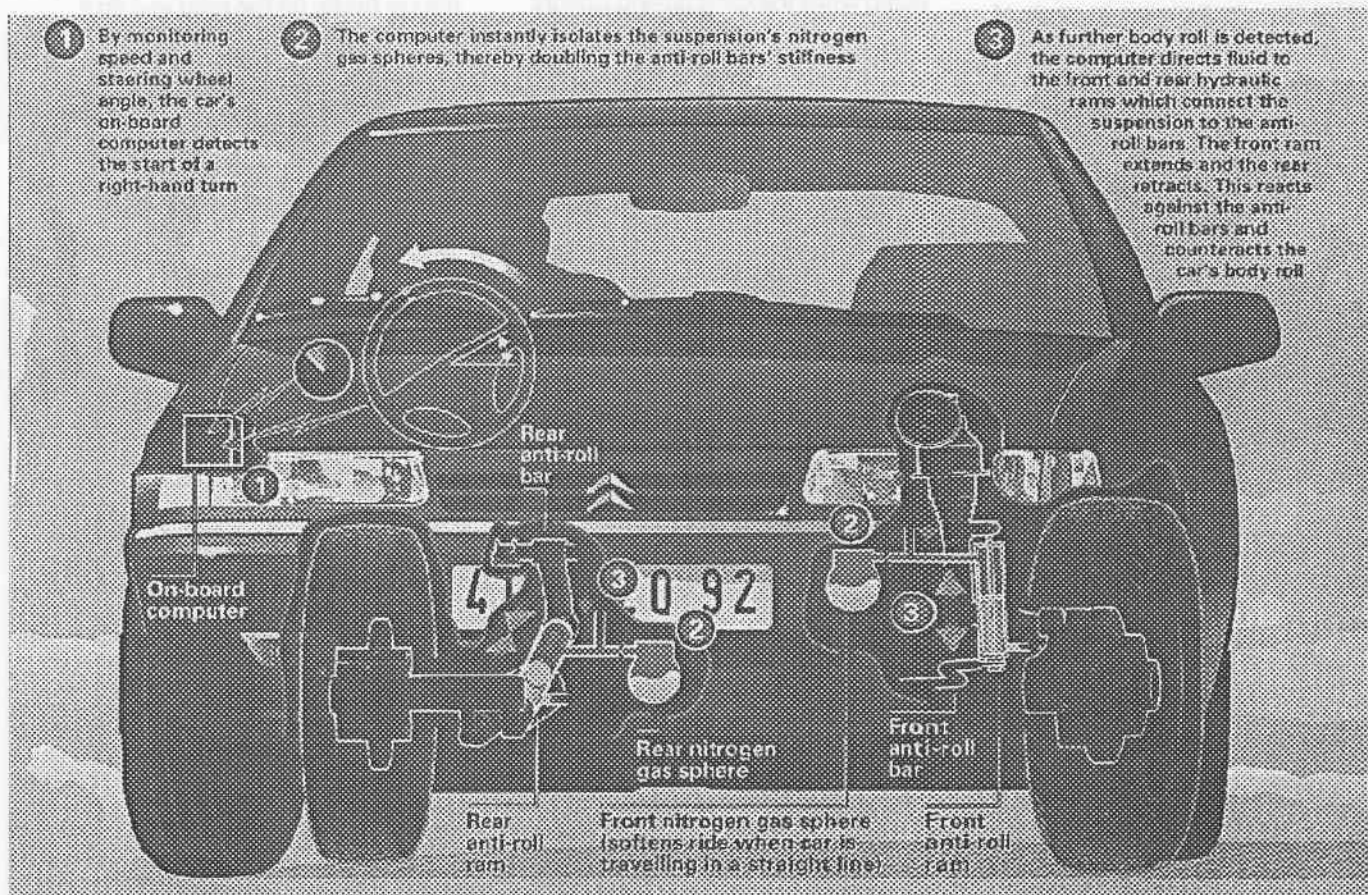
The familiar way of limiting roll is to fit anti-roll bars, almost always in the form of torsion bars which are clamped to the suspension on opposite sides so that they allow the wheels to rise and fall together [as when bumping over a transverse ridge] but resist any attempt of one to rise when the other is falling. This gives the car stiffer resistance to roll than bump, effecting a modest compromise between ride comfort and roadholding; but it prevents the suspension from being as independent as it claims to be.

Furthermore, since the torsion bar is a form of spring and is never effectively damped, it has its own natural tendency to rebound to be taken into account: it is this oscillation that causes most cases of roll-rock, which can appear not only in a long bend but even on a straight road when one wheel hits a bump or falls in a hollow. Worse still, the anti-roll bar transfers

load from the inside to the outside tyre, and this usually impairs the cornering performance of the outside tyre, while doing nothing to help the inside one which may barely be touching the ground.

Altogether not a pretty prospect. Roll has been a pain since the earliest days, destabilising the car and making occupants feel very ill at ease because they can sense, all the way from the eyes to the buttocks, that the cornering car is a vulnerable car. It would be so different if the car tilted the other way, like a motorcycle or an aeroplane: driver and passengers would be forced into their seats, not out of them, and the sensation of sideways heave would be reduced correspondingly. To do that with a car is actually possible, but the inclination would be just as inimical to good behaviour as the tilt produced by conventional roll, and for the same reasons.

All things considered, the best the car can do is to remain on an even keel — and that is what the Citroën Activa does. The straight-line ride remains exceptionally comfortable, as is to be expected with the Citroën system of nitrogen springs and hydraulic control of pitch and ride-height. Anything tending to turn the car from its course — a cross wind, a bump, a pot-hole — will prompt the suspension to stiffen itself in such a way that the car stays sternly horizontal, so that no corruption of the suspension geometry can prompt a tyre or two to deflect the car from its proper path. If it is the driver who chooses to divert the car from its headlong career, that same instant stiffening of the sinews allows the car to follow the steered course without any roll-induced vagaries, because no roll will be induced. The driver and passengers continue to sit their full weight on the seats, the shape of which retains its full effectiveness in



restraining lateral displacement of their bodies. It imparts a wonderful feeling of assurance and of composure; and it makes the Xantia Activa a quite remarkable car to ride in or to drive.

This anti-roll system has been a long time in coming. Citroën first attempted it in an experimental DS back in the days when that most remarkable of history's cars was current; but those were the days before commonplace computers, and to achieve mechanically what can now be done electronically was too costly and too complicated for public consumption. In 1991 Citroën tried again, and when I drove the Activa 2 prototype I identified its active anti-roll system, governed by electronics and activated by hydraulics, as the most promising of its numerous prototypical features, one which could clearly be put into production. In the newest, range-topping version of the Xantia, it has at last happened.

The best existing Xantia, the VSX with its six suspension spheres of trapped high-pressure nitrogen, is already more resistant to roll than others of its class, while retaining a more comfortable ride than most others regardless of class. When cornering forces are sensed, valves shut the central spheres [one at each end of the car] out of circuit, thus stiffening the springing so that it is more resistant to roll than to bump. It works well, but it is a passive system that takes time to work and is therefore not fully effective.

The electronics of the Active do not wait to measure lateral acceleration. It is forecast, deduced from a measured assessment of road speed, steer angle and the rate of steering input. Once again, but now in good time, the ride-softening centre sphere is isolated; once again the hydraulic fluid, which has been free to enter it and heave against the diaphragm retaining the nitrogen, is trapped and has nowhere to go. Now, however, the incompressibility of the liquid [which allows it to act as a flexible and frictionless pushrod for such jobs as self-levelling] is exploited in a new way.

This Xantia has two anti-roll torsion bars, one at each end of the chassis,

but only one end of each is firmly clamped to move with its associated wheel. The other is loosely linked by a small hydraulic ram, into which hydraulic liquid can normally come and go with only a little resistance from the connecting conduits — in effect, them acts not only as an elastic link which virtually halves the stiffness of the bar but also as a mild damper to stop it from going into free oscillation. When the electronics shut off the central sphere and the liquid is trapped, it transforms the little ram into a rigid link, and the torsion bar now exerts its full strength in resisting roll.

Despite this doubled opposition, the car can still roll to some extent, but there is a sensor on watch to detect this, and as soon as the roll amounts to a mere 30 minutes — half a degree, an angle so trivial that neither eye nor stomach could detect it — hydraulic fluid at high pressure is valved into the two rams. They now act like jacks, maintaining the level of the body so that no further tilting occurs. The car, and likewise each wheel and tyre, remains upright; its behaviour, freed from the intrusions of roll steer, remains consistent.

There need be no time lag between the onset of each phase; both can be triggered simultaneously, if the electronic mastermind sees fit. This alone can make the Xantia Activa very responsive to the steering, but the absence of roll [and therefore of adverse tilting of the wheels] allows a further refinement. It enables the car to exploit tyres that can give of their best only when kept perpendicular to the road. In the Xantia, this means that the usual Michelin MXV3A from the Pilot H [for Harmony] range is replaced by a dimensionally similar XGTV from the Pilot S [for Sport] range, mounted on a visually different wheel to draw attention to the distinction. The former tyre is not one that I like; the latter is, and it imparts a degree of lateral response to steering inputs that is beyond the abilities of lesser tyres that have to be squidgy to accommodate camber change. It is this refinement that makes the Activa so wonderful to drive.

Part of my brief, when I went to drive the new car in France, was to establish photographic evidence of the difference in behaviour between the Activa and the existing VSX. The idea was to drive the latter as fast as possible around a corner where it would roll appreciably, and then drive the Activa through the same corner at the same speed. We found a right-angled right-hander in a country lane where, by holding a tight line instead of taking the wide approach that a fast driver should, the VSX felt decidedly wayward, near enough to its safe limit, at 85kph. At the same speed the Activa went through the corner with such ease and tight, on-rails precision that it sometimes kicked the rough stuff on the inside edge of the road, which the VSX usually missed through drifting wide.

Whatever degree of roll the pictures reveal, no picture can express the difference in feel, in assurance, in sense of safety. The VSX already steers more nicely than other cars, needing less wheel-twirling on winding roads; the Activa makes it feel soggy by comparison. Driving the Activa on a straight, level road at about 105kph, I tweaked the steering wheel to the right as fast as I could, taking perhaps a quarter of a second to pass through 30 degrees of deflection and back again to the straight ahead position. As I tweaked the wheel, the car tweaked, as I straightened it the car straightened. It was a fantastic symbiosis of chassis and tyres. Trying this test in other cars usually results either in roll without turning, or in response at all...

This system is now available on the Xantia in Australia. At some time, the same system [Citroën calls it SC.CAR, a ghastly acronym that I mention only for the sake of completeness and hope never to mention again] could be applied to the XM, or to any future car using the Citroën hydropneumatic suspension. Some day, perhaps all cars will be built like this. Some hope...

LJK Setright.

This article first appeared in 'Car', January 1995.



in the **NEWs**

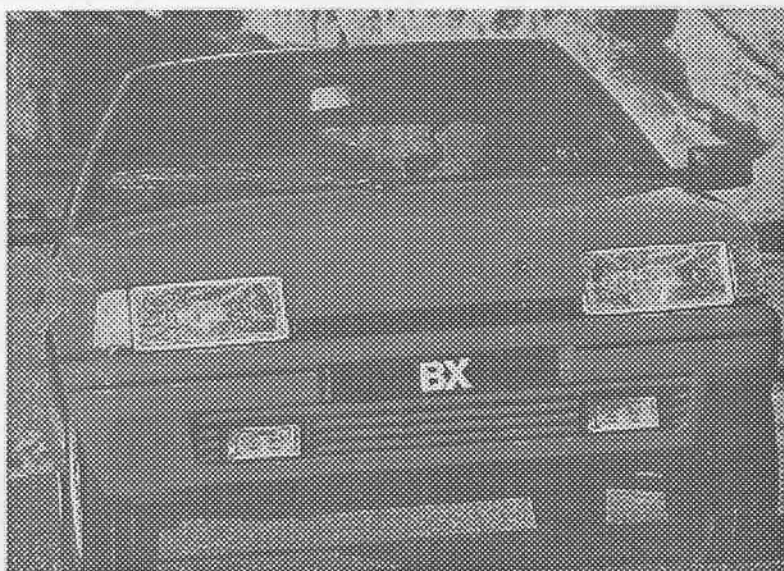
Since the last issue of 'Front Drive' it has been a busy time for Citroëns in the press. With 1998 being the celebratory year for the 2CV there has been a deal of coverage for the model. In the August edition of 'Wheels' the 2CV was idealised by Paul Cockburn as 'basically brilliant'. He describes it as a 'unique motoring phenomenon...that outlived its function as a farmer's beast in the '50s, rose again as a symbol of revolution in the '60s, an alternative statement in the '70s and an icon of intelligentsia in the '80s.'

September 'Wheels' compares the benefits of the Citroën Xantia, Honda Accord, Subaru Liberty and VW Passat. Unfortunately, the Subaru wins the comparison, with four stars, but the Xantia is just behind with three-and-a-half. The overall summary for the SX [base model] Xantia is very good. 'It's not cheap. But alongside the Accord and Passat, the SX isn't such a bad buy at the price. The performance is zesty enough to get among two-litre front runners and to put the 2.3litre Honda on notice. The accommodation is first class in all respects, most notably for really good seats, very roomy and comfortable rear bench, and an equipment level with all mod cons. The handling's composed and the fluidly smooth ride justifies the unique suspension. Xantia has quirks of course, but so few and minor as to instil character, rather than concern.' [I am not sure the lack/loss of character is a good

thing, but it should certainly ensure increasing sales for the new model Xantia. Ed.]

'Wheels' and 'Motor' both have articles on the new Xantia Activa, now available for \$46,990. This places it some \$2,000 dearer than the Exclusive and just \$490 dearer than the similarly low turbo

Corrado [£2,700]. More readily available here is the Saab 900 Turbo, Mark 1 Toyota MR2, Alfa Romeo 164, Mercedes 190 2.3-16 and Mark2 Golf GTi. The article progresses further to the real sleepers — the cars to be drooled over in 2010. There the Citroënist's dreams come true. Listed are the



🚗 Visa GTi ['good ones are very, very rare now...friendlier on the limit handling than (Peugeot) 205, too'],

🚗 BX GTi ['incredibly cheap at the moment, but often horribly abused by previous keepers...'] and the

🚗 CX GTi Turbo ['Ultimate version of the last per-PSA Group Citroën, delivered a pace not normally associated with the double chevron. CXs have teetered on the edge of classicdom for

some time but this is the one whose time will come soonest.']

The CCOCA members who own these models from the marque now have even more reason to hold on to them for at least another 15 years.

The June edition of 'Practical Classics' has a two-page article on keeping a DS on the road. The non-DS owners in the Club might wonder at the ability of any magazine to believe that in the space of two pages it is possible to generate a survival guide to the DS.

Compiled by Leigh Miles

pressured Xantia CT it replaces. Of course with passenger air bag, sun roof, leather trim and the like, the price can easily rise above \$50,000.

Internationally, in the July edition of 'Thoroughbred and Classic Cars' three Citroën models rate mentions as future classics. They tell us that 'lurking in car lots around the UK are motors that we'll drool over in 2008.' The top ten lists such unavailable in Australia vehicles as the Renault [Alpine] GTA, with prices starting at £1,750, the Renault 5 GT Turbo [from £550] and Espace [£1,500]. For the non-Renault lovers you should be seeking the Lancia Delta HF Turbo 4WD [from £2,000] or Volkswagen



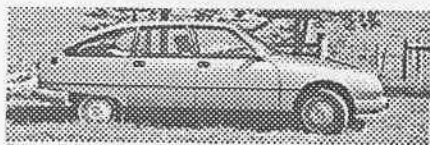
CCOCA Classifieds

CARS FOR SALE IN AUSTRALIA

5CV — 1922

Polished aluminium boat-tailed roadster. Well known VSCC car. Full ground-up restoration. Engine and gearbox professionally rebuilt. Wire wheels rebuilt, inc new rims and spokes. New 2.75 x 21 tyres and tubes. Dk green upholstery with matching carpet and trim. Handbook, road tests, parts book [en Français]. No expense spared. All receipts etc. Car starts, stops, steers as you would expect. Club registered. \$15,000
Contact Bernie Jacobson
Tel [03] 9842 5808 [S/O]

GSA Club Mk1 — 1980



Only known Mark 1 in Australia. Excellent condition, previous Concours Class winner. Low kms. RWC. Pale metallic blue, dk blue interior. 5-speed manual, 1300cc. A very rare car, worldwide, making this a potential collectors item. Reluctant sale to fund Big 6 restoration. All reasonable offers considered.
Contact: Peter Fitzgerald.
Tel [03] 9696 0715

2CV 'SAHARA'.

2 x 652cc Visa engines. Front wheel drive or 4 x 4. Jade green with mushroom trim. Ripple bonnet with spare wheel insert. Full registration in Qld as 2 seater but has a back seat [no rear belts]. Recent major rebuild. Very good condition all round. \$21,000.

Contact: Annie, Ph 07 3369 8841. [J/A]

2CV6 Club — 1980

[See page 19 of Jan/Feb issue of 'Front Drive']. Yellow and black, VGC, very reliable and economical, 104,000 miles, heaps of spare parts and service parts, well maintained and serviced. Study reasons [PhD project] necessitate frequent, long distance travel and a modest lifestyle. Trade in of a new and small [Asian] car will therefore be considered. Car is \$10,500 and parts [new tyres, oil filters, points, belts, etc.] and books \$800. \$11,000 the lot.
Contact Adrian Schoo, 29 Haverling Lane, Strathfieldsaye, 3550 Vic. Tel: [03] 5439 3261 [A/h], [03] 5442 4044.
Email: proact@netcon.net.au [M/J]

2CV6 Club 1986

White, excellent condition with just 30,000 miles. \$13,500. Also pair of standard accessory front and rear bull bars, ideal for Raid. Will sell separately. \$300.

Contact: Tom Campbell [02] 9692 9975 [A/h]. [M/J]

Light 15 — 1950

On Club Plates, past COCA Concours Winner, Dark Green with Brown Vinyl trim, all in very good condition. Would pass RWC check and go straight onto full registration.

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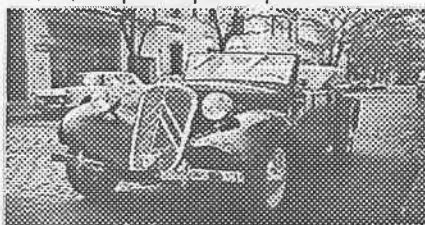
CX Pallas — 1981

For full details call Howard Burrage, [03] 5495 2094 [S/O]

CARS FOR SALE INTERNATIONALLY

11L Cabriolet — 1939

This rare [one of 4,300] LHD, fully restored vehicle is offered from Argentina. Black with yellow Pilote wheels, tan top with brown leather upholstery, new chrome and excellent original mechanics. Asking US\$35,000 plus export expenses and



Please Note:
By law all advertisements for second hand motor cars must list the registration number. From the next edition of 'Front Drive' this will be rigorously adhered to. All non-compliant ads will be removed. Ed

freight [~US\$3,000 to Australia]
Contact Mario and Marcelo Kaplan
Email: mkaplan@impsat1.com.ar
[Or I can email you other pictures in the first instance. Leigh Miles.] [S/O]

2CV — A reg

89000 miles, good engine, 2 months body needs work. Parts or renovation. £300 ono.

Contact: P.Thurlow, Tel: 001144 113 278 8791
Email: sixstring@argonet.co.uk [S/O]

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LATE D-SERIES PARTS

2 x DS23 injection heads,
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2 x front guards,
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2 x wheels, sandblasted and primed
2 x complete front suspension assemblies
2 x rear suspension arms
1 x dashboard and instrument panel
2 x front suspension ball joints [1 new],
3 x large [non-Pallas] hub caps,
1 x rear number plate panel,
1 x tail light [Pallas],
2 x air cleaners,
1 x set Pallas stainless chassis trims,
1 x set rear exhaust pipes,
1 x jacking stand,
1 x alternator.

Please enquire about condition, etc. Any reasonable offers will be accepted.
Contact: Chris Bennet [08] 8293 2619. [M/J]

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Original Light 15 engine and gearbox
Light 15 complete grille, newly chromed
Light 15 bumper bar [narrow] and strand also water pumps, generator and starters.
For full details call Howard Burrage, [03] 5495 2094 [S/O]

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Pair of enamelled Citroën Chevron [white and yellow] and marque name [blue on white] Garage signs [c1960's?] \$500, or best close offer. Will separate.
Ball joint puller, nearly new and front bearing/hub puller and various bumper bars — flat strap and English pressed style. \$150 the lot.
Contact: Max Graham [03] 5367 4116. [S/O]



talkingtechnical

SPARE PARTS OFFICER — MEL CAREY

TRACTION 4-CYLINDER ENGINE MOUNTING

The notes on engine mount adjustment have been prepared to assist the technically minded members and to draw attention to this important area in relation to reducing vibration throughout the vehicle.

The 4cyl. traction has a two point engine mounting system. A rear rubber cushion bolted to the timing case which sits in a removable steel box in the firewall and a conical silentbloc mounted on the top of the gearbox. There is no adjustment on either the rear rubber cushion itself or the front conical mount, however, there is adjustment on the removable steel box which bolts into the firewall, and the side volute springs which act as steadies to take torque reaction.

Quote from workshop manual:
'Adjust engine suspension.
Rear rubber cushion must be well centred in its housing as well as fitting into it at the correct depth.

[a] Centre rubber cushion;
From inside the vehicle remove four bolts holding housing and take out same. Front end of unit is held in correct position by method of mounting, ie biconical rubber bush in pin. Engine can therefore move up and down slightly around the axis of this pin. This permits correct adjustment of rear rubber cushion in its housing. To centre rubber cushion, loosen lock nuts of volute springs adjusting screws and turn the latter clockwise or anti clockwise. A tolerance of 2 to 3 mm. above horizontal centre line of opening in coque is permitted.

[b] Adjust longitudinally;
The positioning of the rear cushion in its housing is carried out by using existing hole in housing. After fitting into place, measure the distance between the back of the housing and face of cushion. The distance must be 10mm within 2mm, If existing housing does not permit this, another one must be fitted.'

[In our case a modification to the housing or the addition of washers as shims would be our answer to "another one must be fitted". The point is that these housings were originally hand fitted to take into account variations in engine bay dimensions and it is an area that is often overlooked when setting up a "new" installation].

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The Spare Parts Fund members receive a 10% discount on parts purchased through CCOCA Spare Parts, with a new member fee of \$100.

This has been established to provide a short term cash injection that will give this Club the ability to purchase larger quantities of parts and therefore reduce the overall cost. This benefits all members plus is an additional bonus for Parts Fund members.

Calculate how much you spend on parts for your Citroën per year, subtract 10% and see the savings. Remember, this membership is a one off fee...you are a member for the life of your membership of CCOCA.

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