

Freewheeling

Issue 50 July/August 1988 \$3.00

FREE BIKE CATALOGUE

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survey

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Seoul

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Freewheeling

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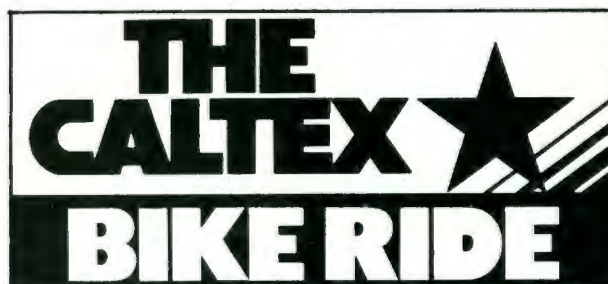
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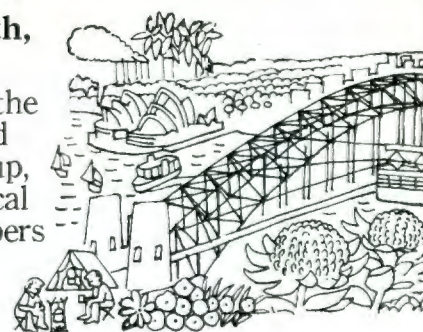
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A way to end the tyranny of the car

Increased car traffic is killing off our cities. Can the humble bicycle come to the rescue?

I never would have believed it if I hadn't seen it with my own eyes. A motoring columnist for a major daily newspaper condemning the takeover of our cities by (gasp!) the automobile.

A few weeks before that, a story appeared on the front page of the Saturday features section of the same newspaper documenting how General Motors and a group of US rubber and oil companies banded together in the fifties to buy up a number of US tramway companies to convert them to busses. GM was caught in the act by the US Federal government, taken to court and made to pay the maximum penalty - \$US5,000.

Now they are talking about bringing the trams back to Los Angeles. That's right, the car capital of the world has finally had enough. Its freeways are clogged up, air polluted, quality of life shattered and finally the decision makers are turning back to public transport systems as the only possible solution to the nightmare problems caused by the unrestrained use of the private automobile.

Any wonder that Alan Kennedy, the *Sydney Morning Herald's* motoring writer has reached the conclusion that unless we want the heart of our cities ripped out then the car has to be repelled at all costs.

A quick look around the country gives little hope that this might easily happen at least in the short term. In Sydney the most expensive engineering project ever undertaken in the country is currently underway. It's the Sydney Harbour tunnel and when it's finished it will add a measly four lanes of capacity to the Bridge and encourage even more cars into the city centre.

The tunnel was commissioned by a state government convinced of the need to unquestioningly provide for a projected increase of cross harbour traffic. The thought that it might not be good for the city to allow even more cars in never even crossed their minds.

The saddest thing about the whole harbour crossing fiasco is that once again public transport doesn't even get a look in. Alan Kennedy says that transport planners should be saying: "To hell with the traffic jams; if people want to sit in them, so be it". At the same time money should be spent on improving rail and bus services. Indeed, a bus lane should be established on the bridge so drivers can watch them rocketing past

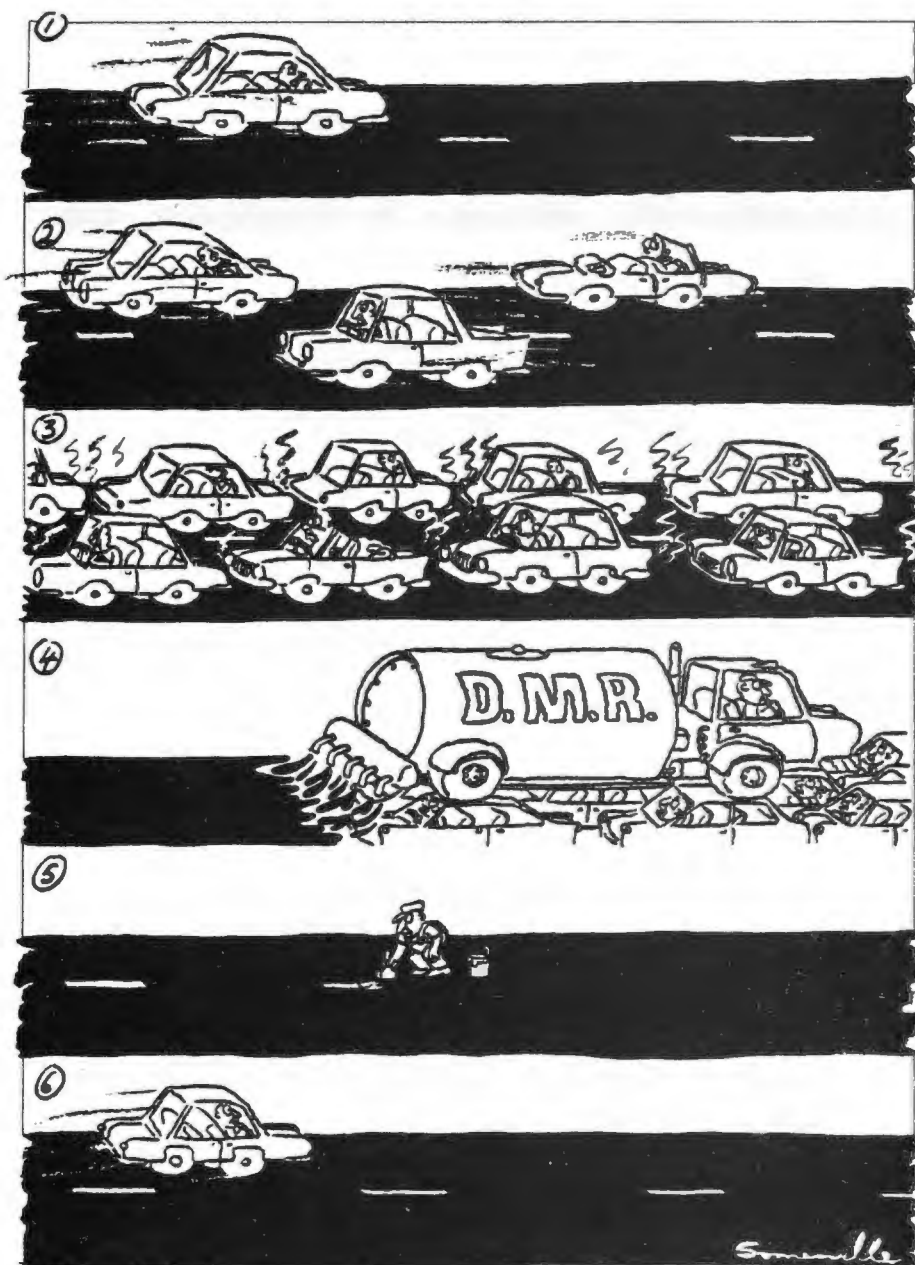
and maybe get the hint. If only it were possible in this day and age.

Unfortunately public transport has deteriorated greatly since the tram tracks were removed from the Harbour Bridge and the space given over to the cars. Transport ministers everywhere are considered more as deficit managers

One of my favourite Phil Somerville cartoons and one of his earliest. The 'DMR' stands for Department of Main Roads - every state has one and they all think alike.

these days. Public transport is a management 'problem' and the massive public transport departments have become little more than holding operations; prisoners of their own bureaucratic inertia.

I shouldn't be too tough on the NSW Government. Admittedly they have tried (sort of) in the past to encourage North Shore commuters to abandon their cars and use the trains. Consequently they have tied up millions of dollars in car parking space to benefit a relatively small number of rail users.



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6 Freewheeling

If twelve bikes can be parked in the space allotted for a car (even more can be fitted in if driveways and access roads are utilised) wouldn't it be a better use of resources if commuters were encouraged to ride bikes to the station instead of driving.

This is the most significant contribution the bicycle can make to quality of life in our cities. The bicycle is essentially a short haul vehicle. Only a few people live within cycling distance of their workplace but a huge number lives within cycling distance of a railway station.

In Japan bicycle/rail transport is the only way millions of commuters daily can make their journeys to work. If every Japanese drove a car to work the country would grind to a halt. There is simply not enough room to move.

A better scheme than a harbour tunnel (and a much less costly one for the NSW taxpayers) would be a program that would study the needs of North Shore and Northern Beaches commuters and instigate a scheme whereby the State Rail Authority and UTA would be able to match or even better the projected additional capacity claimed by the Tunnel advocates.

A North Shore Transport Scheme would comprise two groups: one concentrating on increasing the carrying capacity of the rail line from Hornsby

and north and the other to increase the bus carrying capacity of the UTA through to the Northern Beaches. The Scheme would have set goals and targets and could begin to improve the capacity of the Bridge almost immediately instead of next decade when the Tunnel would finally be completed.

The rail group could begin at North Sydney and work its way up the line. At each station it would need to study and meet the rail transport needs of commuters as well as encourage them to use bicycles and pooled cars to get to the station.

Very few people live within walking distance of rail stations but the bicycle increases the catchment area considerably. The concept would have to be properly marketed and undertaken with the full involvement of State Rail who would need to increase their timetable accordingly and upgrade station facilities in each location as the group progresses up the line.

Free travel vouchers and other incentives could be used to attract people to the idea. Well designed facilities including security bicycle parking and a more convenient and improved transportation service should then maintain their patronage.

The bus group would work much the same way but would fan out from the bridge along existing routes evaluating

them as they went and initiating new ones if the need is evident.

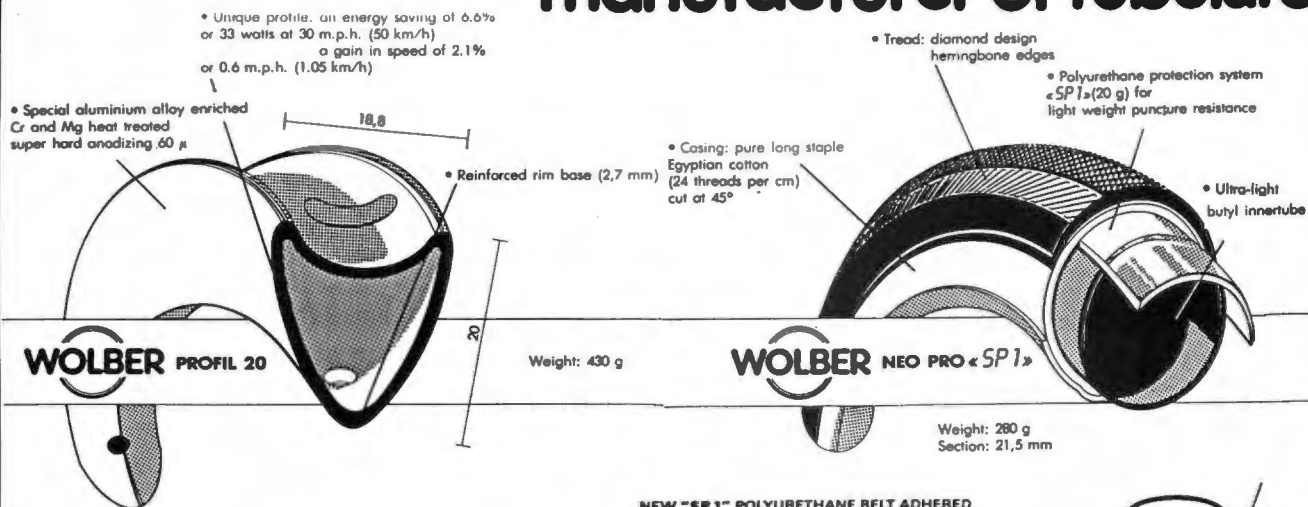
The legacy of such a scheme would be an improved transportation system for everybody. The North Shore would get a vastly improved public transport system that could be taken as a model and implemented in other parts of Sydney. The remaining motorists not adequately served by either trains or busses would experience less delays though, given the nature of the road networks which converge on it, the bridge would always have its moments of frustration.

The Griener Liberal government came to power promising to conduct a review and if possible stop the Tunnel project. As the Government they quickly found out that the Tunnel builders had a watertight contract and the project had to continue. So now the citizens of Sydney are stuck with it and the increased traffic it will bring.

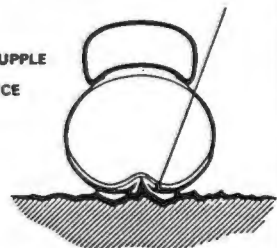
In the meantime thousands of commuters passively sit and wait and queue in their vehicles daily to pay a \$1.00* toll fee as the electric trains speed past them. Some people just never learn – and governments waste their money thinking that they can relieve their frustrations.

* The current \$1.00 Harbour Bridge toll will be increased to \$2.00 in 1989 ostensibly to pay for the tunnel construction.

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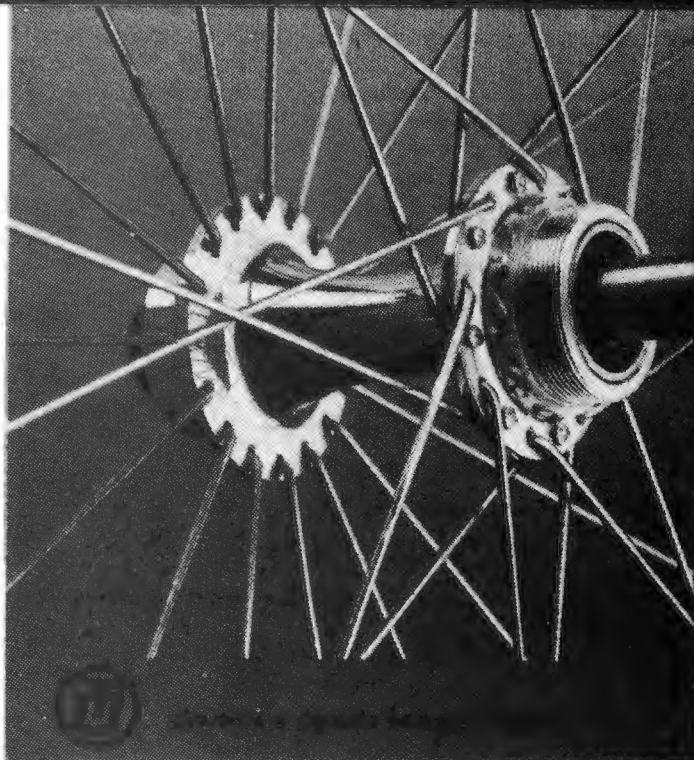
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The bicycle that flew

Hi tech recreation of a mythological flight

REMEMBER MY very first column March/April issue number 41, in which I announced the details of a search for the perfect Greek athlete to recreate the legendary flight of Daedalus from Crete about 3500 years ago.

For those not familiar with Greek Mythology Daedalus, one of the world's first scientists, escaped from the wrath of King Minos by fashioning feather and wax wings for himself and his son Icarus. The son fell into the sea and drowned, the legend goes, but Daedalus made it to Sicily via the Greek mainland.

Well, high technology brought the old legend of Daedalus to life in late April of this year when a Greek cycling champion set a record for man-powered flight.

Kanellos Kanellopoulos pedalled his 31.75 kg (70 lb) flying machine, named Daedalus after the mythical Greek, for 119 km (74 miles) non-stop from Crete to the island of Santorini in a time of 3 hours 55 minutes, at an average speed of 29.7 km/h.

But he was denied a soft landing when strong winds wrecked his craft as Kanellopoulos prepared to land.

The 34 metre wings and the tail broke up and the craft crashed into the sea only metres from the shore. Fortunately, Kanellopoulos was flying only a few metres above the water and was able to break out of the cockpit and swim to safety.

Interest first gathered in human powered flight when Henry Kremer, an English industrialist and physical fitness devotee, decided in 1959 that someone should be encouraged to revenge Icarus and offered 5000 English Pounds to the first British citizen who could fly a human powered aircraft over a figure eight, one mile (1.6 km) course with a ten-foot (3.04 m) minimum altitude at the beginning and end. The plane had to take off unassisted and carry everything used for the take off with it... No stored energy or lighter-than-air gases were permitted.

Since two 180-degree turns were required, and the flight was to be in both directions to cancel effects of the wind, and an altitude of at least ten feet had to be achieved, there was a need for a true aircraft, no glider arrangement would suffice.



In the eight years following the prize announcement, several British planes actually flew, but none came close to making turns or complying with the rules, or completing the required distance even in a straight line.

In 1967 the prize was increased to £10,000 and opened up to the world. There followed attempts at building a winning aircraft by the Japanese, Australians, Canadians, French and Americans.

The prize was increased to £50,000 cash and in 1976 the most successful human powered aircraft flew over the mile in a straight line in Japan. Named the "Stork" it was built of balsa wood and rice paper by a group of students at Nihon University.

In a low altitude flight of about four minutes the aircraft travelled 2080 metres. Still, the Stork just couldn't make turns and stay in the air. But it was rumoured that the Japanese were working on the problem and for the very first time there was an optimism that the Kremer prize might be won.

In the space of slightly under 12 months Dr Paul MacCready an American academic headed a small team that won the prize in 1977. His craft, the Gossamer Condor, completed the figure eight course in 7 minutes and 28 secs. Gossamer Condor was not a glider but a true powered aircraft with man as the power plant.

Elated – the Royal Aeronautical Society and Henry Kremer joined forces to promote a competition with \$200,000 as a prize to encourage a flight across the English Channel.

The Gossamer Condor was the brain-child of 53 year old MacCready and was influenced by many sports including bicycle racing. Dr MacCready is a lifelong glider pilot who conceived the Gossamer Condor upon noticing that a high-performance hang glider took only one horsepower to remain aloft, he realized if size were increased by three times while maintaining the weight constant, it would only take one-third horsepower for level flight. This was well within the range of a racing cyclist.

A flight speed of under 16 km/h was indicated, meaning that much simpler aero-dynamic forms could be used without sacrificing too much in added wind drag. Thus, MacCready developed a trial and error concept making it possible to test fly the Gossamer Condor hundreds of times until success was achieved when at 7.35 am August 23, 1977, at the Shafter Airport, California, one of history's oldest dreams was realized: a man had risen into the air under his own power and had flown for over seven minutes.

Thus there were grounds for confidence when Dr MacCready and Condor pilot, Bryan Allen, decided to develop Gossamer Albatross for a channel crossing.

But there is a vast difference between skimming above a field for seven minutes in California and flying across the English Channel (where conditions are unpredictable) for a sustained flight of any duration. Allen had to provide a quarter of one horsepower of energy to make Albatross airborne with a pedal driven propeller and 22 horsepower to keep it flying.

Following on a period of training tests prior to the original successful figure eight flight Allen, seated in the actual recumbent supine position used for the flight, could put out 0.48 horsepower for seven minutes and 0.

38 horsepower for over 30 minutes, however, only a slight head wind on the

chosen day of the Channel flight would make it necessary for the pilot to put out greater horsepower to maintain elevation during the take off period.

The Channel seldom shows a benign face to those who challenge it (whether they try to swim or sail) and there was no reason to expect any special treatment for a man who tried to fly across using his own muscle as power.

For one thing the Channel is the busiest shipping lane in the world. Super tankers move up and down the narrow stretch of water almost the way that cars use a freeway. The turbulence these vessels create at an altitude of 50 metres – the maximum allowed for the flight – could disintegrate the Albatross.

After waiting near Dover for a month for the right weather, team leader Paul MacCready decided on making the attempt. But the pedal plane almost didn't get off the ground.

On the first take-off attempt the plane lurched off the runway and keeled over. The second time Allen, pedalling furiously inside his transparent cockpit, got into the air.

As anticipated Allen had to change course to avoid a super-tanker as it threatened to disintegrate Albatross. Several times the plane almost skimmed along the waves which threatened disaster, until the pilot raised the altitude by one foot, it was here that Albatross flew best and maintaining a steady 75 rpm he approached for a landing at Cap Griz Nez on the French coast.

Allan banked his flimsy craft over a pile of rocks and landed on the sand. It was the conclusion of a magnificent flight by a magnificent machine.

The 20th century reenactment of the Daedalus legend was not based on flights of fancy, for the one-million dollar project had substantial backing from the US National Aeronautics and Space Administration (NASA).

The carbon fibre plastic aircraft was designed by the Massachusetts Institute of Technology.

Pilot Kanellopoulos, 31, has been a Greek National Cycling Champion 14 times. His flight extended 26 year old bespectacled American biologist Allen's time of 2 hours 49 minutes of flying time (to cross the English Channel) to a new record for manpowered flight by one hour and six minutes.

Kanellopoulos's flight was followed on the water by navy back up vessels full of reporters and photographers, while above him in the air the crew of a Greek airforce helicopter kept a watchful eye.

Thus the bicycle became not only man's greatest discovery for transferring human energy into mobility on the ground, but also in the air.

The broken aircraft is now on display in Athens museum.

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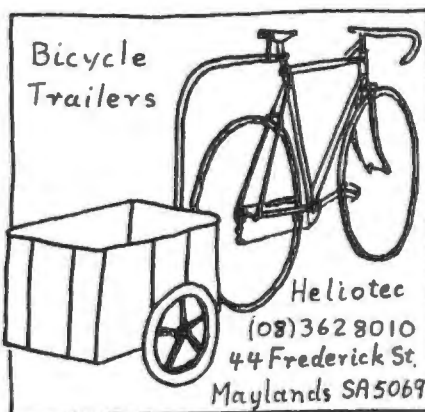
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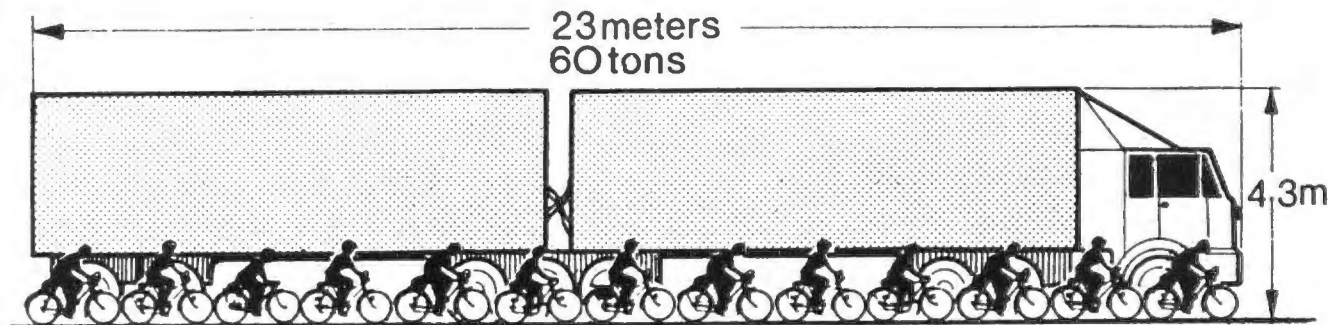
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The World Awheel



Here come the road monsters

Just when you thought it was safe to venture out onto the roads state transport ministers have approved the latest generation of super truck – ‘soon to a road near you’.

The monsters are known in the trucking trade as B-Doubles and make the northern Australian road trains look like an ordinary semi. The B-Doubles weigh 60 tonnes, carry almost twice as much as a normal semi trailer and are pulled along by a massive 400 horsepower prime mover.

The two trailer units are as long as 13 bicycles placed end to end and are even more dangerous to riders than the already massive trucks and trailers that regularly use our suburban and city streets. Motorists may have problems overtaking road trains but think what it would be like being overtaken by one of these speeding juggernauts.

As a general rule the larger the truck the more dangerous is its slipstream to cyclists. A big truck does not have to hit a rider; the wind gust is often powerful enough to send the rider careering out of control off the road or under its gigantic wheels.

No research has ever been done into the aerodynamic effects of such large vehicles on two wheelers. Both cyclists and motorcyclists have a legitimate complaint that their safety needs have been blatantly ignored. The so-called Expert Committee which conducted the review of road vehicle limits in 1985 failed to recommend the necessary research.

Unfortunately there are so few roads in Australian cities with adequate curbside width to allow the bigger trucks that a decision to approve them would be a blatant disregard of cyclists basic rights to use the road. At present the transport bureaucrats plan to restrict them to outer suburban roads and country areas allowing them into the suburban and inner city roads when public opinion has been softened up.

The hidden long term strategy behind the introduction of these monsters is an attack on the rail system's last bastion – bulk interstate freight. The truck indus-

try says that its new vehicles will be safer because there will be fewer needed to carry the existing load. However the economic rationalists supporting the move say that the most important thing in their favour is that they will improve productivity in the industry.

In other words it will enable the major freight companies to undercut the railways in their few remaining profitable areas and consequently we can expect more B-Doubles not less. Using the trucking industry's wonky logic that must make them less safe?

Perhaps the transport ministers should sell of the railways to TNT and Brambles as soon as possible. That way they can then drop this charade of greater productivity and let the private sector get into real operational efficiency with heavy rail. That way the taxpayer can be relieved of the burden of subsidising the damage caused to road system by bigger and bigger trucks.

There is an old saying that if the government can't control something then it will make money from it. Governments will benefit in the short term from increased road taxes on larger trucks so it's better for them to make a buck quickly that way because they can't make money the way they currently run their railways.

Alan Parker



Melbourne to Sydney Penny Farthing Ride

In November 1888 George Burston and H R Stokes set out from Melbourne on their penny farthing bicycles heading for Sydney on the first leg of what was to be one of the first world bike rides. On the way up through Albury, Cootamundra,

Cowra and Bathurst they encountered bush fires, drought and vast herds of cattle.

Now a century later a group of vintage cycle enthusiasts from Melbourne are planning a re-enactment ride along the route taken by the intrepid pair. The Burston and Stokes Centenary Ride is being organised by Bicycle Victoria in conjunction with the Vintage cycle Club of Victoria and will leave Melbourne on October 29 arriving in Sydney on November 12.

Several vintage cycle collectors are loaning a number of their precious machines to willing and experienced high wheel riders to ensure a large travelling group. Coles Catering will accompany the riders and supporters and provide meals along the way working out of a restored vintage truck.

Entries close on Monday September 19 so hurry; especially if you want to ride one of the vintage bikes on loan.

Contact the organiser Charlie Farren at Bicycle Victoria (03) 650 2550. Entry forms can be obtained from Bicycle Victoria PO Box 1961R Melbourne VIC 3001. If you live in Melbourne you can obtain entry forms from the Bicycle Victoria office, Shop 15 (behind the fountain wall), City Square.

Perth to Sydney record attempt

Graham Woodrup, well known Victorian marathon cyclist, will attempt the gruelling Perth to Sydney Intercapital record in August this year. 'Woody' hopes to break the present record of 11 days 29 minutes for the 4354 km journey. The present record holder is Kevin Hunt who set the record in 1974.

Woodrup will leave Perth on the 20th and hopes to average 450 km per day on the long haul across the Nullarbor. His attempt via Adelaide, Melbourne and Canberra will be supported by an enthusiastic team of 12 volunteers including bike mechanic, first aid officer, cooks, drivers and time keepers as well as two publicity people to deal with the media.

Capilano Honey is to be the major sponsor and local seafood exporter

Sou'west Seafoods are also assisting at a local level. There will of course be a short fall of funds which Graham will have to fund himself.

Woody is the present holder of the Australian 7-day record of 2780 km, the Melbourne-Adelaide-Melbourne record of 2 days 23 hours 23 minutes and the Australian 24 hour Tandem record with Ian Hay. At present he is covering 800 km per week in preparation for the record attempt.

Round Australia marathon underway

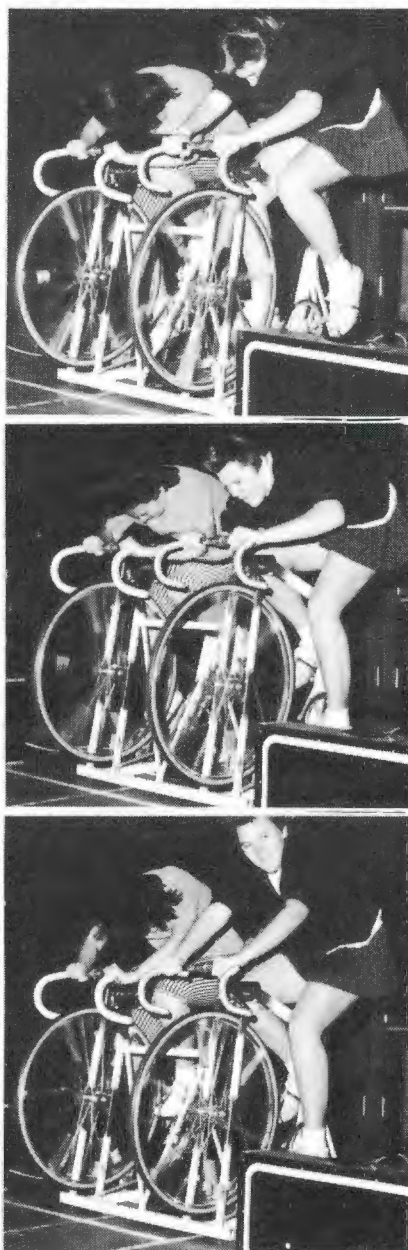
On Saturday, May 7, over 40,000 people in Canberra waved goodbye to a team of Australian and International cyclists as they left on a round Australia cycling marathon.

Europa Cycles, professionally fitted out 19 year old Australian cyclist, Georg Gerharter. Georg is the Australian representative in the Bible Society's round Australia cycling marathon called CYC-RAM '88.

This Bicentennial event has been organised by the Bible Society in Australia to raise money for literacy development projects in Australia, Papua New Guinea and The Pacific Islands. Now the Society's Bike For Bibles office is looking for 500 more cyclists to join the International team as they ride back into Canberra on October 8, 1988.

Marathon rides are being organised from various points around Australia including Perth, Cairns, Adelaide, Melbourne, Tassie and many towns along the way.

In 1987 almost 300 riders dressed in bright green and gold outfits made a spectacular sight as they rode into Canberra for a civic reception on the steps of Parliament House. This year the Bible Society predicts it will be even more spectacular as riders from all around Australia have expressed great enthusiasm to join the ride.



The rides will cater for experienced and less experienced riders. Short rides or long, challenging rides with distances varying between 80 km and 180 km per day are all being planned. For more information on Bike for Bibles '88 ring 02 267 6862 or toll free 008 25 1389.

Adele Anderson

Search for School Champs

The Safe-n-Sound National Schools Championships is well under way around the country as students try their skills on indoor turbo trainers for the right to enter the state finals and eventually become one of four National champions.

The championships are open to contestants aged 10-16 years and are being run by the Australian Cycling Federation through its state branches. The aim of the contest is to identify potential cycling champions as well as to teach some basic cycling safety rules.

Each participating state has a set of identical dual indoor trainers wired up to a purpose built electronic device that shows distance travelled, and at the flick of a switch, the riders times over a sprint distance of 400 metres.

Freewheeling caught up with Jim Haloran of the NSWACF when he visited Sydney Girls High in June. Our photo series shows the tremendous effort put in by the girls during the school heats. The electronic display, however, was moving too quickly through the numbers to register clearly in the pictures.

Heat winners receive a certificate and enter the zone finals. Zone winners then enter the state final and will win a Safe-n-Sound Sprinter helmet, Puma track suit a sash and a trip to the nationals if they are fast enough.

The national championships will be held in October and winners of the four categories (Under 14 and Under 16 for

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both boys and girls) will win a Malvern Star Bicycle, special medallion and a years membership of their local cycling club.

"Boat people" win Ridesafe 88 holiday to USA and Disney World

The culmination of the successful Ridesafe 88 campaign recently took place at the NSW Police pavilion at the Sydney Showgrounds. Star of the popular television program *Ridgely Didge* Jared Robinson drew the prize and announced the prize winner to hundreds of excited onlookers.

The six year old winner Rana Hooke lives on a boat at the Balmain Marina so he will enjoy the dry land during his 12-day visit to the USA which will include Los Angeles, New York, Washington, the Kennedy Space Centre and concluding at Disney World in Florida.

The prize, tickets worth \$12,000, was presented to Rana and her family by the sponsors Rosebank Plastics makers of the Stackhat helmet and the National Australia Bank later on in the bank's Sydney boardroom.

River to River Ride

Bicycle Victoria's Great Victorian Bike Ride for 1988 will kick off in the Murray River town of Swan Hill on December 3 and nine days later will arrive at the Yarra in Melbourne. The organisers are planning improved facilities for this year's big crowd including entertainment at each of the daily campsites.

Trains will carry all the participants and their bicycles from Melbourne to the start on the banks of the Murray. For the first four days cycling the ride will parallel the great river before heading south through the pretty Central Highlands towns of Castlemaine and Keynton.

The full fee of \$209 (adults) includes tee shirt, travel to Swan Hill, commemorative badge, all meals, camping fees, entertainment and much more. School groups are welcome and entries close Friday November 4. Forms can be obtained from Bicycle Victoria on (03) 650 2334 (don't leave your entry too late as last years ride turned away late riders once the full compliment for the event had been filled).

Bike Expo 1988

Bike Expo now in its sixth year moves back to Melbourne to a new venue at the Exhibition building. Expo will kick off with a special trade-only opening night on Thursday September 8 from 6 pm to 10 pm. The show will open to the public on Friday September 9 and will run each day 10 am to 5 pm until closing 5 pm Sunday September 11.

Club cycling in Sydney's north

The resurgence in Sydney's northern suburbs has been given a further boost



by sponsorship of the Northern Suburbs Club by Clancy's Supermarkets. The Northern Suburbs club is one of the more progressive of Sydney's amateur cycling clubs offering its members a complete weekly racing calendar.

This year Norths will promote a major 150 km road race based on the Peat's Ridge area. All of the country's top cyclists are expected to compete as preparation for the Grafton-Inverell Classic.

The club boasts a membership of 140 riders competing in all categories from

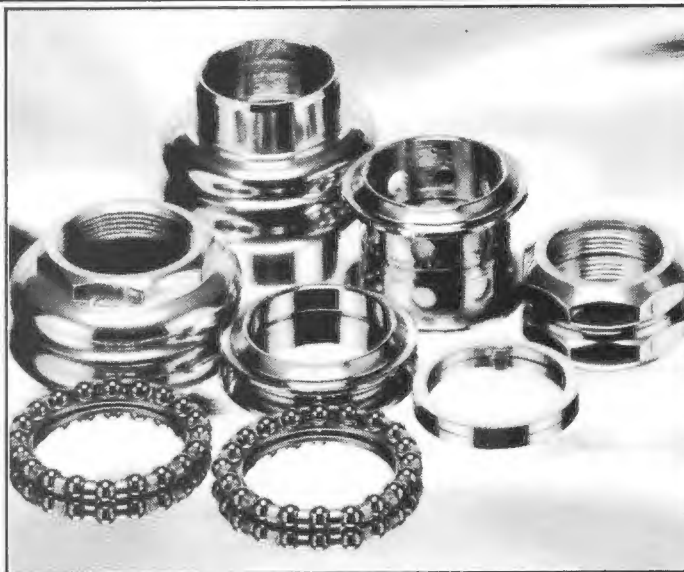
Under 16 to Veterans. Many school boys and girls also race weekends with the club. For more information on the club contact Max Rowling (02) 484 5331.

International Pedal Pen Friends

The National Bike Club of Britain is starting up a pen pal program to help put its young members in touch with under 16 year olds in Australia and the USA. The American magazine *Bicycle Forum* and *Freewheeling* are to participate. If you are interested in writing to

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an overseas pen pal please sent a sheet of paper with your name, address, date of birth, your interests, and whether you would like a male or female pal in either the UK or USA to Pedal Pen Friends, *Freewheeling*, PO Box K26, Haymarket NSW 2000. We will then pass your request to our contacts in your country of choice.

Biker stamps for 88?

Commercial artist and stamp designer, Graham Wade (also known for his illustrations in the Bicycle Institute of NSW's journal *Push On*) and some cycling friends, have begun a campaign to get Australia Post to commission a series of Australian bicycle stamps.

Many countries – Italy, East Germany, the USSR, China, Czechoslovakia have hundreds of bicycle stamps.

Even small African nations have more stamps of this kind than we do (three available and a couple of rare ones).

Former touring magazine editor, Peter Innocent, is coordinating the campaign to persuade Australia Post to commission a commemorative set this year – especially since 1988 happens to be the centenary of competitive cycling and the Burston and Stokes ride.

Peter wants individuals and clubs to write letters in support. Please contact him at Bicycle Victoria PO Box 1961R, Melbourne VIC 3001 for details.

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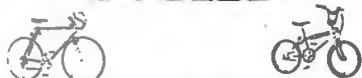
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WEIRD AND WONDERFUL

Your future bike is ready... Well, almost.

BY WARREN SALOMON

LET'S FACE IT the word 'plastic' has an image problem. And the thought of a plastic bike conjures up images of rumbly overblown kiddy toys with wheels that always fall off. Any wonder then that the Itera, that strange looking plastic machine from Scandinavia, (pictured on the cover of our fourteenth issue) never made it in the marketplace.

Ever since the days of the bamboo bicycle inventors and mechanical tinkers have been experimenting with materials other than the old favourite, steel. Over the years we have had the American fibreglass bike of the sixties, the British plastic bike, the Dutch plastic bike and most recently the Itera – the Swedish plastic bike. For one reason or another they have all disappeared from view – seen only in the history books.

Nowadays, we live in the space age – or so we are told. Mere plastic (as improved as it might be) is not enough. Today's wonder materials have names like Kevlar, carbon fibre, technopolymers and boron. Even aluminium is passe.

At the major European trade shows bicycle companies have been demonstrating for some years that bicycles too can go hi-tech for the sake of speed and efficiency. However, the hi-tech push received its biggest boost late last year when the Ferrari/Colnago Concept bike was exhibited at the prestigious Milan show.

The Colnago Ferrari is an amazing machine. Its frame is made from carbon fibre tubes fixed into lugs using advanced technopolymers (a kind of super duper glue) and strengthened by carbon fibre and fibre glass. The wheels are also

The amazing Colnago/Ferrari concept bike complete with automatic 8-speed gears and hydraulic brakes.

made of carbon fibre and have an unusual three-spoked arrangement in place of the now familiar solid disk wheels.

If the frame has the familiar shape and appearance of a high performance road bike then a closer look at the bike's mechanics will reveal the more unusual aspects of its design.

For a start the Ferrari/Colnago does away with conventional derailleur gears. In their place is an eight-speed gearbox designed by the Ferrari engineers. This gear box is built into a light alloy housing which fits inside the diameter of the chain sprocket. The chain sprocket does not turn at the same speed as the pedal crank but at a rate determined by the gearing device.

Inside the housing is a first central gear shell which moves with the pedal shaft. This is constantly engaged with a second gear and which in turn connects to a third gear wheel on the same shaft. This transmits the drive through a fourth wheel to the inner wheel which drives the chain.

The Ferrari/Colnago breaks new ground in other areas with its new hydraulic braking system. The front and rear brake units each have their own slave cylinders connected to the lever operated master cylinder by thin pressure pipes no bigger than conventional brake cables. The prototype, due for

production and public sale next year, weighs 8.48 kg (18.7 lbs).

Milan was also the showcase for a number of new machines all employing frames made from composite materials such as carbon fibre and Kevlar. Carbon fibre frame is the most popular of the so-called 'new' materials and was the choice of most of these 'new' bike builders.

Carbon fibre is a material with many similarities to fibre glass. Like glass fibre it becomes incredibly strong when moulded into an epoxy resin base. Because the carbon fibre material is strongest in only one direction layers of the material aligned in varying directions often with a layer of Kevlar in between to add further strength.

Because the carbon fibre/epoxy composite material can be easily moulded into any shape a number of the new machines have departed radically from the conventional tubed frame design in order to reduce the overall wind resistance of the bicycle.

One of the most impressive examples of aerodynamically influenced design is the Modolo Kronotech built by the Italian frame building company Bottecchia. This sleek black machine has been designed by Modolo better known for their brakesets.

The frame is made from honeycombed carbon fibre and uses titanium (an ultralight weight metal) componentry and technopolymers to bond the carbon fibre composite components. The back wheel can be removed while the freewheel and chain remain in position.

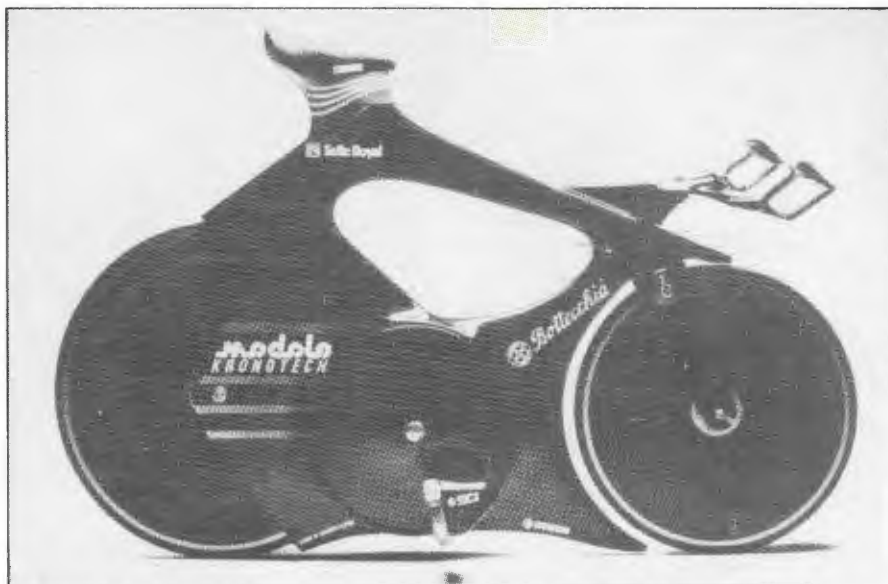
Bottecchia have also developed their own distinctive Crono Strada bicycle which uses part carbon fibre and part lightweight steel in the unusual frame design.

So far most of these machines are only in the prototype stage and are primarily designed to be used in specialist time trial events. As such many will never be raced against other bicycles only against the clock in the quest for all out speed.

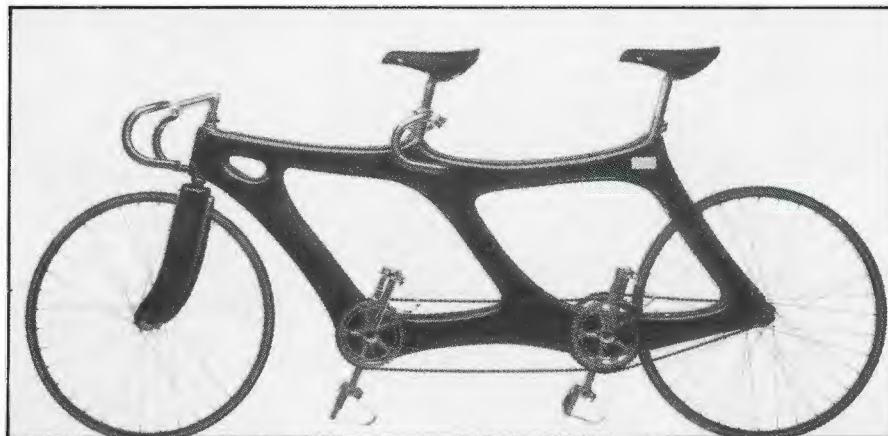
One carbon frame bicycle, out of the prototype stage and selling in the USA and Europe for mostly road racing use is the Kestrel 4000. Made by Brent Trimble founder of Cycle Composites Inc of the USA. Trimble's Kestrel frame is made from moulded honeycombed carbon/boron/kevlar fibre material. The frame is made as two mirror image halves which are then bonded together.

The frame is moulded into a sleek aerodynamic shape that gives the bike a split personality: from the side it looks fat and ungainly but head on it is slim and elegant.

The Kestrel 4000 fitted with Shimano Dura Ace componentry as available in the USA and Britain.

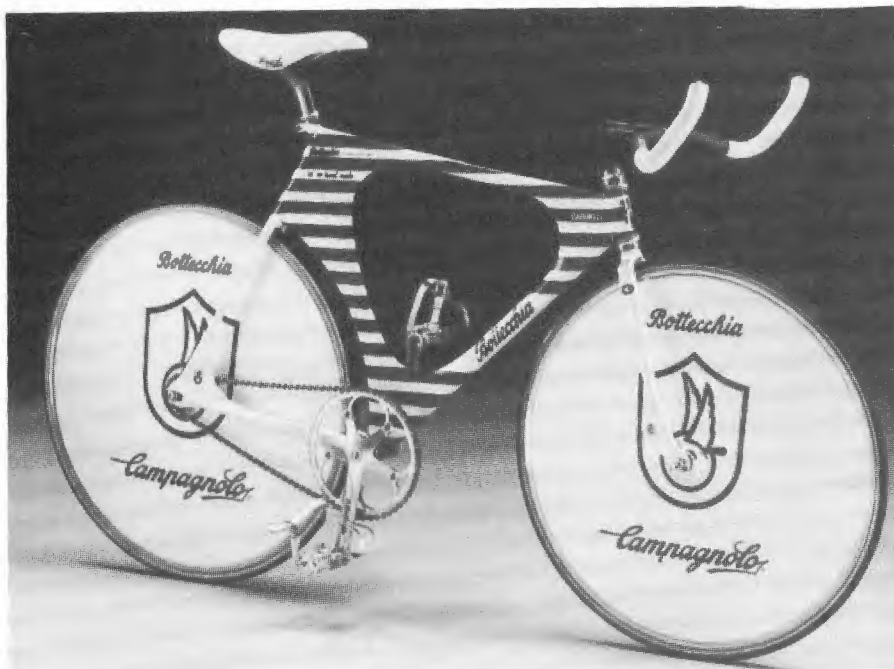


The sleek Modolo Kronotech.



The Cinetica Giotto track tandem.

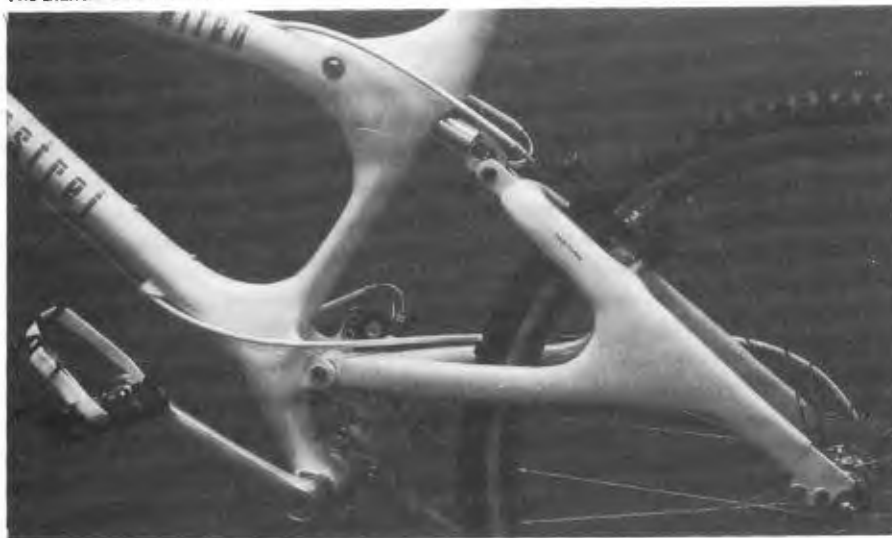




The Canielli (Bottecchia Crono Strada).



The Bianchi C4 cronos bike.



The main frame members have a tear-drop cross section and cables are routed inside the frame.

The Kestrel 4000 sells in the USA complete with Tange's new bonded aluminium forks for around \$US 1,200.

Carbon fibre's other major advantage apart from its lightness is its rigidity. A well built frame like the Kestrel is reported to have little if any lateral flex. This means when a rider stands in the pedals to apply maximum power all the force is transmitted to the wheels and is not lost in a flexible frame.

Though there has been considerable experimentation in frame shape design very little has been attempted in the way of new materials for front forks manufacture. Many of the latest prototypes still use either aluminium or lightweight steel alloy forks but the Presenti Carbon fibre time trial bike goes the whole way. It's designers and builders have sculptured out of carbon fibre composite material a beautiful set of reinforced forks finished in stunning gloss black duco to match the frame.

To date the majority of the carbon fibre time trial bikes have come out of Italy the home of good design. Just about every major manufacturer (Bat-taglin, Rossin, Bianchi and Colnago to name a few) has a sleek prototype of this type.

Tandems too!

Cinetica is a company started by Andrea Cinelli son of the famous Cino Cinelli. Cinelli's elegant Giotto tandem is a fast track machine with an aluminium honeycomb reinforced carbon fibre frame. The forks are also made from carbon fibre material. The complete bike weighs 26.4 lbs and was tested in the last World Championships.

The 3t Mach 0.05 tandem from the well known Italian component maker weighs only 13.5 kg. It uses composite material throughout even on the striking front fork/fairings.

A promise of things to come?

Brent Trimble, designer of the Kestrel frame, is deeply committed to the future of composite frames. To some extent one-piece composite frame construction is more suited to mass production techniques than the more conventional round section steel tubed frames. So perhaps Trimble and the current breed of Italian designers are actually designing tomorrow's bikes today.

Trimble's latest designs are even more striking than his Kestrel frame. His latest production bicycle called the Nitro is a mountain bike with suspension which weighs only 12.5 kg (that's 27½ lbs)!

The bike has two long travel telescopic shock absorbers on the front and

A close up view of the Kestrel Nitro's frame. Note the gas shock absorber on the rear fork assembly.

a single gas charged monoshock at the rear (the gas used is air – hence nitrogen = Nitro). The damping on the shock absorbers can be adjusted or locked solid.



Some early plastic bikes: Top, the American fibreglass framed bike (1963); centre, the British plastic framed bike; bottom, the Dutch plastic frame bicycle.

The frame and fork assembly should sell for around \$US 2,000 when the bike goes on sale in the US around August.

Even more interesting is Trimble's latest a cross frame mountain bike previewed recently in the US magazine *Bicycle Guide*. Its one piece moulded frame is constructed from 70% fibreglass and 30% carbon fibre. A 7.6 cm (3") diameter main tube gives rigidity (Trimble claims five times that of a conventional steel frame) and the lack of triangulation in the vertical plane makes frame better able to absorb road shock and helps the rear wheel maintain traction over uneven terrain.

Cables are concealed in the frame and the drive chain can be removed with out

the need to break it due to the lack of chain stays. The cross frame has been around for as long as the diamond type though the newer types of materials may give this design a new lease of life.

The Trimble mountain bike frame weighs 2.26 kg for a 56 cm (22") size.



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A BICYCLE IS ONLY AS GOOD AS IT IS ASSEMBLED

HOW TO KEEP AHEAD

A Freewheeling guide to head protection

COMPILED BY WARREN SALOMON

WEARING A bicycle helmet when you ride makes good sense. You may be a careful rider, in an accident it may not even be your fault, but if you fall you are more prone to serious head injury than if you were using any other means of transport. 80% of cyclists killed in crashes and 35% of those injured suffered serious head injury.

The results of a recent South Australian study (Dorsch 1987) show that above all **any** helmet is better than none at all. A good hard shell helmet could prevent up to 90% of all deaths due to head injury. The study even found that even a 'poor' had shell helmet could prevent 70% of deaths.

So what's a good helmet? To answer that question we first need to take a close look at bicycle helmets and how they work.

Most importantly the helmet has to absorb the impact your head encounters as it collides with a solid object or surface during a crash. It also has to protect your head from abrasions. To do this effectively most modern helmets use a moulded helmet liner made from expanded polystyrene protected by some form of outer shell.

The most important part of a helmet is the polystyrene liner. It's job is to absorb the energy from the impact of the fall. Expanded polystyrene (EPS) is the material most commonly used because it will crush on impact and cushion the blow. EPS is also used widely in industry and in the home as an insulation material. However, EPS can be made in varying grades of hardness so the type used in helmets must not be too soft (it will compress too easily) or too hard (otherwise it will damage the head).

As the EPS material absorbs energy by collapsing and compressing you must always replace your helmet once it has received a significant impact. Helmets only work once!

One further advantage of EPS over other materials is its extreme lightness an important factor in reducing wearer fatigue. Though other materials have been tried (such as closed cell

polyurethane) EPS continues to out perform all others.

Compared to motorcycle helmets the weight factor is more important to bicyclists. Consequently traditional helmet materials such as fibreglass (which is very strong but heavy) are not suitable for bicycling helmet shells. The current trend is towards special types of high-strength lightweight plastics such as Polycarbonate (Lexan is a trade name) or Acrylonitrile Butadiene Styrene (ABS) and other similar compounds.

Australia has one of the most advanced helmet markets in the world offering a complete range of helmets for all kinds of cycling activity. The helmet market in the late 1980's has matured and has entered into an improvement oriented secondary phase where the original designs are being phased out in favour of newer designs which are lighter, have better ventilation and strapping systems, look better and are more comfortable to wear.

The 1988 helmet market has reached a new level of sophistication. Different types of cycling activities now have their own specialised designs catering for the specialised needs of BMX, racing, touring and general recreation users.

The ultra lightweights

The demands of the competitor are now being met with the introduction of so-called 'shell-less' or ultra lightweight helmets. This type of headgear is usually about half the weight of the lightest hard shell helmets and are designed to be comfortable and cool in the tough competitive environment.

The ultra lightweight is usually made from a thicker than normal EPS base without the traditional hard shell plastic covering. In place of the hard shell is usually a lycra/nylon mesh cover. This slip over cover is not just a pretty face. Its job is to hold the helmet together in the event of an impact just as the plastic hard shell does.

Some of these helmets have passed the highest US performance Standards so they are not just a gimmicky design aimed at a transitory market sector. In

the USA they have rapidly become the choice of a majority of road race and mountain bike competitors.

Bell, the largest manufacturer has produced the Ovation model which offers the all the lightweight properties of the shell-less helmets with the addition of a thin 'micro shell' covering in place of the lycra. So as to hedge its bets Bell will also introduce its own version of the more common lycra covered design later in the year and will probably let the marketplace decide which is most popular.

The future of this type of helmet looks assured so long as questions relating to the EPS shell's ability to stay together and not split apart in crash conditions are adequately answered. The US distributor of the Giro lightweight helmet recently issued a warning to owners using its helmet without the integral lycra mesh cover. This cover is an essential part of the design and should not be removed while the helmet is in use.

The ultra lightweights feel good to wear even if they are not as cool as some of the large-vent hard shell types (Bell V1-Pro, Avinir, Vetta to name three).

Apart from the Ovation only one other helmet of this type dispenses with the protective lycra cover: the Rhode Gear Ultralight. It is not currently sold in this country but bears a special mention because its major design innovation points the way ahead for all future designs - *all helmet designs!*

To protect its outer surface from knocks, bruises and abrasion it is coated during manufacture with a thin film of Shellex plastic (a proprietary coating). This is also supposed to keep the shell from splitting in a crash. Whether it does or not depends on how thick and how strong its outer coating is.

The advantage of this type of helmet apart from its low weight is that it is much cooler to wear. One of the disadvantages of the lycra mesh cover is that it restricts flow through ventilation.

If the Rhode Gear Ultralight or its successors can pass the Australian Standard AS2063.1 we could see the helmet market world wide turned on its proverbial head as the lightweight design takes over.

A word of caution though; the ultra lightweight type helmet (lycra cover or not) can not be absent mindedly thrown into the boot of a vehicle at the start of a journey. Without the hard plastic shell the expanded polystyrene will break or crack if struck or squeezed from the sides.

Some, not all, of this year's batch of bicycle safety helmets. Top to bottom, left to right: Aus-Hat; Gemray Triat; Vetta Corsa R; Bell Ovation; LZ10; Avinir; Brancale XP 5; Giro Prolight; Stackhat; Bell V1-Pro; Atom; LT700; Hartop; Pro Sport; Bell Brava; Sorelli. The four helmets in the right hand vertical column are all ultra lightweights. The rest have hard outer shells.





Hot or cold?

A well-designed bicycle helmet should be comfortable to wear. To do this its padding/fitting and retention/strapping systems should correctly position and hold the helmet on your head at all times. The strapping should, if possible, allow adjustment for different head shapes.

Bicycle riding generates lots of body heat and the head is one part of the body which has to be kept cool. A helmet with poor ventilation can often make you uncomfortable and affect concentration. A motorcycle helmet does not need to be ventilated but the cyclist's does.

Most helmets have holes in their shells and liner to allow air in. For a helmet to offer effective ventilation it also must allow air out. In the marketing jargon of the manufacturers this is called flow-through ventilation.

For flow-through ventilation to work the helmet shell must have holes at the rear and some form of channelling in the EPS liner to encourage the air flow and generate the suction that will pull the hot air out.

Unfortunately all helmets are hot in summer. Some are hotter than others. In winter the cool helmets can also become uncomfortably cold but it is easier to keep air out of a helmet (with a cloth cap or lycra helmet cover) than it is to bring cooling air in.

Helmets that perform well in all climates and weather conditions are a rarity; what may be comfortable in the Queensland summer may not be as good in a Melbourne winter. If most of your cycling is done in the warmer months

There are two choices of helmet for infants: Left, the Kid Lid from Gemray (mum is wearing Gemray's Turbo MkV; Right, the L'il Bell Shell. Mother sports a Bell Tourlite.

you should always look for a helmet that's designed to cool your head.

Try it on first!

Never buy a helmet without properly fitting it first. It is important that the helmet fit you securely and comfortably. If it feels too tight then it will probably be irritating to wear for more than a few minutes. If it feels too loose then you run the risk of it falling off your head in a crash.

There are many different types of fitting systems. This is important as not all heads are the same shape. Sometimes one brand will fit better than another. Some models fit oval shaped heads better than round ones. If your head is an odd shape you may find that those helmets which have removable (velcro tabs) and replaceable sizing pads in varying thicknesses will give you the best fit.

Helmets that sit further down on the head require less strapping to hold them in place. Compare a full face motorcycle helmet which only has a chin strap. The design trend for bicycling helmets nowadays is towards a helmet that exposes the ears and the lower part of the neck. To keep this type of helmet securely on the wearers head extra strapping to the rear of the helmet is needed. These nape straps generally need to be adjusted to suit the wearer.

Non-adjustable nape straps often result in a helmet that will tip forward on the wearers head if the helmet sits up

high. The correct strap adjustment should be made when you buy your helmet so that you get a good fit right from the word go.

Performance standards

The Australian Standards Association's AS2063.1 is the only official test of a helmet's effectiveness in this country. The Standard consists of a list of design requirements and a series of tests laid down by the Association to evaluate the performance of helmets designed for outdoor and sporting use. Subsidiary Standards define the specific requirements for each activity ranging from horse riding to canoeing and cycling.

Sections of the standard (particularly the part relating to shell penetration testing and ventilation requirements) are still under review and when completed should offer one of the best sets of requirements for helmet design in the world.

The Standards Association only sets the standards for manufacture; it does not actually approve each helmet. Once the helmet maker's factory has been approved the manufacturer then has to submit batch samples of their helmets to an independent testing company which then performs the physical tests.

Critics of the Australian method of testing say that it is needlessly bureaucratic and adds to the cost of the helmets. In the USA employees of the testing organisations regularly purchase helmets from retailers and perform tests independently of the manufacturer issuing a product recall if faulty products are found. This has a profound effect on manufacturers as product recalls are

The 1988 helmet market

Brand	Model	Price	Weight (grams)	Type	Fitting	Tested	Retention	Ventilation	Coolness	Sizes	Colours	Accessories
Albion C&D	Aus-Hat	49.95	498	H	F/V	AS2063	A/Q	H/C	G	W(49-62)/V/C	Y/W	Visor Decals
Atom	Adult	49.90	488	H	T/V	AS2063	A/Q	H	G	W(54-62)/V	W/Y/R/P/BL/BK	Visor
Atom	Child	49.90	382	H	T/V	AS2063	S/Q	H	G	M(47-55)/V/C	W/Y/R/P/BL/BK	Visor
Avinir	Hard shell	75.00	462	H	F/V	ANSI	A/Q	H	E	S(56-59)/V	W/BK	
Bell	Brava	65.00	400	H	F/V	ANSI	A/Q	H	G	M(55-63)/V	W/R/BK	
Bell	L'il Bell Shell	55.00	251	U	F/V	Snell ANSI	A/P	H	F	M(44-52)/V/C	W	
Bell	Ovation	95.00	275	U	F/V	Snell ANSI	A/P	H/C	G	M(55-63)/V	W	Lycra bottoms
Bell	Pro Plus BMX	85.00	1083	H	F		S/D		P	M	W	Visor
Bell	Pro Plus BMX FF	112.00	1090	H	F		S/D		P	M	W	Visor
Bell	Stratos	140.00	465	H	F/P/V	ANSI	A/P	H/C	E	M(54-62)	W/GY/BK	Visor
Bell	Tourlite	95.00	494	H	F/V	Snell ANSI	A/P	H	G	M(54-62)/V	W	Visor
Bell	V1-Pro	79.00	401	H	F/V	Snell ANSI	A/P	H	E	W(52-63)/V	W/BK/BL/Y	
Bell	Windjammer	55.00	494	H	F/A	ANSI	A/Q	H/C	G	M(55-62)	W/BK	
Brancale	XP-5	75.00	398	H	T/P/V	ANSI	A/Q	H	E	M(54-62)	BK/R/W	
Brancale	XP-7	60.00	220	U	F/V	ANSI	A/Q	H	G	M(54-62)/V	W(RGR cover)	
Davies Craig	Hartop	49.00	524	H	F	AS2063	A/Q	H/C	G	M(50-60)	W	
Gemray	323	35.00	636	H	F	AS2063	S/D	H	G	W(48-60)	W/Y/P	
Gemray	Cobra BMX	45.00	772	H	F	AS2063	S/D	H	F	M(53-60)	BK/R/S	
Gemray	Kid Lid	37.00	208	U	F/V		A/D		P	S	W	
Gemray	Triat	40.00	442	H	F	AS2063	A/Q	H	G	W(52-64)	MBL/MBU	
Gemray	Turbo Mlx V	45.00	609	H	F	AS2063	A/D	H	F	W(52-62)	W	
Giro	Prolight	135.00	235	U	F/V	Snell ANSI	A/Q	H/C	G	W(52-62)/V	Y/BL/R/BK cover	
Guardian	Adult	54.00	540	H	F/V	AS2063	A/D	H	G	W(51-62)/V	Y	
Guardian	Sprinter	54.00	540	H	F/V	AS2063	A/D	H	G	M(51-58)/V	Y/W	Visor
Kiwi	K35	59.00	603	H	T/V	ANSI	A/Q	H	F	W(52-62)/V	Y/W	Visor
LT	700	79.00	211	U	F/V	ANSI	A/Q	H/C	G	M(56-60)/V	Covers multi	
Lazer	LZ1	49.95	560	H	F/A	ANSI	A/Q	H	F	W(52-62)	R/W/BK/Y/BL	
Lazer	LZ10	69.95	580	H	T/V	ANSI	A/Q	H	F	W(52/62)/V	M(R/GY/BL/S)	Visor
Pro Sport		35.00	543	H	F/A	AS2063	A/D	H	G	M(53-56)	W	
Rosebank	Stackhat	49.00	573	H	F	AS2063	S/D	H/C	F	M(50-59)/C	W/Y/P/BK	Visor
Safety Rider		32.00	515	H	F/A	AS2063	A/D	H	G	M(52-60)	Y/W	
Sorelli	Supremo	69.00	172	U	F/A	ANSI	A/Q	H/C	G	M(52-58)/V	5 (covers)	
Tracer		39.00	520	H	F	AS2063	A/Q	H	P	S	W	
Vetta	Corsa	99.00	435	H	P/A	ANSI	A/Q	H	E	M(54-61)	W/BK/R/Y/A	
Vetta	Corsa R	99.00	446	H	P/T/A	ANSI	A/Q	H	E	M(54-61)	W/BK/R/Y/A	

Abbreviations used in chart:

Fitting: F= Foam pads; T= Towelling faced pads; V= Velcro removable pads; A= Adhesive fixed pads; P= Polyurethane adhesive fixed pads.

Retention: A= Fully adjustable straps; S= Standard chin straps; D= D ring buckle; Q= Quick release buckle; P= Plain buckle.

Ventilation: H= Holes in shell and liner; C= Channelling for flow through effect.

Coolness: E= Excellent; G= Good; F= Fair; P= Poor. Sizes: W= Wide range; M= Moderate range; S= Small range; C= Childs size available; V= Variable adjustments with pads; (00-00)= sizes in centimetres.

Colours: R= Red; BL= Blue; BK= Black; GR= Green; GY= Grey; Y= Yellow; W= White; MBL= Metallic blue; MBU= Metallic burgundy; S= Silver; P= Pink; M()= Metallic colours.

extremely costly and always result in loss of market share long term.

Product testing is an ongoing process. Whatever methods are used it is a necessary part of maintaining high standards of manufacture for safety products.

Apart from the Australian AS2063.1 there are other performance standards in other parts of the world. In the USA there are two: the American National Standards Institute ANSI Z90.4 and the Snell Memorial Foundation Bicycle Helmet Safety Standard. The ANSI Z90.4 is regarded as a minimum standard. However the Snell Standard (the Snell Memorial Foundation primarily tests motorcycle helmets) is more demanding than Z90.4 and is highly regarded throughout the world.

All helmets must pass an EAT

A number of tests, such as the Energy Attenuation Test, are common to the

US and Aussie standards. This is the basic test of the helmet's ability to protect the wearer from a direct blow to the outer surface. It is now used by the Federal Trade Practices Act to restrict the sale of sub-standard helmets within Australia.

Helmets which can not pass the AS2063.1 EAT are not allowed to be imported into this country from June 30 this year. Any helmet which does not meet the AS2063.1 EAT already in the country will not be able to be sold in Australia after 1 July 1989.

What's the price on your head?

When considering the cost of a helmet it is important to realise that you are buying something to protect yourself from injury so you should consider its performance and fit before you put a price on your head.

The performance of a helmet should be your first consideration. SAA approval is a clear indication that the helmet will function effectively.

The helmet market in 1988

Ever since we started publishing we have attempted to present the cycling public and those new to the game with solid information and advice on the helmet scene. This year the market is bigger and better than ever. In fact there are so many that we have had to drop individual listings and pictures in favour of a chart so that we could fit the important information into the magazine.

We have divided the current batch into hard shell; and ultra lightweight.

Helmets for kids

The separate needs of children are now being recognised by helmet manufactu-

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The junior version of the Guardian (aimed at the teenage market) comes with a plain outer shell multiple sticker sets for dressing up and personalising the helmet.

riers and the Standards Association. A new subsidiary standard called 2063.4 is currently being finalised by the SAA.

Recent research has shown that adult helmets are usually too bulky and too heavy for small children and infants. Furthermore the temple area of a small child's skull is much more vulnerable than an adult.

At present a number of helmet makers manufacture small size versions of the standard adult helmets. While offering good protection this type of helmet is not recommended on under 6's and especially babies 1 and upwards.

Only two helmets for infants are worth considering: the L'il Bell Shell and the Gemray/Shelcore KidLid. Both of these helmets dispense with the tradi-



The Atom children's helmet offers extra protection for younger riders.

tional hard outer shell. It is important that infants' head protection be as light as possible because high-mass helmets can do more damage to the neck and spine as a result of the whiplash effect experienced during a fall.

For older kids the Atom offers good protection for the delicate temple area and back of the neck. Stackhat also



The full face Bell BMX helmet offers good protection for track use. Because of its weight it is not recommended for very small children.

makes a kid's size helmet which protects the back and side of the head.

Infants helmets are designed for passive use - the child is usually carried in a child carrier behind the adult. The small child's helmets can be worn by young beginner riders 5-6 and upwards. Because of their weight hard shell helmets are not recommended for infants.

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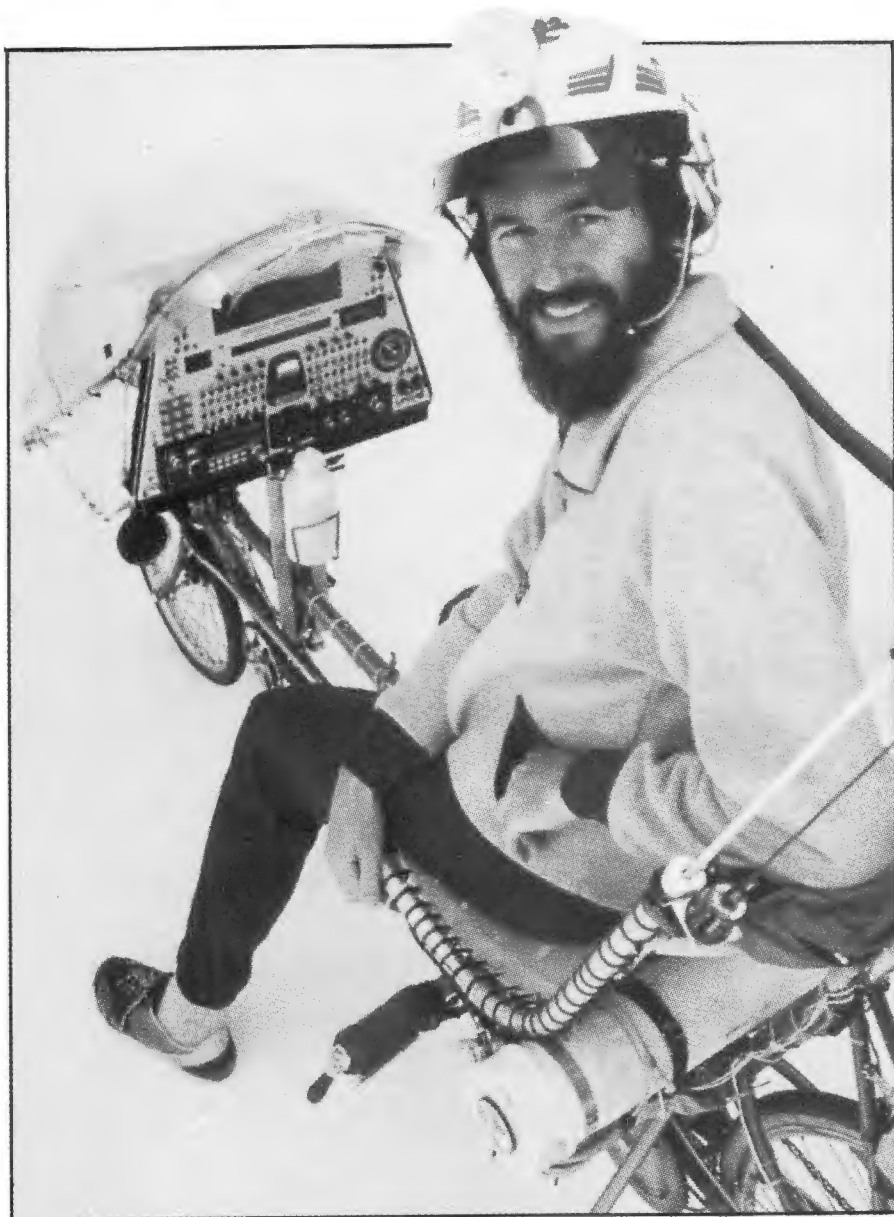


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COMPUTING ACROSS AMERICA

When Steven Roberts set out to explore America he took his office with him.

BOOK REVIEW BY WARREN SALOMON

Anyone who has ever pedaled the open road on two wheels will identify with Steven Roberts' book *Computing Across America*. The fundamentals of bicycle travel are all the same: how far can I travel today? when is this headwind going to swing around? I can't wait until I reach tonight's campsite – I'm so tired...

Steve Roberts, however, tours with a difference. His bicycle, a purpose built recumbent, is fitted out with no less than **five** computers and a variety of other technological gadgets including CB radio, mobile ham radio, electronic security system, FM radio, tape deck and, oh yes a small television set!

Somewhere in between the solar powered electronics and the 36-speed gear system that powers his 2.4 metre long bike he manages to store his personal equipment, tent, cook stove and clothing for all kinds of weather conditions.

Roberts is a freelance writer who has taken to life on the road with the determination and enthusiasm we often associate with Americans. His story begins with the selling up of his suburban house and possessions as he prepares for a nomadic lifestyle.

On the road Roberts is never alone – except perhaps when he is pedalling his electronic baggage up a mountain pass. He communicates with his editor back in Iowa (and other computer nerds) via an electronic post office called CompuServe. With such an amazing home on wheels he is constantly the centre of attention when ever he arrives in a town or village.

One of his favourite stories happened early in the journey. Roberts, sitting on the kerb with his computer on his lap, is hooked by the long umbilical cord of his modem cable to the nearby public phone when he is chanced on by an old farmer.

Staring quizzically at the phone booth, the cable and the smiling Roberts the old timer asks: "You with NASA?"

Roberts' own story, the thread that strings together the many anecdotal incidents that make up the book, is also the story of his own quest for meaning and maturity amongst the madness and magnificence that is the United States of America in the nineteen eighties. On this level the book is also an intensely personal account of life and love (some might say lust) on the move and the inevitable string of broken off and failed romances he leaves behind in his wake.

On other levels it is a remarkable view of a country and its people from the non threatening position that only a bicycle seat can provide. Except that Roberts, unlike the thousands of bike riders who have already made similar

trans continental journeys, isn't a background character. His lean and lanky frame (he is over six feet tall) and his high tech machinery are decidedly larger than life and it doesn't take long for the media vultures to track him down.

He certainly provides enough bait. Initially he goes looking for publicity to satisfy the needs of an initial corporate sponsor but once he becomes known he is tracked down by camera crews and reporters in even the most out of the way places. Through the South he becomes a kind of celebrity on two wheels leaving a trail of newspaper, radio and television stories as he heads across Texas bound for the Pacific.

Computing Across America as the title suggests is also about the 'new era of electronic communications'. It is definitely not for the Luddites among us who won't associate with anything more high-tech than an electric stove. The book gives a wondrous insight into the world of electronic communications like the amazing on-line special interest groups where two or more people 'talk' to each other by computer and phone line no doubt adding to the vast profits of the American phone companies in the process.

It is this aspect of the book that Roberts embraces with almost zealous fervour. He sets out to prove to himself that it is possible through the use of computers and high-tech communications to maintain the semblance of an 'ordinary' working lifestyle while at the same time living the life of a traveller.

He may be regarded by the disbelievers as a modern day eccentric but he provides above all another living example of what can be done when the human probable is transformed into the human possible.

The only doubts planted in my mind by this witty and highly enjoyable book concern the technology its self. Having the ability to do something thanks to computers doesn't necessarily mean that it will be done well or to the benefit of humanity. "We have the technology" is often the catchcry of those who want to unleash even more frightening and destructive power upon the world. And having a computer to write a book doesn't mean a better book if the author can't communicate with the readers.

Travel writers in the past wrote their journals in the field; the final manuscripts were always written at home later on a typewriter or lately on a word processor.

Roberts takes his electronic office everywhere he goes but that doesn't necessarily make him a better writer. Though you have to admire him for it especially if you are, like me, a sucker for the silicon chip.

THE ANATOMY OF A HIGH-TECH TOUR

The author reveals the secrets of his electronic cottage on wheels

BY STEVEN K ROBERTS

HIGH-TECH TOURING... That phrase, if you're a regular reader of glossy bicycle magazines, probably evokes colourful images of ultralight carbon fibre frames and aerodynamic derailleurs. High tech means light and sleek, right?

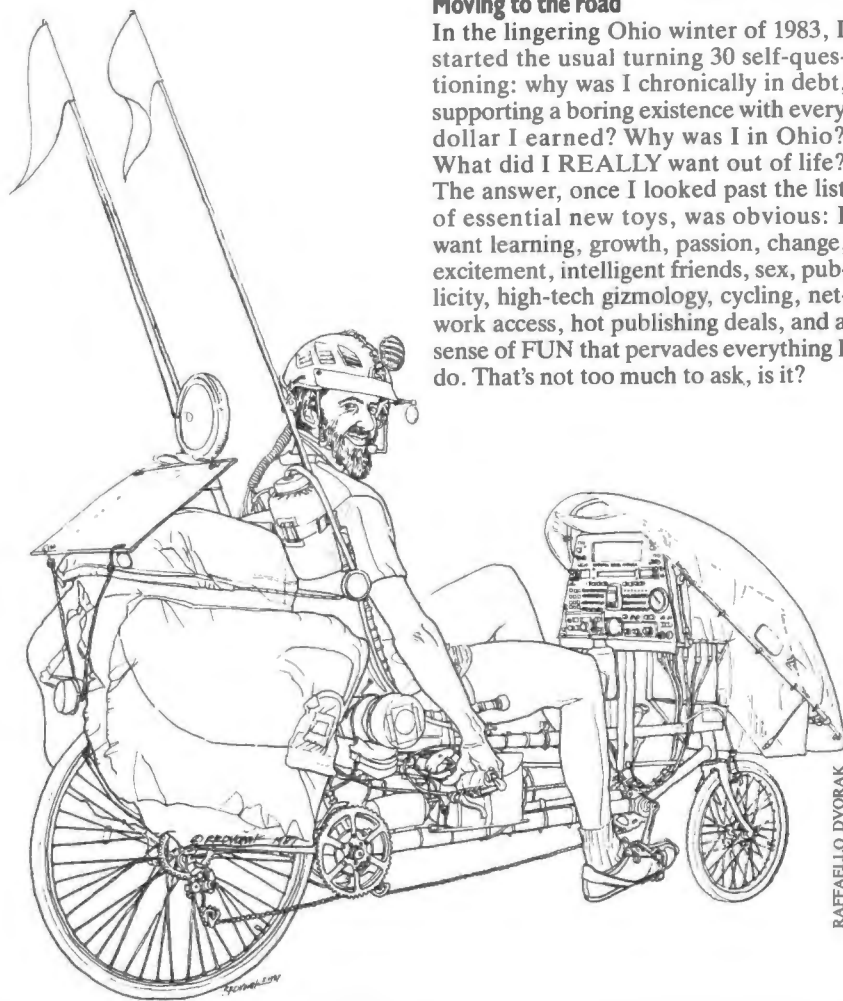
Well, if I told you that I live full-time on a 100 kg (220 lbs) recumbent, and am roughly 19,300 km (12,000 miles) into a journey of unknown length? What if I also noted that the bike is equipped with 5 computers, as well as 2 solar panels, ham radio, data communication, speech synthesis, and a handlebar keyboard? This is high tech of a different flavour – the 1.2 Megabyte Winnebiko II.

I have stopped in Silicon Valley for a 2 month system upgrade marathon before heading back into the wilderness, and before I leave Tech Mecca I'd like to introduce you to my machine. But before I talk about the bike, I should make a few general comments.

Why did I trash a stable suburban Ohio lifestyle (that's one reason right there) and move my freelance writing business to the road? Why do I keep it up year after year, never tiring of the madness, the risks, and the brutal constraints of gravity? Why do I carry 22 kg of electronic equipment? And... am I just an eccentric or is there something in this for the REST of the bicycle touring community?

Moving to the road

In the lingering Ohio winter of 1983, I started the usual turning 30 self-questioning: why was I chronically in debt, supporting a boring existence with every dollar I earned? Why was I in Ohio? What did I REALLY want out of life? The answer, once I looked past the list of essential new toys, was obvious: I want learning, growth, passion, change, excitement, intelligent friends, sex, publicity, high-tech gizmology, cycling, network access, hot publishing deals, and a sense of FUN that pervades everything I do. That's not too much to ask, is it?



RAFFAELLO DVORAK

My real world, in the context of all that, felt like prison. The solution was self-evident... all I had to do was pack a portable computer onto a recumbent bicycle and travel the country, supporting myself by freelance writing along the way and using computer networks as my "enclave of stability". No problem.

A megabyte bicycle?

Now you see why all the computers: the Winnebiko is my office, my electronic cottage on wheels. It has been growing more and more elaborate as the years pass – allowing full-scale word-processing through a binary handlebar keyboard and data file transfer via packet radio. I have decoupled from the real world, and move freely through physical space while remaining solidly rooted in dataspace.

Home has become a trio of rather non-traditional places: this radically decked-out bike, America itself, and the thickening global web of information networks that's accessible through any telephone. (My home system is GEnie – call me WORDY).

All this is generally intriguing to people, especially techies, cyclists, and would-be-travellers. But let's take it beyond that for just a moment and think about the cycling life. Consider the normal bicycle tour: a week or a month, perhaps more, a finite time bounded by financial constraints.

I've seen the tragedy: travellers cutting back on food because the bank account is down to three digits and sinking fast. Their sadness is tangible, for they see the journey ending long before they want it to. Another effect is the "macho cyclist" syndrome, which is fine on the rack but absurd on the road. I meet them too, but we never get to talk very long. They've usually set themselves a gruelling schedule of 160 km (100 mile) days, following a pre-planned route that's the closest possible approximation to a straight line.

I have no quarrel with racers, of course, nor with those who struggle to achieve their "personal best". But all too often, what should be a relaxed and therapeutic bicycle tour is handled instead like a corporate acquisition-- with all the myriad joys of discovery obscured by deadlines and ruthless objectives. It doesn't have to be that way.

It took me 4,800 km to stop treating State lines as trophies – to realize that worrying too much about where you're going destroys respect for where you ARE. Had I not been liberated by technology that lets me make a living ANYWHERE, I would never have had time to notice this fundamental truth.

The Winnebiko system

Okay, here's the technical content you've been waiting for – the anatomy of a high-tech bicycle (NASA style).



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When Lazer showed Eddy Merckx their new bicycle helmets, he was impressed. And when they talked about putting his name on their top-of-the-line model, he agreed because of its cool comfort, lightweight protection and unique features. Features like its • flow-through "airlite" liner

• removable, five position ratcheted visor for extra eye protection (light gray sun tint standard, clear and graded optional) • sweat absorbing front chamois (two sets) • quick release chin strap with chamois cover • distinct look in metallic colors (silver, anthracite or red). When you study all the features, you'll be as impressed as Eddy Merckx.

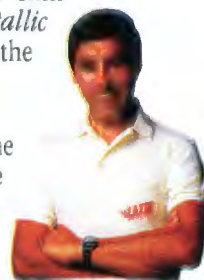
Lazer's standard helmet, the LZ1, provides the same cool comfort and lightweight protection as the Eddy Merckx, but without some of the special Merckx features. It's available in five vibrant gloss colors: white, black, red, yellow and blue.

You'll also be glad to know that both Lazer helmets meet or exceed the tough ANSI Z90.4 safety standard. That's not only good news for USCF racers and triathletes, but it's also good news for anyone concerned with safety and superior protection.



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LAZER

My main computer is the Hewlett-Packard Portable PLUS, an exquisite system with 1.2 megabytes of memory partitioned between system RAM and electronic disk. The high-contrast amber LCD displays 25 lines of 80 characters, and a built in 1200 baud modem makes the daily electronic mail check-ins easy. But what really sells the machine are the applications software packages baked into ROM: Microsoft WORD, Lotus 1-2-3, dbase II, a "card-manager" filing system, communications software, time manager and a whole library of utilities.

The net effect is a robust bicycle business system that runs on rechargeable batteries and weighs 8 pounds – a system that has become so much a part of my daily reality that I'm incapable of imagining nomadic life without it. It rides behind me, nestled in foam along with a 3.5 inch disk drive, sometimes accepting charge current from the bike's solar panels.

Computer number two, built into the control console, was once a Radio Shack (Tandy) Model 100 – upgraded to 256K and made truly useful through the addition of Travelling Software's Ultimate ROM. But the machine is hardly recognizable: its keyboard and case are gone, and the display appears on the front panel behind a lexan window.

What happened to the keyboard? It has been replaced by custom logic that

passes converted handlebar keycodes for software-generated commands. This system is intended for on-the-road text capture (not final editing) and thus connects with the HP via a front-panel connector.

The third system is the "bicycle control processor" (BCP) based on a Motorola 68HC11 Board. This low power machine embodies all of the bike's real-time control and monitoring functions, including handlebar keyboard code conversion, local network control (linking the other systems with each other), electronic compass processing, control of solar battery charging, security system supervision, diagnostics, status display, and so on. Assisted by about 50 IC's this processor essentially runs the bicycle.

Computer number 4 is a speech synthesizer that 'speaks' a text file transferred to it. The value of this on the bike is threefold: I can have the system read back on my own work text or incoming messages, and it is a handy way to reduce the volume of identical questions from curious bystanders. "I am the Winnebiko", it says (either at predefined intervals or under radio control), going on to explain the basics of this strange contraption.

The speech board can also respond to a security alert saying, "Please do not

touch me!" in a robotically threatening voice.

The fifth system is known as a "terminal node controller" – a Pac-comm product that handles packet data communication via radio. An unusual breed of computer network has quietly appeared in the last 2-3 years, a sort of digital anarchy of the airwaves, a computer network without corporate substrate. Anybody with a ham radio licence and a bit of equipment can participate: sending mail cross-country; transferring files; conferencing and so on. The network is young, but already offers coast to coast trunk connections, automatic message forwarding, dozens of linked bulletin board systems, and its own orbiting satellite mailbox.

With packet operation possible from the bicycle via the handlebar keyboard and LCD display, I can communicate data globally from a campground or while pedalling – even connecting to a gateway that allows access to all commercial network services without the need for a telephone. Ain't technology wonderful?

The handlebar keyboard itself is simple: four pushbutton switches are buried in each foam grip, spaced about 1.9 cm apart. I type in a binary code; my five strongest fingers, three on the right and two on the left, produce the lower case alphabet: the right little finger

ROSEBANK STACKHAT® The 'smart'



capitalizes. The left little finger is the control key, its neighbour selects numeric and special keys, and those two together cause the others to take on system level meanings such as file operations and major edit functions.

In practice, it's easy... a lot like playing the flute... with each combination accepted by the system when all the buttons are released.

So much for bicycle data processing. Now let's look at the other facilities.

The mobile ham radio station (KA8OVA) is a multimode 2-meter rig from Yaesu. In addition to handling data communication, it allows me to stay in regular voice contact with Maggie (my recumbent-borne travelling companion). Bicycle touring without some form of communication is frustrating, as anyone who has ever squinted into the mirror for minutes at a time well know. "What happened to him? is he OK back there?" With a boom microphone built into my helmet and a push-to-talk switch on the handlebars, Maggie is never far away (effective bike-to-bike simplex SSB radio range is over 3.5 km).

Of course, having 2-meter FM capability on the bike also connects me to a huge network of ham radio operators: I store the local repeater frequencies into the radio's memory as I approach an area, and periodically identify myself as an incoming bicycle mobile. This has led

to a number of interesting encounters and places to stay. And, through the repeaters, I can make telephone calls directly from the bike.

A CB radio is also on board, culturally useless by comparison, but still handy enough to justify its weight. I can talk to truckers, hail a passing motorhome for water (this saved my life in Utah), and chuckle at the residual good buddy subculture.

System security is an issue when living on a machine that looks like something from NASA. It's not that people try to steal it - most are intimidated by the technology - it's just that some let their curiosity extend to flipping switches and tinkering. To alert me to such behaviour, I built in a security system with vibration and motion sensors; when armed by a front panel keyswitch, any disturbance causes transmission of a tone-encoded signal that sets off my pocket beeper up to 3-5 km away.

Other radio-related devices include a digital short-wave receiver, a Sony Watchman micro-TV, and an FM stereo. Naturally, there is also an audio cassette deck, for sometimes (laws or no laws) it takes more than a granny gear to climb a mountain.

Speaking of gearing, the bike is equipped with some unusual mechanical hardware. A custom 36 speed crossover system of 3 derailleurs provides a 16.9 inch

granny gear, a 23" "high granny" and half-step from 33 to 144. With the Zipper fairing and the recumbent's aerodynamic advantage, I can cruise comfortably at 24-27 km/h (assuming a good breakfast and no unfriendly winds).

Peak speed so far, flying down a mountain, was 80.6 km/h.

Stopping power is critical with my 181 kg gross weight, of course. Moving that much stuff down hill at 80 km/h is profoundly exhilarating (on a recumbent, I might note, the entire world, not just the road surface, blurs into an impressionistic confusion of streaked light and colour). Stopping is another matter. The Winnebiko II has three brakes: a Phil Wood disc actuated by my left hand and a pair of Mathauser hydraulics controlled by my right.

The disc is nice for speed regulation without rim heating effects; the hydraulics will stop anything, outperforming the various mechanical models I have tried and discarded over the years. To control them with a single lever, I machined a header for the master cylinders, with a sliding cable stop and proportional transfer bar to permit a variable front-back braking force ratio.

The frame itself was custom made by Franklin Frames of Columbus, Ohio - after I did enough brazing in my basement to convince myself that

family head gear



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Rosebank Stackhat, the Aussie Life Preserver, available in a full range of sizes, Junior and Senior Models, for both Children and Adults. It is now available in a Snazzy Pink, a Reflective Black for your safety, in addition to the ever popular Brilliant White and Safety Yellow.

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K35

industry's best heat evacuation system. It is designed with major

air vent channels which draw the rising heat out of the rear of the helmet while allowing a gentle air flow over the head. The style of the Kiwi K35 bicycle helmet



is masterfully produced by the wind tunnel design of Bertone, the international auto designer. But the Kiwi K35 Bertone does not stop there. It also sets the Kiwi standard of safety which surpasses that of any other helmet. The helmet's shell is made of a new, ultra light weight generation of Lexan® polycarbonate which totally encloses the bicyclist's head instead of leaving it practically unprotected as some other helmets do. So “take off” with the style, comfort and confidence of the Kiwi K35 Bertone bicycle helmet.

The Kiwi has a thick expanded polystyrene liner and is fitted with comfortable velour faced removable sizing pads. There is a small gap between the shell and the liner which allows good ventilation through the front vents across the scalp and out the rear vents. The K35 also has a unique retractable smoked plastic visor and a quick release chinstrap. The Kiwi meets and exceeds ANSI Z 90.4 and Snell Foundation Standards.


Kiwi
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framebuilding is an art form. The geometry is entirely custom, suited to my giraffe body and the special requirements of all this on-board hardware.

Power for the electronic systems is derived from a pair of Solarex photovoltaic panels, producing 10 watts each in full sun (roughly 1.3 amps total into the pair of 4 amp-hour batteries). These new SX-LITE units lack the traditional mass and aluminium frame, and are each 31 x 43 cm.

Since they can pump enough current into the Ni-Cads to overcharge them, I have built in extensive power monitoring and control circuitry: a digital panel meter with a thumbwheel switch can show instantaneous current into or out of each battery (as well as any system voltage), and BCP can throttle back the charging process if its calculations indicate that the batteries are full (percentage charge values are displayed on the console).

Other voltage beside the two 12-volt battery buses are needed throughout the system, and this is one of those areas that can cause significant overhead if attention isn't paid to losses. There is a small aluminium box containing switching supplies that coolly provide 3,5,6,9 and 12 volts (all available on the front panel for external accessories).

Considering the special requirements of a bicycle system, the extra design effort here has paid off well: when the two processors required for text editing are active, total system current drain is only 130 milliamps. A sixth power supply, unrelated to the others, is mounted up front with a coiled cord to allow battery charging if I have gone too long without sunshine.

Instrumentation on the front panel is largely geared to the major electronic system already described, but there is also the obligatory Cat-Eye Solar cyclocomputer to display speed, distance, cadence, and so on. This elicits interesting comments from fellow bikies, who stare at the machine in awe then suddenly recognize something familiar.

In addition, there is an altimeter (useful on mountains, and also helpful in predicting weather conditions), an Etak electronic compass, time/temperature display, and assorted system status indicators.

Mechanically, the electronics package is designed to separate from the bike with a minimum of effort. I open 3 toggle clamps, unplug 6 connectors, and take it into the tent at night, yielding a "tent control system" just as useful as the mobile variety.

The 18 kg unit handles heavy downpours with no problem. With the fairing and velcro-fastened waterproof covers it has withstood all day rides that quite saturated my Gore-tex rainwear. So far, the system has suffered shock and vibration without incident, unfolding easily

for service but surviving heavy abuse on the road.

Safety factors are always a major concern when you habitually press your luck by living fulltime alongside logging trucks, drunks, motorhomes, and the routine madness of the highway. I have become a firm believer in helmets, reflectors, orange flags and GOOD lights. Bicycle Lighting Systems offer a line of industrial grade products that quite outshine the typical bike lights.

I went with a 17.75 cm yellow barricade flasher that makes me look like a roving hole in the road, a 50 mm red tail light, and a 10 cm sealed beam headlight. In addition, I have recently added a Cycle-Ops halogen helmet light, which has the delightful characteristic of putting light where I'm LOOKING, not just where the bike happens to be pointing. (Admit it. You too have zigzagged drunkenly through neighbourhoods at night, trying to highlight street and house number signs).

The bike is also capable of making a lot of noise, with a regulated aluminium pressure tank and handlebar button feeding a pair of air horns – as well as manual override of the 130 db siren.

Finally the machine is equipped with all the usual bicycle touring gear: stove, food, clothing, tools, candles, medical supplies, microfiche documentation library, flute, binoculars, camera, maps, digital test equipment, spare inner tubes, frisbee, coffee maker, office supplies, butane soldering iron, and so on. My tent is a vast "Prak Pod 4" from Peak 1, very much in the porta-condo class at 10.03 square metres under cover.

Other outdoor gear – North Face down bag, Gore-tex rainsuit, Patagonia bunting, polypro underwear, and so on – is undergoing constant revision as technologies continue to improve.

There: a marathon overview of the Winnebiko. If any of this seems insane, think about gravity and how long I would continue to drag around something that isn't practical (and preferably multifunctional). This is a wild blend of serious business and fun – a case of personal computers and technology carried to an exquisitely mad extreme.

If there's any message at all for fellow cyclists, it would be along the lines of fashion. Right. This affair would never have survived the confusion of start-up if I had followed the prevailing cycling fashions – ultra light weight, lycra tights, skittish frame geometries, aerodynamic spoke nipples – all have their place on the racing circuit. But if you're out there exploring the world on your trusty machine, make it an appropriate one, matched to all your needs. You – and it – will last longer.

To order the *Computing across America* book (US\$10 autographed), posters of the bike (US\$10), or a free flyer, contact *Computing across America Publications*, 762 Churchill Drive, Chico, CA 95926, 916-891-5750.

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ENGLISH HISTORY RE-CYCLED

Touring England's green and pleasant countryside

BY WAL LIDDLE

The summer mist hung low in the depressions whilst the chequered green, brown and yellow fields sparkled in the early morning sunlight. A baby brown rabbit crouched, quivering, in the long grass at the side of the road, ready to hop back through the hedge, at the first sign of danger.

The trees marking the boundaries were dark red copper beeches, the yellow flowered laburnum, the white hawthorn and the sycamore. A huge pink and white chestnut grew near one of the farmhouses.

Setting my gears, I swooped down the road, over an arched bridge that spanned the river into the sleepy 16th Century town of Arundel. The bow fronted shops climbed a hill dominated by the castle: a magnificent stone building complete with grassed moat, outer bailey and portcullis. It was from the inner bailey tower that the occupants had poured boiling oil over Cromwell's forces storming the gate below.

The great banqueting hall formed one of the wings of the buildings surrounding the inner courtyard. The cathedral like hall was adorned with larger than

life portraits of knights in armour and damsels in long dresses whilst the two huge fireplaces were large enough to burn tree sized logs. The dungeons contained suits of armour, swords, pikes, battle axes and flint lock muskets.

Leaving the castle, I returned to the cobble stone town square and outside the pastrycook's shop met Jack and Arlene Oakes from California, who were also bike touring. We left the town en route to Portsmouth via the back country lanes. These were very narrow, usually of one car width with a hedge on each side.

At Bosham, the houses were roofed with straw thatch in patterned designs. The church graveyard contained a headstone inscribed with a carving of a two masted sailing ship, with the following inscription:

In memory of THOMAS SON OF RICHARD AND ANN BARROW, MAFTER of the sloop TWO BROTHERS, who by the breaking of the horse (rope), fell into the sea and was drowned OCTOBER 13th, 1759 aged 23.

We arrived at Portsmouth late that afternoon in pouring rain, and were very glad to find a 'bed and breakfast' near the waterfront. The Naval base, in days gone by, had been noted for its ship building industry, established there because of the large oak forest that surrounded the town. The base now contained the hulk of the *Mary Rose* which

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An assortment of wild colours

completely. And enabling this lightweight wonder to set the new standard for the industry.

In fact, the Giro Prolight literally blows away conventional helmets when it comes to ventilation. With nine air vents, you always keep a cool head.

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And triathlete extraordinaire Scott Tinley has taken a load off his shoulders with the Giro Prolight, too.

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had recently been raised from the bed of the sea after lying there for 400 years. She was the flagship of Henry the VIII's fleet, named after his sister, and was reputed to be a fast ship of revolutionary design, one of the first purpose built warships.

On July 18th, 1545, the little walled town of 50 acres was the setting for one of the great sea battles that changed the course of history. The French fleet of 235 ships had anchored off the eastern corner of the Isle of Wight, while the English fleet of only 60 vessels was manoeuvring in the Solent. Ageing Henry had been made aware of the invasion plan and had arrived at Portsmouth three days before.

A contemporary painting shows fat Henry, dressed in cloth of gold, velvet and ermine, riding through his encampment of archers, pikemen and gunners. At the start of the battle the British fleet was becalmed and came under heavy attack from the French oared galleys but a breeze sprang up, enabling the British to retaliate.

It was at this moment that the Mary Rose heeled to the wind and sank, when the sea poured in through the open gun ports, resulting in the loss of 660 souls.

The museum near the hulk contained all the material possessions of everyday life in the 1500's - wooden and pewter mugs, leather jerkins, shoes, a spice mill, a wooden knife, bone combs, a backgammon set, a drum and the remains of a fiddle. The surgeons chest was found intact, complete with syringes and ointments, a thumb print being still visible in one of the jars. A number of wooden cases from the Armoury were on display containing hundreds of yew bows and arrows.

I left my two American companions and rode north to Stratford on Avon. This picturesque village is noted for its half timbered houses dating back to Shakespeare's time. My destination was Mary Arden's farm situated 4 miles out of town. The farmhouse is built of massive oak beams and posts, filled in with "wattle and daub" and roofed with straw.

In days gone by the building consisted of one storey, twenty-five feet high with two open fireplaces and a hole in the roof acting as a chimney. The dirt floor was overlaid with rush mats and when these became worn they were again overlaid with more rush mats which harboured fleas, rats and mice. The hens and geese were allowed inside contributing to the mess on the floor! The yard outside became a huge slop heap, there being no toilets. All human and animal waste was allowed to accumulate for one whole year before being cleared away!

Everybody bathed annually, and after bathing the girls would anoint their bodies with goose fat and then would don one cotton smock and up to eight



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woollen garments, according to the weather. Men wore similar clothes and people, rich and poor alike, went to bed soaked in sweat and manure. The clothes were only changed at bath time, so they literally fell apart. Fleas and lice lived in the clothes and inflicted people with all sorts of sickness and disease.

Certain everyday terms derive from those times, such as: *under his thumb* – when women were considered to be inferior to men and were beaten by their husbands at least twice a week, with a stick that “could be no bigger than a man’s thumb”. This custom was enshrined in law. Many wives were beaten because of rancid food. As there was no refrigeration and meat was a luxury, the women disguised the bad taste by the liberal use of salt and spices.

Chairman and chairman of the board came from the practice of the husband sitting at the head of the table, in a chair with arms, when everybody paid deference to him. The woman’s chair had no arms.

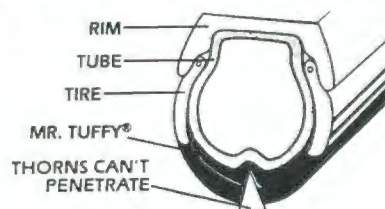
Board referred to the table, which consisted of a slab of oak set on trestles and from which derives the meaning food and lodging.

Turning the tables came from the practice of refusing food and lodging to your enemies by folding up the trestles and placing the table against the wall.



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The word *dole* derives from the practice of *doling out* bread to the poor, by rich people such as Mary Arden.

The windows in the house were very small, made up of multipaned pieces, because glass casting was in its infancy and the materials were very costly. Can-

dles and rush lights were mainly used for illumination, with a cow’s horn being used to shield the flame in a metal lantern, for outside use.

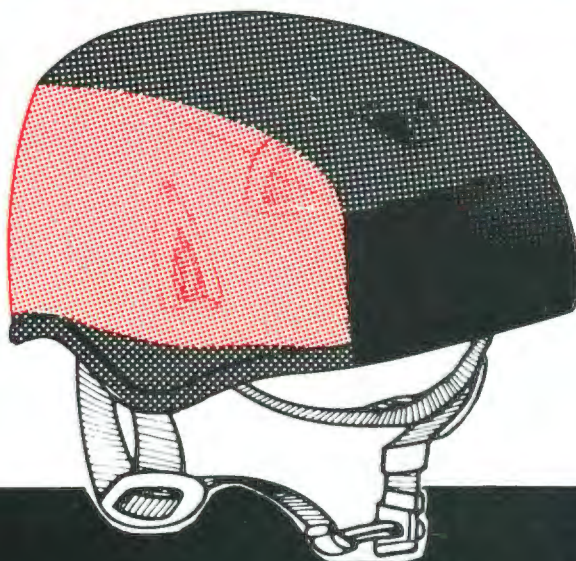
As I cycled round the bend I wondered what story the next town would tell.

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DAVID HOFFMAN

THE GREAT BRITISH BIKE RIDE

A splendid time for all on Britain's zaniest and most popular long distance bike ride.

BY BETTINA SELBY*

Everyone knows that British royalty has a long and romantic association with the Highlands of Scotland. Even so, the weary cyclist struggling upwards against a strong headwind, on the long, steep climb through Glen Ogle does not expect to encounter Queen Victoria seated in majesty in the middle of a rough patch of boggy hillside 200 yards away, surrounded by wooden cut out figures of red coated guards.

Nor do the senses regain their grip on reality at being approached by a very large, stout person in impeccable morn-

ing dress who introduces himself as a representative of Saatchi and Saatchi who have taken out the rights on her majesty for the next eighty years. At this point someone from the long line of slowly moving cars yells.

"What's going on here?"

"What's going ON? What's going ON Madam?" rejoins the fat equerry with haughty disdain. "A traffic jam is going ON Madam and you are adding to it. Kindly move along there."

The cyclists in the meanwhile forget their fatigue in the enjoyment of the saucy exchange bellowed across the hill-

side which reveals that the Queen yelling for Winston to bring her a cigar is another of the Natural Theatre chaps in drag.

Signed knighthoods are bestowed liberally on the least deserving of the cyclists – mine dubbed me Lady Steerwell.

Panting up a narrow precipitous lane, closed in by woods, the unsuspecting bicyclist is likely to be confronted by two fern-draped soldiers with blackened faces charging out at him from each side of the road; an arrow-bedecked convict breaking stones with a sledge hammer pleads for passers by for a key to unlock his manacles and a man with a duck on his hat and a blunderbuss in his hand bobs up from a hedge making quacking noises every time a cyclist appears. Each zany incident raises the spirits and gives the special flavour to this most unusual and joyous of bicycling events.

I must admit to having had strong reservations about going off on a 700 mile, two week cycle tour with 140 other riders and a supporting cast of another couple of dozen. As it happened I could only do the last half of the tour and am left deeply regretting what I missed.

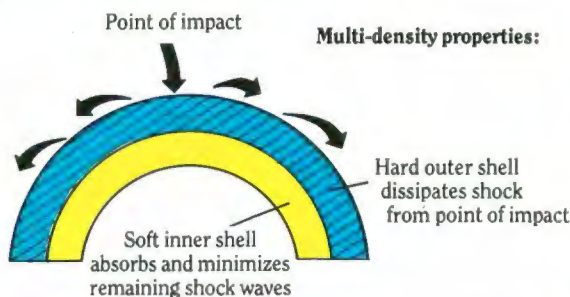
So how does it come about that the confirmed long distance, lone traveller enjoyed this 'circus' so thoroughly? Well in one word - FUN – it was all the greatest fun imaginable and not just the Natural Theatre Company's hilarious happenings, but the whole organisation – cooks, bot-

* Bettina Selby is the author of *Riding the Mountains Down* the story of her epic solo journey through India and Pakistan. Her latest book *Riding the Desert Trail* has recently been published by Chatto and Windus.

Don't try this with your helmet, unless it's the new LT 700

by Life Technologies

This is not just another styrofoam helmet! This is the LT 700, the only multi-density helmet on the market today. What makes the LT 700 superior to any other helmet is a process which marries two densities of expanded polystyrene into a unique single piece with a hard exterior portion and a soft interior portion. This multi-density protection allows impact to be dispersed around and across the surface of the helmet, which eliminates shattering of the protective coating, while the soft inner shell minimizes the amount of shock transmitted to your head.



Head injuries are life threatening. The only cure is prevention, wearing and ANSI and SNELL approved helmet can greatly reduce the risks of concussions, lacerations or even skull fractures. So why not wear the safest helmet you can buy? The LT 700's performance far exceeds the requirements of both ANSI Z90.4 and SNELL standards as evidenced by independent engineering/testing services. *(See chart)

HELMET	TEST	AVERAGE "G"
LT 700	ANSI	84
LT 700	SNELL	131

LOW = SAFETY

under 200 G = Comfort & Safety (The lower the better)
 200 G - 300 G = Discomfort/headaches
 300 G - 400 G = Possible brain damage
 400 G and up = Permanent brain damage

The LT helmet meets the impact energy attenuation requirements of Clause 6.2, AS2063.1-1986.

Check the energy rating of others to satisfy yourself that the LT has the lowest G rating of any soft shell helmet on the market.



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Finally, perhaps one of the nicest features besides safety is the price. The LT 700 will cost you significantly less than its competition. How many more reasons do you need to choose the LT 700?



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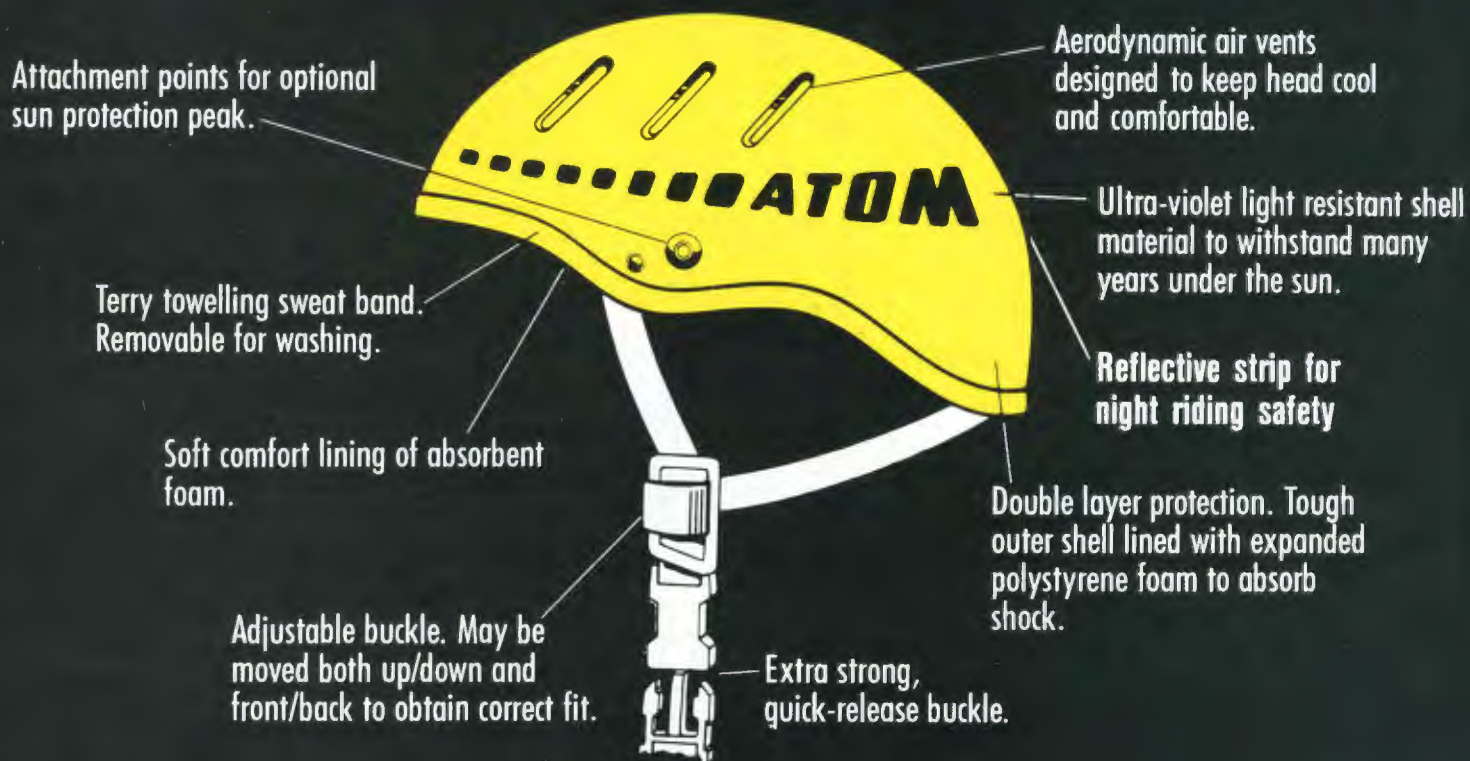
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DAVID HOFFMAN

tle-washers, marquee erectors, fixers, nurses, mechanics and baggage handlers.

The whole exercise was raised to a level which transcended the mundane and became an art form. All thanks to the strange genius of that organising wizard of London to Brighton bike ride fame, John Potter.

The bicyclists were aged between 12 and 72. There were all types and mostly professional – doctors, teachers, lecturers, nurses, architects, a T shirt designer and so forth, with a sprinkling of the unemployed and retired. Quite a few were at school or college and a fair number of all age groups had come from abroad – Holland, America, Australia and South Africa.

There were also some kids in trouble with the law who were there instead of being put away. Most people were not keen bicyclists at the start. Few had done much touring on their own and most didn't know a sprocket from a chain-wheel, but they cycled none the worse because of that.

The majority were on the ride because they wouldn't have attempted such a thing on their own but wanted the challenge and felt that they could do it with the support the organisation provided.

No-one gave up. Two said that although they had enjoyed the experience they would never go on a bicycle tour again, but most of the previously uncommitted finished up ardent cycling fans, and all claimed that bicycling aside, they had gone through an experience that they would never forget. They would "never be the same again."

"The food is fantastic," the under twenties all assured me with great seriousness and said that they thought it contributed the most to the success of the venture. Huge urns of coffee and tea and piles of bread, butter, cheese, peanut butter, jam and honey were always waiting under the large marquee which the catering team had raced ahead to set up by the time the riders began to drift in. And this 'tea' remained available until dinner was almost ready.

Dinner was always large, well thought out and vegetarian or otherwise and breakfasts were gargantuan. The routes were chosen so as to provide not only the quietest roads and the best scenery but also plenty of good (and pre-warned) eating places at appropriate intervals.

People set out at varying times each morning with their route map, alone or in twos and small groups, everyone quite happy to ride at their own pace. There were occasional burn-ups – the young by and large with all their surplus energy, who were out to impress each other – or the glamorous young Dutch girl who was a very strong rider and the catalyst for a great many manly displays.

There was also a small young English woman on a totally unmodified, three speed Halford's machine, which she had been using to go to work on. She had no idea that she was a phenomenon but not even the 'death and glory boys' could get anywhere near her let alone overtake. Some people stopped often and went very slowly; some never stopped. Some

arrived at the camp site by two o'clock; others crawled in at seven p.m.

Very few made use of the bonk wagon as all were determined to make it to Skye under their own steam and in the rear there was always John Potter on an ancient sagging Moulton to charm the weary over the last few miles.

I could discern no sense of competition at all between riders. Instead there a really good atmosphere of cooperation and help and encouragement where and when it was needed. Everyone wanted everyone else to succeed and the only enemies were the headwinds and tired muscles.

The organisation was such that there was no merit at all in racing ahead to be the first at the night's camp; the way was chosen to show people the best of the British countryside and to encourage them to stop often to enjoy it. But it was not so easy that the journey could be achieved without a lot of effort. A hilly sixty mile day with a pernicious North Westerly blowing in one's face requires a considerable expenditure of energy and willpower and is rewarded by a proportionately large sense of personal achievement as John Potter well realises.

After the hugely restorative tea and hot shower, tiredness just seemed to evaporate and it was no effort at all to collect the baggage from the van and erect the tents. The camping sites were large and lent themselves as the ride did to people

doing 'their own thing' and pitching either far away in aloof isolation or in a companionable jumble.

Dinner seemed to follow immediately and after dinner there was usually some hilarious form of local dancing or some other off-beat entertainment, and as someone remarked the difficulty was finding time for the more mundane things like washing out a pair of socks.

"I had my best moments alone," said one rider "Just cycling through the superb countryside. But it was because I knew there was company there whenever I wanted it and that in the evening there would be all these new found friends to share the day with." This was a sentiment echoed by many and one 18 year old girl went so far as to say the companionship of the ride was the best part of the trip though it had been what she had had the greatest reservations about to begin with. "The children were so adult and the older people were so young," she said. "You could talk with anybody. I can't remember ever having had such a good time."

Why it was all such fun was not really immediately apparent - good food, good camping sites, entertainment, the best organisation imaginable do not necessarily produce such overall euphoria. It wasn't until I began to get an inkling of what lay behind the event that I began to understand how unique it really is.

The key is John Potter himself. "A shy retiring sort of person," one rider described him - not a view I share. I see him more as a sort of magician with a wayward sense of humour. He has a vision which needs large numbers of people to realise - ordinary people, preferably 'those who have never been further on a bike than down to the local' he says.

To create his 'happening' with these 'ordinary people' he had attracted a solid core of talent around him, a team who for the rest of the year do other things like manage restaurants, lecture at university and the like. Once under John Potter's spell this team performs with the same panache and zany humour as the Natural Theatre Company, and with an awesome degree of hard work and competence.

That the riders have fun is thanks to these organisers' eighteen hour days, every moment of which, whether they are peeling potatoes or sorting out the plumbing, they are 'on stage' - which shows what a hold John Potter has over them. His vision becomes their vision and the only thing that gets them riled is some rider who refuses to have a good time and spoils the happening. I think these must be a rarity, but there is a mechanism for dealing with them.

"Fried eggs" intoned the general odd jobber known as the Rabbi. "Never put foot to boot Me Dear before you shake it

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42 Freewheeling



out if you've crossed us" "Not soft fried eggs?" I enquire with horror.

"No, soft fried eggs is illegal me dear. Hard fried eggs washed is what we use. Four of 'em goes a long way in a small tent. I am pleased to report that I didn't need this treatment.

You may have missed this years Great British Bike Ride (July 23 to August 4) but you can start planning for the next. Contact Bike Events Ltd, PO Box 75 Bath BA1 1BX UK for details. This years ride cost £285 and included campsites, breakfasts, afternoon tea, supper, support vehicles, mechanic, nurse, entertainment, route maps and outward ferry to Skye.

RESOURCES

British Tourist Authority has a terrific book on cycling in Britain. This free 36 page guide is crammed full of useful information about putting your bike on public transport in the UK, the laws every cyclist must know before setting off on their way through England's green and pleasant land and suggested itineraries that incorporate scenic country lanes and historic villages and towns. You will be able to plan your cycling trip using youth hostels which are marked on the route maps, or 'B&B's' (Bed & Breakfast) which are explained in the accommodation section. There is even a brief explanation of road conditions in Britain and of course, a selection of cycle hire companies which are conveniently located near the suggested itineraries. For further information contact the British Tourist Authority, 171 Clarence St., Sydney 2000, phone (02) 29 8627.

Bike Events PO Box 75 Bath Avon BA1 1BX UK. The originators of the London to Brighton Ride and the Great British Bike Rides have a large program of rides both in the UK and mainland Europe. Their Grand Tour of Europe takes you from Paris to Florence over the Alps. Write to them for their free catalogue.

There are a number of good books available for the bicycle tourer and a list is provided at the end of this section. If you are planning a lengthy holiday you should consider joining the Cycle Tourists Association. This group always welcomes foreign visitors and will set you up with their very good guide book offering detail on every good cycling area imaginable. The CTC office is out side of London and its a good idea to phone them to tell them you are coming so you get a good reception from their staff. CTC 69 Meadow, Godalming, Surrey GU7 3HS. (04868) 7217.

BOOKS

Wal Liddle recommends *Weekend cycling* by Christa Gausden published by Hamlyn. A selection of fully planned scenic routes for easy touring illustrated

with maps. It also has potted histories of the places mentioned in the tours. The Bicycle Institute of NSW sells this book in their well stocked office/shop.

The Pan/Ordinance Survey book *Cyclists Britain* is a good paperback guide to the best touring areas using two colour maps based on their 1:250,000 and 1:50,000 base series. The book is a straight guide so information is presented in a rather terse format. It costs \$18.25 in Oz

John Whatmore's older less flashy *CTC Book of Cycle Touring* is pleasant to read and has some good tours but half of the book is useless 'how to get started in touring' info. The maps are purely diagrammatic so you should get some coloured OS maps from a London or provincial bookshop to compliment this pleasant little guide. Grafton Books (Collins) \$8.95.

Britain does not include Ireland so the books mentioned above do not cover the Emerald Isle. A new paperback guide just out nicely compliments Eric Newby's latest book reviewed elsewhere in this issue. Its called By Bicycle in Ireland and is written by Martin Ryle. This pleasant and informative book describes 22 tours throughout the Republic of Ireland written in a personal style which makes for good armchair as well as on-the-road reading. The book costs \$18.95, is published by Impact Books (Harrap) and distributed in Australia by the Australasian Publishing Company.

ROUND IRELAND IN LOW GEAR

BOOK REVIEW BY ROSS ARMSTRONG

Round Ireland In Low Gear by Eric Newby. Published by William Collins Sons & Co Ltd London 1987 Hardback 308pp, \$35.00.

Eric Newby is one of the best travel writers around at the moment and this, his latest book, is another example of his fine talents. He has already had 13 books published and the range of subjects is large. Tall ship voyages *The Last Grain Race*, mountaineering *A*

Short Walk in the Hindu Kush, boating *Slowly Down the Ganges*, conflict and romance *Love and War in the Apennines* and fashion *Something Wholesale* are just a few of the things he's written about.

In *Round Ireland in Low Gear* he writes about a series of cycling tours with his wife Wanda between December 1985 and October 1986. They didn't go for the extended thousands of miles, fear, pain and danger, too tough to care – too stupid to notice type of cycle tour. Instead their's was a series of tours staying in pubs, bed and breakfasts, etc., and not too much soul searching about using buses, trains and their own van when it seemed the rational thing to do.

Given that a lot of their touring was done in the middle of an Irish winter this seemed more than rational. However to set off in the middle of a gale that last touched land above the Arctic Circle does strike me as being less than rational.

The main reason they went travelling in winter was that their garden and woodland back home in rural Dorset needed lots of attention at any time of the year except the coldest months.

The first chapter is titled 'State-of-the-Art' and is a typically Newbyish account of 'gearing up' for an expedition. Expecting rough and hilly conditions he decided that mountain bikes, hiking boots and 'Wellies', Goretex suits and "what bicycle builders laughingly refer to as 'optional extras'" were going to be *de rigueur*.

All up his bike weighed in at 93 lbs and 9 ozs, which included 15 lbs 14 oz of maps and books. This was rather mercilessly pared down on the second and subsequent trips. The bike he chose was a Crossfell and Wanda's a Wild Cat, both made by Overbury's of Bristol.

There was no problem in producing my Crossfell in time, as there was a frame in stock of the right size that only needed stove enamelling. Wanda's Wild Cat, as its name suggested, was more difficult. It would have to be built from scratch in seven days. But first her inside leg had to be measured for the frame – a feat difficult to accomplish in a crowded bike shop when the subject is wearing a skirt – and all work ceased while I performed it.

The bikes were pretty well what's regarded as state-of-the-art in Australia at the moment – Shimano Biopace chainrings and everything else, 18 gears, low panniers, TIG welded frames, cantilevered brakes, etc, etc....

Newby's writings are invariably more than just 'what we did on our trip'. He has a lovely sense of history and place and after the first chapter the daily small events and doings that make up the bulk of writings on cycle trips are fortunately scarce. Boring accounts of punctures fixed in 38 seconds and "how I jury rigged a replacement Campag derailleur

from a beer can and a piece of fencing wire' are not to be found in this book. For him the bicycle is a means to an end.

As they travel through Ireland he discusses the history and romance of the areas they're in and I found my interest never flagged. This is certainly a remarkable country to travel through and his observations are enriched by accounts of things that happened recently or long ago. While in Skibbereen he discusses the children's cemeteries in the area that date back to the worst year of the Great Famine in 1846. To impress upon the reader the sad history of this place he quotes from a letter sent to the Duke of Wellington from a magistrate at the time:

...on reaching the spot I was surprised to find the wretched hamlet apparently deserted. I entered some of the hovels to ascertain the cause, and the scenes that presented themselves were such as no tongue or pen can convey the slightest idea. In the first, six famished and ghastly skeletons, to all appearance dead, were huddled in a corner on some filthy straw, their sole covering what seemed a ragged horsecloth, and their wretched legs hanging about, naked above the knees. I approached with horror, and found by a low moaning they were alive, they were in fever, four children, a woman, and what once had been a man.

Reading things such as this the hatred that some of the Irish have for the En-

glish is at least understandable. However this type of gloom and doom does not permeate the book. There is much humour, some of it delivered deadpan with an invitation to the reader to laugh if you think its funny.

Wanda asked him (the owner of the cottage they were staying in) if he spoke Gaelic.

'No way!' he said firmly.

'But I thought they taught Gaelic in school.' 'No, they only teach us Irish,' he said.

Newby's character comes through very well in this book, as it does in the others of his that I've read. He seems to have the approach to travelling that is associated with English amateur gentlemen explorers of the nineteenth century. Not really gung ho as much as whimsical, very determined and understated.

Unfortunately when most of us travel it's three or four weeks annual holidays with much rushing about and too much crammed into too little time. Newby is a professional traveller, for want of a better description, and the approach he has to travel comes through his writings very well. His wanderings are not holidays, but something more.

Certainly they are pleasurable but he seems to derive something else from them. Sometimes it may be individual freedom and a reminder that in the end it's not all that serious after all, at other times it may be opportunities to find out things about oneself or the world, or both. This idea of what travel can be comes out very well in this book and makes it worth reading for that alone.

His descriptions of Ireland and the Irish (... the Eighth Walking - and Talking - Wonders of the World) are free of the temptation to reinforce stereotypes and score a few cheap laughs. He doesn't travel with his mind made up about what he's going to see and experience. There is an openness and spontaneity in his observations and comments and a disinclination to share his 'profound insights' with us poor mortals.

This is a well written book that can be enjoyed at several levels and is recommended to the cyclist, the traveller (be they in the saddle or in the armchair) and anyone else. It would definitely be compulsory reading for the intending visitor to Ireland and has a well compiled index and a helpful bibliography that includes the Cyclists' Touring Club Irish Road Book, 1899.

Now that the whole thing was more or less over I realized that we hadn't really needed mountain bikes at all: there had been no point at which we required those enormous great tyres, and even two chain wheels and twelve gears would have been quite sufficient. 'Next time...' I was about to say to Wanda, but I managed to stop myself.

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The Rock looms large as a Cranks rider chases a Northern Suburbs rider to the stage end. Photo Ian Douglas.

RACE TO THE ROCK

This year the Simpson Desert Challenge hit the 'Big Wet'. Undaunted the riders chose a dryer part of Central Australia to let off steam.

BY HEATHER NESBITT AS TOLD TO WARREN SALOMON

THE SIMPSON DESERT flooded! Oh the months of planning; the training; the effort; the expense! Yet, here we were in Coober Pedy somewhere north of Adelaide and kilometres

from our home base in Sydney hoping that everything would work out fine and our team would race to victory in the second annual Simpson Desert Challenge.

It was not to be. The Simpson Desert

was flooded. And the Police were making the point loud and clear when they warned the mountain bikers and their crews assembled in the small outback mining town on Easter Saturday that they would lock us all up if we tried to drive into the Desert.

The record rains that flooded the Simpson and most of Central Australia the week before were bucketing Sydney as our team in two hired Budget 4WD vehicles set out. West of the Divide the clouds were left behind and it seemed incredible that after driving halfway across the continent under clear blue skies that we could go no further because of a flood. Oh well, that's Australia all over.

This extravaganza had been months in the making. Not the race its self but our preparation for it. Our four riders Steve Nesbitt, Graham Youdale, Brett Robinson and Jeff Conly were fit and ready for anything the sand hills of the Simpson might serve up. But without the Simpson to contend with things took a different turn.

To support 'the boys' we had an able crew of five all allotted predetermined tasks. Heather Nesbitt was the operations manager, chief cook and bottle washer and resident motivational expert (every team has to have a motivational expert). Suzy Robinson treated tired tendons as our masseur, Susan Douglas managed to maintain hospital strength cleanliness throughout the trip as our resident medico while her husband Ian performed miracles at the wheel of the first support vehicle – known in CB jargon as "Cranks One". The Cranks Two driver, Hugh Chalmers, completed the crew.

In Coober Pedy the competitors and crews met with the organiser Hans Tholstrup to decide on the fate of the race. We had all come so far and absolutely no one wanted to go home early. The desert was out of the question so Hans in his laid back manner suggested a few alternatives.

In the end it was decided to start the race from the NT/SA border and ride in stages along a dirt road running west to Mt Connor and then north to Uluru (Ayers Rock). To get to the start point involved another five hours drive but with half a continent behind us a few hundred kilometres seemed insignificant.

So on Easter Sunday the race got under way and as the boys headed off west we headed north to Kulgera to replenish our supplies. Unfortunately the team had reached the lunch stop before we could get back. We knew they were angry when we began to hear the



'Cranks One, Cranks Two; where the hell are you?' messages on the CB.

They were not amused. The first morning's ride had not gone well. The soft, shingly, corrugated road surface required enormous concentration. Physical strength was not enough. They had to be constantly alert for the best line to ride on an ever changing road surface. Often there wasn't a clear path at all and so the loose surface had to be endured.

To make matters worse the Ensure (a liquid food preparation recommended by our consultant nutritionist prior to the ride) had not been a success. The green coloured substance didn't sit well with the boys and they complained of iridescent runny poos – and lots of them. Complex carbohydrates became the rage from there on.

After food, drink and massage the boys pedalled off for the afternoon's exciting stage: lots and lots of 15 cm deep bulldust. Tyre pressures were kept at 20 psi.

At the end of the first day we surveyed the damage. All the band mounted water bottle cages had fallen off due to the vibration but overall the bikes were holding up well. The boys were not so lucky. Some complained of sore wrists and battered bums. A bush shower managed to restore decorum in the ranks before the night fell.

On the start of the second day Danny Mariotti and Greg Mickle from the Fleet Cycles team were about 4 minutes ahead. At the start of each stage their crew would play theme music on their car loudspeakers. A bit like Bond at Newport in the America's Cup. It seems they had a motivational expert on their team too.

Not all of the roads were dry. The recent rains had left huge pools across the road in places limiting our choice of riding surface. Graham is seen here leading Brett. Photo Ian Douglas.

By the end of the second day our lead riders Brett and Graham were losing time to the riders from the West who crossed the stage finish together 8 minutes ahead of Brett and 18 minutes ahead of Graham.

The last day took us up to the Rock for lunch and then in the afternoon to the Olgas further west. We arrived at the Rock unannounced and from a different direction to the usual tourist busloads. This created a small kerfuffle with the traditional owners and the Park officials who pounced on the vehicular convoy as

At the end of the race all the riders pose for the camera and dodge the passing tourist busses. The Cranks team are in the plain white (?) shirts

soon as we were spotted. After some negotiations and lunch the riders headed off to the Olgas to complete the final leg of 26 km of dirt, corrugations and busses.

In the overall placings Brett came in at 5th, Graham 6th, Steve on 10th and Jeff at 15th. The boys were glad it was all over. You can tell by the looks of restrained glee in their faces in the final picture.



SCARPA MOUNTAIN BIKE BOOTS

Product review by
WARREN SALOMON



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NEVER would have imagined that the mountain bike would have taken on in Italy – but it has. The Italians have taken to fat tyres with the same enthusiasm that they have for bicycle racing and state of the art carbon fibre bicycle frame design. Thank goodness, for now one of the worlds most respected specialist footwear manufacturers, Scarpa of Asolo, has started making boots designed for the fat tyre fanatic.

The Scarpa Mountain boot is made from a multi coloured combination of leather and heavy duty nylon. The boots are designed for the roughest conditions yet they are surprisingly lightweight. The heavy patterned 'Musher' sole does not slip on the pedals and has enough thickness to protect the bottoms of the feet from the most aggressive pedal profile.

The Scarpa's are cut high and have a velcro tab to secure the very top of the boot. The top set of eyelets for the laces are hook shaped so the boots can easily be laced and tabbed up high for full ankle protection or laced low and untapped for maximum ankle movement.

At first I felt that a high boot was not the kind of footwear to be cycling in but I quickly changed my mind when I used these boots on a cross country fire trail ride. The tabs can be loosened off so as not to restrict movement. In loose dirt and deep creek crossings the high cut of the boots kept the gravel and water out and my feet dry and comfortable.

To my surprise I was the only one of our group to survive two axle deep river crossings with dry socks. All the more pleasing as the tops of my socks ended up wet yet the water didn't penetrate further down into the boot. The walls of the boot are padded and the tongue is sewn-in up high to keep the moisture out.

Scarpa, incidentally, make some of the world's best bushwalking and mountain climbing boots and shoes. I must confess that their walking shoes I currently use have got to be the most comfortable footwear my feet have ever had the pleasure to walk around in. There is nothing more satisfying than to have warm dry feet when it's wet and cold.

My walking shoes are much heavier and have full leather uppers. By comparison the Mountain boots are lightweight and for the demanding pursuit of rough road riding they easily suit the task. Full points for good boots.

Scarpa Mountain boots come in an attractive three-tone (red, blue and yellow) colour scheme cost around the \$180 mark (good footwear doesn't come cheap) and are available (in European metric shoe sizes) from selected specialist bicycle retailers.

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BAIRNSDALE WARREN MEADE CYCLES (051) 52 5665 **BALLARAT** SHAW CYCLES (053) 35 6151 **BALWYN** RAYS BICYCLE CENTRE 830 5902 **BELMONT** BIKE POWER (052) 277 0870 **BENALLA** SQUIRES SPORTS STORE (057) 62 2519 **BENDIGO** ROSS HARDINGS BICYCLE CENTRE (054) 43 2224, MORONI SPORTS & CYCLES (054) 43 3069 **BENTLEIGH EAST** CENTURION BICYCLE CENTRE 579 4115 **BORONIA** BORONIA CYCLES & FISHING 762 1528 **BOX HILL** ACTION CYCLES 890 1977 **CAULFIELD SOUTH** GRAND PRIX CYCLES 523 5590 **CHELTENHAM N. & M.** DUGGAN 583 2854 **CLIFTON HILL** MELBOURNE BICYCLE CENTRE 489 5569 **COBRAM** ARTAVILLA EMPORIUM (058) 72 1726 **COBURG** SPURWAY CYCLES 386 2930 **CROYDON** SOUTH GOLDCROSS CYCLES 723 2427 **DANDENONG** BICYCLE SUPERSTORE 794 6588 **DONCASTER EAST** TOP GEAR CYCLES 848 9295 **ECUCA** IVOR LAWTON CYCLES (054) 82 3597 **EPPIING** THE BICYCLE DEPOT 401 3938 **FERNTREE GULLY** FERNTREE GULLY CYCLES 758 7514 **FOREST HILL** RAYS BICYCLE CENTRE 877 2311 **FOOTSCRAY** RAYS BICYCLE CENTRE 68 1385 **FRANKSTON** PEDAL POWER 783 4787 **GEELONG NORTH** BIKE POWER (052) 77 0870 **GLEN WAVERLEY** GLEN WAVERLEY CYCLES 560 2178 **GREENSBOROUGH** DIAMOND VALLEY CYCLES 435 1158 **HASTINGS** PEDAL POWER (059) 79 1776 **HAWTHORN** LAWRENCE CYCLES 818 2850 **HAWTHORN EAST** JUNCTION CYCLES 882 4985 **HIGHETT** TERRY HAMMOND BICYCLES 555 8263 **KERANG** BLACKMORE & WOOD (054) 52 1316 **KNOX CITY** THE CYCLE CENTRE **LAVERTON** WESTGATE SPORTS 369 1298 **MAFFRA** ALEXANDER CYCLES & SPORTS (051) 47 2442 **MALVERN EAST** ACTION CYCLES 572 1036 **MELBOURNE** BIKE POWER 663 6428 **MIDDLE BRIGHTON** BRIGHTON CYCLES 592 5454 **MILDURA** SUE & PETER HODGSON CYCLES (050) 23 6041 **MOE** VALLEY TOY HOUSE (051) 27 2797 **MOUNT WAVERLEY** WILF'S CYCLERY 543 3293 **MYRTLEFORD** SAM'S SPORTING CENTRE (057) 52 1023 **PRAHRAN** MELBOURNE BICYCLE CENTRE 529 3752 **PRESTON** RAYS BICYCLE CENTRE 478 2064 **RINGWOOD** THE BICYCLE WORKSHOP 879 2883 **SALE** SALE CYCLE CENTRE (051) 44 1477 **SEYMOUR** SEYMOUR SPORTS (057) 92 3699 **SHEPPARTON** MIKRON SPORTS (058) 21 2934 **SUNBURY** SUNBURY CAR SHOP 744 2598 **SWAN HILL** LES O'HALLORAN SPORTS (050) 32 3042 **TOOTGAROOK** FREEWHEELING CYCLES (059) 85 3232 **TRARALGON** KENNEDY'S HARDWARE (051) 74 2233, SPIKES BIKES (051) 74 1997 **WANGARATTA** WOODS CYCLE CENTRE (057) 21 5299 **WARRAGUL** ACTIVE OUTDOOR SPORTS (051) 23 1944 **WARRNAMBOOL** DEGRANDI'S SPORTSGOODS (055) 62 2325 **WERRIBEE** SPORTSGALORE 741 6841 **WODONGA** J.A. MATTHEWS (060) 24 1257 **YARRAWONGA** YARRAWONGA SPORTS (057) 44 1951

QUEENSLAND:

ALSTONVILLE CYCLES 285 345 **ANERLEY** BURTS CYCLE SERVICE 391 2474 **AYR** CUTTER SPORTS DEPOT 832 2239 **BEENLEIGH** BEENLEIGH CYCLES 287 3588 **BLACKWATER** THREE JAYS SPORTS 82 5054 **BOOVAL** BOOVAL TOYWORLD 82 4066 **BRISBANE** LIFE CYCLE 262 6888 **BUNDABERG** SWIFTS CYCLES 71 4111 **BURANDA** QUALITY CYCLES 393 1342 **BURLEIGH HEADS** BURLEIGH BICYCLE WORLD 35 6518 **CAIRNS** TRINITY CYCLES 51 6380, MANUNDA CYCLES 53 4894 **CALOUNDRA** SUNSHINE COAST CYCLES 91 6141 **CHERMISIDE** BERRETTO BICYCLES 359 4923 **CLONTARF** LEADER CYCLES 284 1333 **ENOGGERA** A CYCLE INN 355 4536 **GLADSTONE** SNEEDS CYCLES 57 7926 **GORDONVALE** PYRAMID CYCLES 56 1070 **GYMPIE** OLYMPIA CYCLES 82 1895 **INDOOOROOPIPLY** THE BICYCLE SPECIALISTS 378 4887 **INGHAM** WONDERLAND TOYS 76 1888 **INNISFAIR** INNISFAIR CYCLE & SPORTS 61 1416 **IPSWICH** JOHNSON CYCLES 202 4208 **KAWANA** WATERS KAWANA CYCLES 44 3433 **LUTWYCHE** TOM WALLACE CYCLES 857 1685 **MAGREGOR** KESSELS ROAD CYCLES (07) 849 5333 **MACKAY** MACKAY TOYWORLD 57 5178 **MAREEBA** EDDLESTON MOTORS 92 1517 **MAROOCHYDORE** MULGA BILLS CYCLES 43 3184 **MARYBOROUGH** TARRANTS PTY. LTD. 22 2999 **MIAMI** MIKES BIKES 358 7999 **MOUNT ISA** CURLY DANN SPORTS 43 3691 **MURWILLUMBAH** MURWILLUMBAH CYCLE WORKS 72 1368 **NAMBOUR** NAMBOUR FUNTASTIC 41 1669, TURNBULLS SPORTS 41 2013 **OXLEY** OXLEY CYCLES 379 8862 **PALM BEACH** PALM BEACH CYCLES 343 172 **REDCLIFFE** REDCLIFFE CYCLES 203 4851 **ROCKHAMPTON** ALLENSTOWN CYCLES 27 1249, THOMMO'S BIKES 28 5342, WHITE'S TOYLAND 27 5033 **SOUTHPORT** CYCLE & SURF INN 32 2874, BURLEIGH BICYCLES 32 9811 **STRATHPINE** STRATHPINE CYCLES 205 2447 **TOOWOOMBA** BRIAN PAGE CYCLES 38 2242, KEV OLSEN CYCLES 32 2942 **TOWNSVILLE** SAM BRATTON CYCLES (077) 73 4814, CYCLE CITY 71 5800, TOYWORLD TOWNSVILLE 790 277 **UNDERWOOD** THE BIG BIKE SHOP 341 7444 **WOODRIDGE** THE BICYCLE SPECIALISTS 209 5488 **WYNUMM** BAYSIDE CYCLES 393 5107, GLENN'S CYCLES 396 1594

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ALBANY YOUR BIKE & MOPED DEALER 41 6844 **ARMADALE** ARMADALE CYCLE WORLD 399 3370 **BALCATTA** BALCATTA BIKES 344 1656 **BELMONT** BELVIDERE CYCLES 277 3677, THE BICYCLE ENTREPRENEUR 277 9181 **BUNBURY** FITZROY'S BUNBURY 21 8600 **BUSSELTON** BUSSELTON AUTO PARTS 52 2887 **CANNINGTON** OLIVERS CYCLELAND 458 7716, SWAN CYCLE MART 458 8302 **CLAREMONT** AVOCET CYCLES 384 8365 **COMO** BICYCLE WORLD 445 3443 **EAST FREMANTLE** OLIVERS CYCLELAND 339 1415, THE CYCLEMAN 339 1520 **FREMANTLE** MERCER CYCLES 335 9536 **GERALDTON** ELMAC CYCLES 31 3279 **GOSNELL** JET CYCLES 398 2359 **INGLEWOOD** STIRLING CYCLES 271 5394 **INNALOO** MORRIS BIKES AND SPORTS 446 4446 **KALAMUNDA** KALAMUNDA CYCLES 293 2115 **KALGOORLIE** HANNAN STREET CYCLES 21 2467, JOHNSTON CYCLES 21 1157 **MANDURAH** CYCLES MANDURAH 356 490, PUSH 'N' PEDAL 35 5662 **MAYLANDS** SPEEDLITE CYCLES 271 1493 **MIRRAMOOKA** CRYSTAL CYCLES 349 4777 **MORLEY** WARD CYCLES 276 5181 **MUNDARING** CYCLE CARE 295 2042 **MYAREE** NORTH LAKE BIKE & SPORTS 330 6628 **NEWMAN** RONS BIKE SHOP 75 2008 **NOLLAMARA** GEORGES BIKES 344 2393 **NORTHAM** NORTHAM CYCLES 622 2005 **NORTH PERTH** NORTH PERTH CYCLEMART 444 3483, PAL CYCLES 328 7253 **PADBURY** PADBURY BIKE SHOP 401 6877 **PARABURDOO** ASHBURTON INDUSTRIES 89 5226 **PORT HEDLAND** HEDLAND CYCLES 73 1304 **ROCKINGHAM** ANDY'S BIKE & SPORTS CENTRE 27 4060, ROCKINGHAM CYCLES 27 4457 **SAFETY BAY** SAFETY BAY BIKE & BOAT SHOP 27 4846 **VICTORIA PARK** THE PARK CYCLE SHOP 361 4172 **WANGARA** JOHNS BIKE SHOP 409 8224 **WEMBLEY** CAMBRIDGE CYCLES 387 3708 **WILLETTON** BURRENDAH BIKES 332 3698, WILLETTON CYCLE CITY 57 7614

SOUTH AUSTRALIA:

ADELAIDE SUPER ELLIOTS 223 3946, STANDISH CYCLES 212 3363 **BRIGHTON** KELLERS CYCLES 296 8861 **BROADVIEW** BROADVIEW CYCLES 261 2222 **CLEARVIEW** CYCLELAND 262 4288 **COLONNADES** STANDISH CYCLES 384 4704 **DERNANCOURT** DERNANCOURT CYCLES 336 7806 **GLENELG** HOLDFAST CYCLES 294 4537 **INGLEFARM** TRAK CYCLES 265 0357 **KILBURN** J.T. CYCLES 260 6678 **KILKENNY** J.T. CYCLES 268 6404 **KLEMZIG** STANDISH CYCLES 261 1696 **MOUNT BARKER** ALDGATE CYCLES **MOUNT GAMBIER** BRUCE DOWDELLS CYCLES 25 2953 **MILE END** STANDISH CYCLES 43 5435 **OAKLANDS PARK** STANDISH CYCLES 296 2376 **POORAKA** DISCOUNT CYCLES 260 4365 **PORT PIKE** WELLINGTON CYCLES 32 1219 **PROSPECT** ADELAIDE CYCLERY 344 6353 **ST. AGNES** ST. AGNES CYCLES 264 7888 **SALISBURY** J.T. CYCLES 250 7100, J.T. CYCLES 258 4074 **STIRLING** ALDGATE CYCLES 339 5954 **TEA TREE PLAZA** TRAK CYCLES 264 6001 **TOORAK GARDENS** BURNSIDE CYCLES 31 0313 **TORRENSVILLE** J.T. CYCLES 43 9914 **UNLEY** STANDISH CYCLES 271 9733 **WAARDALE** BERNIE JONES CYCLES 296 9652 **WESTLAKES** STANDISH CYCLES 356 5492 **WOODVILLE** J.T. CYCLES 268 2019 **WHYALLA** U PEDAL CYCLES 45 8476

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OUR FIRST GOLDEN AMATEUR

The story of Dunc Gray: Australian cycling's original Olympic gold medallist

BY JOHN DRUMMOND

SEOUL, A SPRAWLING city of 10 million people, has completed the building of the Olympic facilities and thousands of South Koreans are learning other languages so they can converse with foreign visitors and host the greatest sporting spectacle in the world – the 24th Olympic Games.

Simultaneously the athletes who will carry Australia's medal hopes at the Olympiad are honing their skills, both home and abroad.

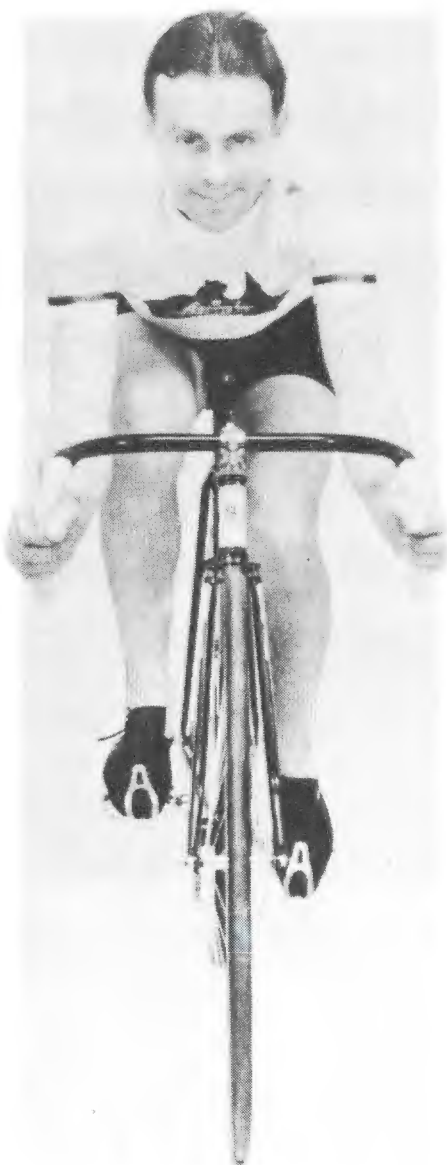
A cyclist in the mould of Martin Vincombe represents Australia's best chance of winning Gold in any sport. Just as Edgar Lawrence 'Dunc' Gray did when he won our first cycling Gold Medal in Los Angeles back in 1932, coincidentally in the same discipline – the 1000 metre time track trial.

It was at the Goulburn Sports ground back in the 1930's that I saw my first bicycle race. The names of some of the many champions still come to mind for they shared Australia's "Golden Era" of sport, Jack Standen, Don McGregor, Horrie Pethybridge, Ellis and Dunc Gray. Dunc was my hero for he defeated Sydney star Horrie Pethybridge in a match and won the 5 mile scratch race with a withering sprint.

I always remember his lightweight machine with its two sets of wheels, steel rims for training and specially cared for cane wheels for racing. I became a fan of cycling that summer so many years ago when times were lean and bicycles were an essential and an accepted means of transport.

Then and now, there was not only fitness and strength called for by the track cyclist, but also cunning, anticipation, bravery and skill. Yes, especially skill.

Was any amateur track cyclist ever greater than Gray? There is no true way



Duncan Gray photographed on his return from the 1936 Berlin Olympics

of comparing greatness over long periods of sport for too many imponderables arise to cloud the issue. The only measure is the degree of fame achieved in an era. Thus to fairly answer that question we have to endeavour to get behind the man and examine his record.

EVERYONE CALLED him Dunc but that wasn't his real name. He was born in the year 1907 and lived in a small township called Kingsdale, some 10 odd kilometres out on the outskirts of the progressive town of Goulburn, New South Wales. The second son of Mr Mark Gray, a member of a large and well respected family in the district. He was christened Edgar Lawrence Duncan Gray.

It would appear this likeable lad was destined for sporting stardom, for almost all the Gray family shone in some section of the town's sporting structure. Brother Ellis, was also a top class racing cyclist. Cousin Max was a country tennis champion and a State representative while two others, Una and Ian were State reps at hockey.

After completing his education the youngster was apprenticed as a carpenter and cabinet maker, and acquired the rudiments of cycling by riding a bicycle the 11 odd kilometres to and from school and work.

Australia entered it's second great era in sport with the onset of the great world wide economic depression of the 1930's. Cycling shared in the boom with the Goulburn Amateur Bicycle Club forging a strong link in a chain of New South Wales clubs based on Sydney, where some very good cyclists were starring on road and track.

Gray who had reached the top of the tree in Goulburn knew he had to enter the Sydney competition if he was to realise his ambition of being an Australian champion. Purchasing a motor-cycle outfit he travelled regularly to Sydney in search of stronger competition, a return distance in excess of 250 kilometres.

In 1928 he was selected to represent NSW in the national titles at the Sydney Sports Ground and won his first national One Mile championship.

That was the beginning of the green years for Gray, during which he won all manner of Australian championships against the fiercest competition.

As a result of his performance at the 1928 national titles Gray was selected, along with another NSW star, Len Standen, to represent Australia at the Amsterdam Olympic Games where he won Australian cycling's first ever Olym-

pic medal by coming third in the 1000m Time Trial.

Four years later (1932) Australia was "on the ropes" in the middle of the Depression and Dunc Gray as a lone member of a small team gave the country an enormous psychological boost when he won the first Gold Medal in the Los Angeles Olympics in world record time against all odds.

Ten days before the cycling events, held at Pasadena, Gray was stricken with influenza. With a temperature of 40 degrees (104 F) he was ordered to hospital, but on the advice of team trainer Ted Gill he settled for the Olympic Village instead. Gill had him, back on his bike within two days training to a special schedule.

The track was wooden with 5 x 2.5 cm (2 x 1 ") decking, which was finished with 2 cm (3/4") boards nailed into each other, expertly banked on the bends so as to adequately carry speed and allow smooth entry to the straights.

Gray was beaten in a semi-final of the Sprint, by Chaillot of France, or rather did not get the judges verdict although every cycling manager present was of the opinion he had won. He considered lodging a protest but the team manager, Jim Eve, would not agree and suggested he should save himself for the Time Trial. He therefore withdrew, which later was to prove correct and good tactics.

In winning the Time Trial over one kilometre Gray used his favoured cane rimmed wheels shod with American Pye Tyres, and rode a 90 inch gear in the then popular inch pitch.

The Los Angeles Games of 1932 were significant because of the controversy as to whether they should be held at all with world economy in a parlous state and most nations seemingly headed towards disaster. However, they were extraordinarily successful and peaceful. They were conducted completely free of politics with cowboys guarding the Olympic village in contrast to Berlin four years later where the German army was in evidence everywhere.

I well remember the occasion. It was the early days of radio and contact with the world overseas was mainly made by cable. I had been attending a local dance, which being a Saturday night was compelled by law to close at midnight. On my way home I came across a large crowd of people outside the office of the *Goulburn Penny Post* waiting for the Olympic cycling result. They had been joined by the local dance band who were playing Dixie.

About 1:00 am it happened. A newspaper man emerged from the office and

pinned a cable announcing Gray's victory on a notice board. I can still hear the pandemonium that broke out in an unrestrained exhibition of joy and hero worship.

Now at the peak of his form Dunc Gray won a string of national track championships over the next 9 years. In a 12 year career the Goulburn cyclist won numerous club and state titles, and a total of 19 national championships of all variety.

Gray was Australia's most successful amateur cycling representative. Never riding professionally, he attended three Olympic Games winning two medals (1 gold – one bronze) and two Commonwealth Games, winning gold both times. He was on line for selection for the 1940 Olympic Games when they were abandoned because of the Second World War.

He was chosen to carry the Australian flag at the 1934 Commonwealth Games in London and the 1936 Berlin Olympic Games, and in 1938 led the march past and took the amateur oath at the Sydney Commonwealth Games.

He toured New Zealand several times and set several records. At Pratten Park in the Sydney suburb of Lidcombe on the 13th January, 1937, he lowered the World record of 28 and two fifths of a second for a quarter mile standing start.

I witnessed an incident that highlighted the values of hero worship to young sports adherents. It happened at the wind up carnival of the year shortly after Dunc Gray's return from Los Angeles as Olympic champion.

It was the rule for the Goulburn Amateur Cycling Club to conduct a consistency competition throughout the track season for a handsome cup as an incentive to junior members to strive for success. It happened to be the final contest of the season and a decider between the scratch marker and his nearest rival off 30 yards (27 m). A win for either would be conclusive.

The challenger looking quite nervous and contemplative sat motionless in the dressing room. Just then Dunc Gray entered with his trainer. Noticing the boys demeanour the Olympic champion approached and offered some encouragement. Just a few words, but enough to change the lad's whole mood. He was suddenly alive and bubbling with energy.

Needless to say the scratchman never saw the youngsters back wheel, and there are no prizes for guessing who that youngster was.*

Two qualities made Dunc Gray, the man, stand out from his contemporaries.

A discipline of mind and body that was total when in training and a strict

allegiance to the moral standard of the times. He was an occasional attendant with his family at church, and was regarded throughout the sporting world as one of its cleanest and fairest living adherents.

He was modest and gallant in defeat, scrupulously fair, both on and off the track. He was regarded by his townsfolk as a demigod. The local newspaper wrote editorials eulogizing his sporting and social standards, and the clergy held

him up from their pulpits as an example to the youth of the times. In short Dunc was the toast of Goulburn town.

It could be argued that Edgar Lawrence Duncan Gray was the greatest example of amateurism that this country has ever known. At a time when a cyclist could have capitalised on his ability more so than any other time in Australia, the Goulburn Olympic champion chose to remain an amateur. Professional track cycling was booming in New South Wales with meetings being held twice weekly on the fast modern wooden velodrome in the Sydney suburb of Canterbury. When Gray returned from Los Angeles as Olympic Champion he was offered lucrative contracts to join the circus. He refused them all.

* The youngster inspired to win by the words of Dunc Gray was none other than the writer.

Dunc Gray looking hale and hearty at 81 years is now living on the NSW Central Coast.



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WHEN ONE LAP IS ENOUGH

A nineteen year old sets out on the journey of a lifetime: around the continent by bicycle.

by Alan Dunn

My adventure really began when I was studying in Sydney late in 1986. I wrote to a friend in Perth and joked that I might ride over to see him. My bicycle was my only form of transport then. The idea stayed with me and I thought about it increasingly throughout October and November as my interest in University declined.

I had only ever used a bike as a means of transportation. I couldn't afford a car.

However, I had never been interested in bicycle racing and in growing up in Canberra I was lucky if I ever rode more than 100 km in any one week.

In moving to Sydney in 1986, the distances had grown and I soon became accustomed to making all my own repairs. In July, I bought my first 10-speed bike, a second hand Bennett Sport. They were then selling for around \$220 new and mine was almost new at \$140.

With that bike I became used to riding

about 200 km a week to and from Uni. Soon, I decided to buy a new rack, a steel Karrimor one, and Karrimor panniers (Karibou series). Gradually, I increased my distances and in early November I attempted to ride from Sydney to Canberra, 290 odd kilometres, in a day. My parents, who lived in Canberra, discovered this and were frantic. Mum sent Dad racing down the highway to collect "one of her boys". They caught me just entering Goulburn at about 5 pm, and being pretty tired I stopped and accepted the lift.

I attempted the same trip a few weeks later and got as far as Berrima, in a strong headwind, before giving in. I had asked the guy in my local bike shop whether the bike would make it to Canberra and he had said: "Yes, but whether you will is another thing". So far he proved to be right.

After passing nearly half my courses at Uni, I needed a year off to travel. I had seen travelled the east coast between Brisbane and Melbourne and had been to Tasmania twice but had never been further west than Griffith. I decided that a trip right around Australia was to be my goal and my \$140 Bennett would provide the transport.

My last few weeks in Sydney were spent building my weekly traveling distances up to 300-350 km and collecting spare parts and other equipment: namely a synthetic sleeping bag (relatively unaffected by rain), a backpack

for overnight bushwalking, a metho cook stove, a tent, a front rack (a matching steel Karrimor), and some new panniers which I could put on the front.

The spare parts were all things I had broken before: a pair of pedals, 2 spare tyres, a puncture kit, a bottom bracket axle, a rear axle, an alloy crank, a pair of cables, and a chain de-riveter, plus 2 spare tubes. All of these were the cheapest I could buy as the trip had a tight budget.

Finally I was ready. On January 15 1987 I set out with 45 kg of baggage and \$900 in savings. I was heading south to Cooma because of a vague feeling that south was going downhill, but more importantly I wanted to ride over the Snowy Mountains. I figured if I could climb the highest mountains in Australia initially, then the following hills would be a piece of cake.

I travelled for 10 hours that day and completed 120 km to Cooma by nightfall. I had to stop every one and a half to two hours for food and rest because the extra weight on the hills made the pedalling a little harder than I had envisioned. That night I collapsed in my tent in a caravan park and the next morning I felt the worst of my entire life. My muscles were stiff, my face was puffed up, you name it, I was crook!

But to go home was too big a pill to swallow, so I headed on towards Jindabyne. That day Cooma was in a heat wave – nearly 40 degrees in the shade – and an enormous gale was blowing down from the mountains. I was so exhausted and the wind was so strong at times that I got off and walked on some very easy hills. The day passed slowly, and after 3 punctures around Berridale I eventually climbed up to Jindabyne and arrived at nightfall after another 8-9 hours travel.

The next day I met my first ever touring cyclists: a Canadian couple who had travelled up from Melbourne on proper touring bikes and had ridden about 3000 km in 3 months; and a Japanese guy on a mountain bike who couldn't speak a word of English. I gathered he had ridden 17,000 km in 12 months in Australia and NZ, had crossed the Nullarbor Plain 3 times in the process, and the following night he was going to camp on the top of Mount Kosciuszko (I found out 2 days later that some people I met did see him carrying his bike and his bags to the summit through the ever present snow and bone chilling winds).

It was a comforting thought to know that some people were capable of big trips.

That day I rode 30-40 km uphill to Thredbo. After a days trekking up and around Kosciuszko I continued on through Dead Horse Gap and down the rugged Alpine Way: a treacherous road for bikes. I spent a good deal of time

walking down the valley because my brakes couldn't stop me on the dirt road.

The next day on the other side of Scammel Spur I saw a few more cyclists – one of them was a guy called Greg who had ridden from West Australia on a good touring bike (6600 km in 3 months). I would later meet him again around the other end of Australia.

I passed through Khancoban and Corryong and camped early to cook my only batch of damper. Originally, I had planned to be a bit of a bushman – cook damper and hunt rabbits and other animals – but I soon found out that it was more practical to buy bread and all my other food in shops.

In the days to come I rode through Tallangatta and the Keira Valley to Mt Beauty, over Falls Creek and down a rugged 4WD only road to Omeo and on to lovely Lakes Entrance. I rode through wind and rain to Sale and Waragul and after 2 weeks travel and my first 1000 km I reached Melbourne and stayed in my first YHA hostel out in the Dandenongs. After a day or two I rode right around Port Phillip Bay and then down along the Great Ocean Road to Port Campbell passing some of the most awe inspiring and rugged coastline in the country.

From there I headed up through Camperdown to Ballarat through Great Western to Halls Gap and the impressive Grampian Mountains and then on to Hamilton and Casterton to Mt Gambier.

It was in Murray Bridge that I found out my mother's younger sister died from cancer and I had missed the funeral. Another thing happened to me in Murray Bridge. It was already a common occurrence on the trip and was becoming mildly annoying. I was just about to leave town when some strangers, on seeing my bike, called out, "Hey mate, where do you think you're going?"

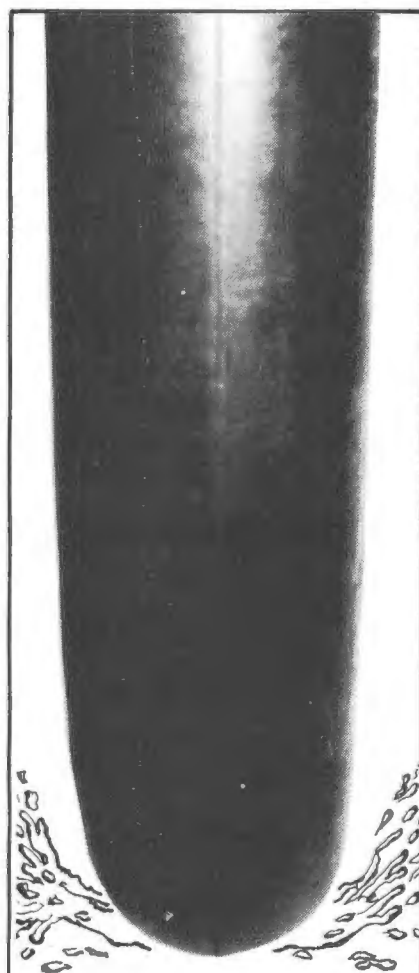
Fearing that they might have a coronary if given the whole truth, I said, "Oh, I'm riding to Adelaide."

They gasped and shouted: "What, all the way to Adelaide?"

I said, "Yep!", beaming with pride.

They just rolled their eyes and shook their heads and said, "Ah, you're bloody crazy! Absolutely, bloody crazy!" I just laughed and rode off but that episode really emphasized just how lazy and close minded some people can be.

Back on the road again, I pushed on to Adelaide. I arrived with 7 broken spokes in the back wheel and the feeling of jelly underneath me. I had travelled for a month and ridden some 2500 km and felt good. But in Adelaide I discovered that leaving home a well built 71 kg my body now weighed only 63 kg with less muscle on the upper half.



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Engineering for Cyclists

Before attempting the Nullarbor I saw a bit of South Australia including the Barossa, the Flinders Ranges and the Yorke Peninsular. I rode to Port Lincoln, to replace a crank and along the edge of the central wheat belt to Ceduna. Here I met a Japanese fellow who was taking the shortest route between Sydney and Perth and riding in thongs – rugged, eh? He left a day before me but I caught him up three days later at the WA/SA border.

As it turned out we had both picked a good time to cross the Nullarbor. Although it was the first week in March, it was the coldest summer in the region for 15 years, so the temperature was pretty

constant at 35 degrees and although I only carried 4 litres of water, I never drank more than 2 litres before could fill up again – even though on occasions water was sold to me at up to 60 cents a litre (I used to think that was against the law). Fortunately the winds were predominantly helpful south-easterlies.

The cliffs of the Great Australian Bight were impressive but in some ways the Nullarbor itself was a let down. It was neither as dry nor as desert-like as I had been led to believe; my mind used to conjure up visions of sand dunes. The biggest gap between road houses is now only 190 km, instead of the 300-400 km of past times.

I rode with Takemoto for half a day

down to the Eucla Telegraph Station ruins and although he was good company, I was running out of food. My money was also getting low, for due to an improper appreciation of distance and a want for extra challenge, I had left Ceduna with only \$25 cash. So, I scooted ahead and rode the last 630 km to Norseman in 3 days on little but bread and soup. That week I travelled over 1200 km and it remained as my fastest for the whole trip.

The weather warmed up here also; in fact my radio melted in Norseman.

By Albany I had ridden about 7,000 km in almost 10 weeks and I was nearly broke, so I immediately rode off to pick grapes 120 km away up in a vineyard near Rocky Gully. I worked there for two and a half weeks. Although I didn't earn much at this job I did become friends with two English travellers: John and Alan. John, 35, had ridden 28,000 km in 2 years through Africa. Alan had hitched along the same route.

After the job finished John and I rode west through Manjimup and Pemberton, beautiful tall Karri country and so green. In Pemberton my front rack broke its top link and everything fell forward including me over the handlebars. Luckily, I didn't hurt myself or deform my bike. So we picked up the pieces, put everything from my front panniers into my empty backpack and struggled to the nearest youth hostel.

It was like a fairy tale: we found an electric arc welding unit there and John, who had been a welder for 15 years, put it back together as best he could. He also repaired the two broken supports on my rear rack which had been held together with wire since Adelaide.

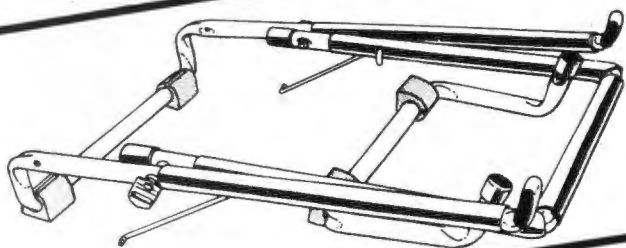
From then on I made an effort to offload weight where possible, not because speed was a problem as I travelled about as fast as John who carried only 20 kg in baggage, but I've found 45 kg (100 lbs) of baggage will break any rack in a short time.

Before I rode to Perth to see the friend I had written to 9 months earlier I parted company with John and Alan. Alan had just bought an \$800 touring bike and was beginning his world trip by riding with John to the eastern states. Good for him! A convert!

I made major repairs in Perth replacing the bearings in the bottom bracket and a pedal. Both of these had broken on the Nullarbor. New front and rear racks were also fitted (alloy this time) along with a new chain and freewheel (a Japanese 13-24) replaced my worn out Singaporean 14-28 cluster. I also replaced my chain-wheel and added 4 other water bottles to the frame to keep the present one company.

So in the first week of June, carrying a weight 6-7 kgs less and with nearly 9,000

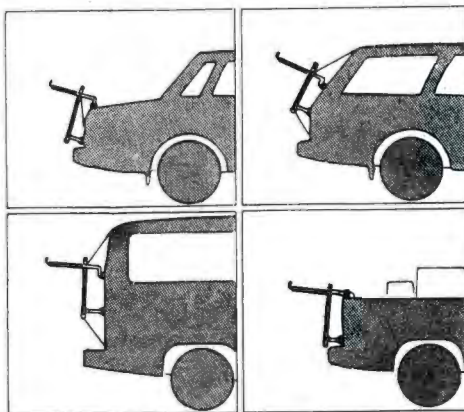
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km up my sleeve, I headed north through the winter rains and headwinds. I took the shortest route to Geraldton and arrived after 4 days with a broken front hub and a chewed up quick release axle. I celebrated my 20th birthday there with a few days solid reading, rebuilt my front wheel and left for Carnarvon.

A few days later I emerged from the desert to pick bananas for 2 days while the police caught that guy in the north-west who was running around shooting people. Then, once more, I rode north!

Between Carnarvon and Karratha I spent a day being sick. It was the only time I was sick on the whole trip and was probably a combination of drinking bad water and exhaustion, for I had ridden 230 km the previous day into a slight headwind. I was very weak and light-headed and could only ride 1 1/2 – 2 hours without stopping instead of the normal 5-6 hours. I was dehydrated and also had diarrhoea, although I had drunk 4-5 litres inside 70 km.

After a couple of days rest I rode up to Port Hedland and was immediately impressed by the enormous quantities of iron ore being handled. I was also shocked by the news that my grandmother had died, and again they had already had the funeral. The morbid question of whether I should fly home in time to catch the next funeral crossed my mind.

From there I pushed against the headwind to Broome and here, in the first dry gap of 300 km, was the only time in which I rode for more than a couple of hours at night. That stretch took me 1 1/2 days carrying 9 litres of water. In Broome I relaxed with Peter, a mate from Melbourne, who I saw six times in WA even though he was travelling by bus.

I headed up to Derby, and then out on some rugged roads into the Kimberleys to see a few gorges, including Tunnel Creek. But after a couple of punctures on rocks and the tedious pushing over sand in 40 degree heat I hitched a lift for a few hundred kilometres to Halls Creek. There I set out again and after being charged by a bull, rode up to see crocodiles in Wyndham and the fantastic view from the Five Rivers Lookout which overlooks Cambridge Gulf.

In Kununurra I stopped for 3 weeks to work on a farm picking fruit and vegetables. It was here that I ran into Greg, the WA rider I had seen near the Snowy mountains. He had now ridden 20,000 km in 10 months, but had not stopped for work. It's a small world sometimes!

I arrived in Darwin with 9 spokes broken in the rear wheel. It would have collapsed I'm sure had I hit another bump. I respoled it but it was too far gone. When I left town a week later I snapped 10 spokes in the first day. Yet again I fixed them and pressed on.

In Kakadu more troubles: I was pedalling back from a sightseeing ride on the rugged dirt road towards Jabiru when I hit a big bump. To add to my back wheel problems my rear derailleur got caught in the spokes and became very mangled. Needing tools, I hitched a lift with some people who, as it turned out, were working nearby in the camp for the film *Crocodile Dundee II*. When they told me they needed labourers on and off the film set I jumped at the opportunity and in the following 3 weeks I did various jobs touching on many aspects of behind-the-scenes preparation.

As September arrived and the wet season was drawing nearer I still wanted to finish my trip via Ayers Rock and the Gulf Country of Queensland. I decided to leave despite an extra 3 weeks of rich living available to me and after straightening my derailleur and wheel as best I could, I rode parallel to the escarpment down to Cooina and Yellow Waters. Along the road I saw more salt-water crocodiles, birds, brumbies and water buffalo.

One night I was woken by a water buffalo sniffing at my face, but despite those big horns, I rolled over and went back to sleep and it ran away. The next day halfway to Pine Creek I bent 2 rear axles and burst a tyre before hitching a lift to Katherine. There I rebuilt my rear wheel, with new hubs and axle, and bent my rear dropouts (which had opened) back into place to stop the axles from bending. To complete the repair I bought a new derailleur.

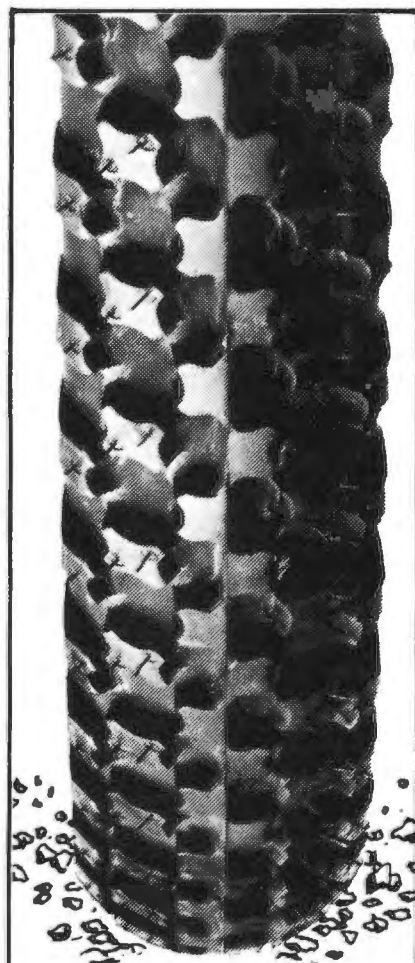
When I thought I had everything right I rode down to Tennant Creek. But, alas, I arrived 5 1/2 days later after breaking some 30 spokes in the rear wheel. The town doesn't have a bicycle shop so I didn't know whether I needed a new bike or just a new wheel and/or how special it had to be.

After riding over 15,000 km (my original estimate for the whole trip), with temperatures moving closer to 40 degrees on the road every day, I was losing interest rapidly and decided once and for all to go to Adelaide for the Grand Prix in November – even if it meant rushing the trip.

So I respoled my wheel again and trundled off south for Alice Springs, but 40 km out from Tennant Creek, facing into a strong southerly, I had a sudden urge to stick my thumb out at a passing truck. And it shocked me by stopping. Trucks just don't stop for hitchhikers in a desert; but this one did so I arrived in Alice that night.

The next day I went to a bike shop and the owner was horrified with my bike and said he wouldn't trade it in for \$20. He tried to sell me a \$600 bike but I just laughed at this and bought a rear wheel for \$40.

In the youth hostel there I met up with a couple, Jenny and Andrew from



THE STRONG SILENT TYPE

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Engineering for Cyclists

Perth, who had spent the last 18 months riding through Europe and America. Andrew was waiting for his knees to heal. However, I convinced them to leave with me the next day and ride towards Ayers Rock, for the wind had changed to a strong northerly and it had been over 3 months since I had ridden with a tailwind.

So away we went and 1 1/2 days later we were at the turnoff to Ayers Rock. While we were resting the band Red Gum came through to do a concert out at Yulara resort and offered us all a lift. So even though I was feeling very guilty about hitching so often, we agreed because Andrew had sore knees. A few hours later we arrived at Ayers Rock

and watched the Red Gum concert that night.

In the next couple of days we rode out to Ayers Rock a couple of times, climbed it and rode around it, but didn't carry our bikes up like some Japanese (there is now a \$1000 fine to deter crazy cyclists).

During our time at the Rock I borrowed Andrew's mountain bike to ride the terrible road to the Olgas. I was really thrilled for I had never ridden a mountain bike before. It was great: on the dirt there is no competition between mountain bikes and any other — they are that comfortable! On tarred roads there is little difference in touring speeds. The only deficiency I could find is perhaps

on long stretches of road one's hands become stiff from being in the same position too long. With drop handlebars one can safely move the hands about more. Being permanently seated in such an upright position, although good for the posture, may also make cycling somewhat harder in headwinds.

About 1 in 3 of the people I met toured on mountain bikes and the rest had good touring bikes — not street bikes like mine.

I parted with Andrew and Jenny, and caught a bus back to Alice. It was the 3rd of October and I had calculated that if I was in Cairns by the 15th, then I would have a month to cycle the 3,500 km back to Canberra. So, I caught a bus to Three Ways and over the Barkly Tablelands to Mt Isa.

I was carrying about 35 kg in baggage now and rode to Cloncurry without breaking a spoke. Hurray! The next day I headed north to Normanton and rode about 30 km into a strong northerly with 45 degree temperatures and 90% humidity before hitching a lift up to Normanton. It was far drier up there than I expected, Normanton and Karumba both. Not much to see either, and with only crude dirt road for the next 250 km east I was held up for one and a half days before I could hitch out on a road train to Ravenshoe.

The Atherton Tablelands was a shock to the system; it was so cool and green up there. Ravenshoe is over 900 m above sea level and less than 100 km from the coast. I spent a day visiting waterfalls and swimming holes on the way to Malanda and Atherton, then rode up to Mossman, Daintree and the rain forests of Cape Tribulation.

In Cairns I met a couple people from overseas who had begun bicycle touring around Cairns but gave up because of the heat and humidity. Ho hum; temperatures in Cairns at that time were only in the 30's.

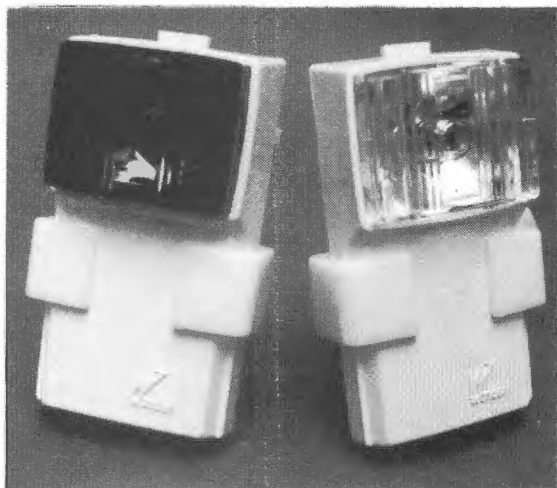
Heading south again with the northeasterly winds towards Townsville I hit my first rain for nearly 4 months. It looked so odd with the steam rising off the road. A few days later I arrived in Townsville.

On my way down to Mackay I was struck, literally, by my first magpies. The second one took me off my bike, but again no damage was done, and before long I became used to their presence and handed out a few lusty blows with my trusty pump. As the roads became busier they swooped less anyway.

From Mackay I rode virtually non-stop to Brisbane, via Rockhampton and Noosa. After visiting some friends I rode via the Gold Coast and encountered a flood of rain and punctures before reaching Sydney a week later in appalling conditions. In Gosford I had

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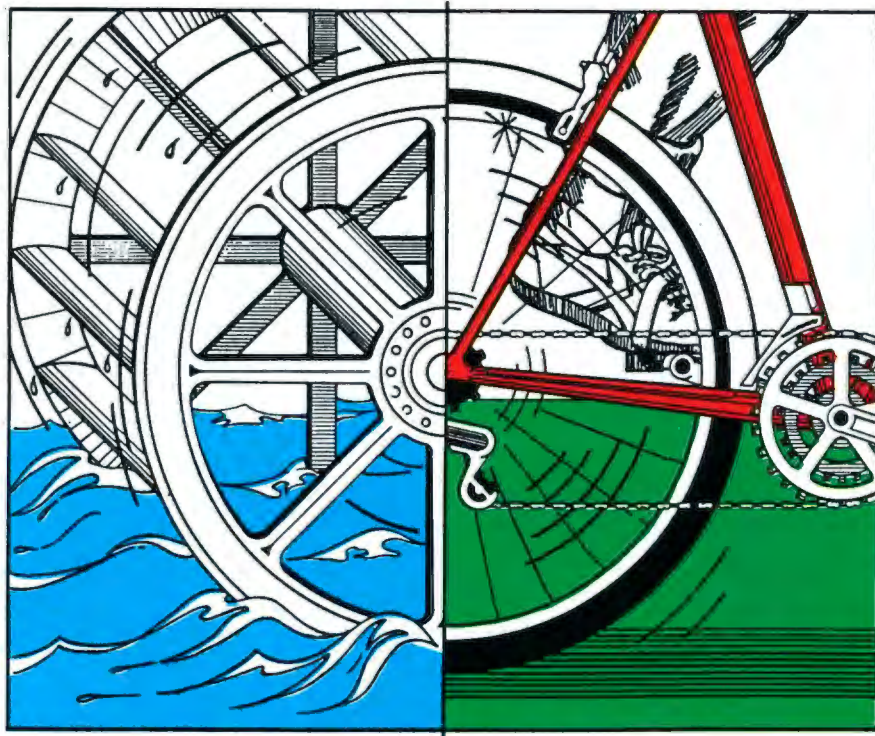
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to rent an overnight van for the first time to recover from a 12 hour, 140 km ride through the cold headwinds and traffic. This was the wettest I had ever been in my life.

After a couple of days rest and repair I was busting at the seams to try a third attempt at riding to Canberra – I'd had training for this one – and on Grand Prix day, November 15th, I arrived home, triumphantly, to watch it after exactly 10 months in the saddle.



On my journey I collected some interesting data and statistics, both about bicycle touring and Australia in general, and these may help

someone else who is contemplating a similar adventure.

First of all, I encountered some 30 days of rain in over 300 days of touring. Sure its seasonal, but bear in mind that in the northern half especially, there are certain roads that are rather difficult to pedal at certain times of the year, hence, your touring season is limited. Personally, I found the country overall far drier, flatter, hotter than I ever expected, and I encountered only mild conditions.

Secondly, I encountered about half headwinds and half tailwinds. Good planning can turn the odds in your favour, but note that if you stay too long in one place (as I did near Perth) the winds may change. Rarely does a strong

wind turn 180 in the same day, although I had it happen to me 2 or 3 times.

And thirdly, plan on about 10 months for a comfortable trip of this type. Although mine included 3 1/2 months work, other people I met who had fixed incomes or savings took this long for the same trip. I estimate 10 – 15 people ride this round trip every year, although perhaps 200 (mainly Japanese) ride between Sydney and Perth in any one year (there were 8 other cyclists on the Nullarbor alone in the week I crossed).

Diet is also important. For my part, I concentrated mainly on carrying stocks for good dinners and breakfasts. The occasional canned food but primarily light, dehydrated foods such as noodles, dried fruits and peas, powdered milk and cereals. I generally picked up something along the way for lunch such as fresh fruit, sandwiches, or take away foods – which is where most of my money went. Overall, I spent \$4,279 and travelled almost 24,000 km in 305 days, riding 19,278 km of that total.

My repair statistics are interesting to say the least: 45 punctures; 12 tyres and tubes; 123 spokes; a rear wheel; both hubs; 3 axles (2 rear); 1 freewheel; 1 chainwheel; both cranks; a bottom bracket set and 3 sets of bearings; broken supports on all racks; broken chain (4 times); 2 gear cables and 4 brake cables; a rear derailleur and one pedal.

From this you can see that parts cost me quite a bit, and so you must be at the very least a maverick bike mechanic like myself in order to cope. Obviously, like the other 62 touring cyclists I met who all had top quality machines, it is well worth your while paying the extra money initially for a strong, capable bike. It saves money in the long run and saves your legs because carrying spares is extra weight and they should not be required. Just simple investments, such as puncture-proof tyres are eventually cheaper and make the trip more enjoyable – I didn't use them because through ignorance I didn't find out of their existence until Queensland and by then they were not worth my while.

One final point I would like to emphasize is that you don't necessarily have to be young and fit to complete a trip like mine. Yes, it can be an advantage but I have met and heard of people touring on bikes at both ends of the age scale; from 7 year old children who rode 50-80 km each day with their parents around Europe, to 60 year old pensioners I met who recently rode from Perth to Adelaide in under 2 months. Sound preparation and planning may outweigh the losses of age or health.

To anyone planning such a journey I wish you good luck and a safe trip. I hope you find my story a benefit to your own success as others were to mine. Now I am planning my next trip, overseas, and a little more wisely!



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GET READY FOR THIS YEAR'S BIG BIKE RIDE

THE 1988 SYDNEY TO THE GONG BICYCLE RIDE

AS WINTER draws to a close it's time to dust off your machine and get back into condition for Sydney's big one – the Gong ride. This year the ride will be held on Sunday

November 20 starting at Belmore Park near Central at 8:30 am.

The 87 km route is still intact after the torrential down pour in April and May though, as this item goes to press, a section of road north of Clifton is still closed to traffic. Not to worry, the DMR assures us that the road will be open to cyclists by November and the magnificent coastal scenery unaltered.

If you are new to cycling then the Gong ride is an ideal opportunity to find out for yourself what a fun time can be had on two wheels. If you're an old hand then bring your friends hand have a great day out. The ride is well organised and good backup support and catering facilities are provided along the way.

Entry forms for this years event will be published in the next issue of *Freewheeling* (out early September) and through Sydney, Wollongong, Newcastle and Canberra bikeshops about the same time. This year you can enter either by post or pay for AND pick up full kit and services tickets at selected Sydney and Wollongong bikeshops.

If you do not cycle regularly you should do some training for the event. On the day you have 9 hours to complete the journey and our sag wagons will come to your rescue if your health and lack of fitness lets you down. St Johns Ambulance will staff the four major stopover points if you need assis-

tance in the event of injury.

The Sydney to the Gong ride is a great day out for all the family and friends – even the ones who don't ride bikes. This year our carnival at the Wollongong end of the ride is growing and we want you to invite your friends and family to motor down to meet you at the end of the day. Entertainment, food and drinks are all available from 11 am onwards – there's plenty of parking close by.

If you are travelling up from the Gong to start the ride we are providing truck transport to carry your bikes leaving from the station around 6:30 am. In the afternoon Sydney riders will be able to load their bikes onto the trucks at Flagstaff Point for transport back to Belmore Park. A security area will be operating back at the Park so you can stay and enjoy the carnival atmosphere at the Gong before you board your train to Sydney.

A free shuttle bus service will operate between the Flagstaff Point carnival and the station throughout the afternoon. If your friends want to train it down to the Gong to meet you tell them that the shuttle bus from the station to the Point is for their use too.

This year the Gong ride is supporting the work of the Multiple Sclerosis Society. We want you to ride for MS and that way help to find a cure for this disabling disease and relieve the suffering of those

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less fortunate who have it. Every rider will be sent an MS Gong Ride Fundraiser's Package with the basic riders kit and there are lots of prizes to be won for your efforts. Our entry form and information brochure (out September) will contain full details.

This year we want to encourage more riders to participate as teams. There will be team prizes for company (corporate) teams, cycle (European racing type) teams, crazy costume teams, school teams, best dressed professional teams and more. Every rider will be asked if they are participating in a team so now's the time to get your friends together and plan.

This year has got to be the biggest Gong ride ever. We think that with your help we can give about 4000 people a terrific day out. So how about it? Now's the time to get into training and get those friends of yours to do likewise. And don't forget your poor old bike. Check it over and if it needs repair work done on it get it down to your local bike shop now so you can get plenty of use from it before November.

Look out for the Jacaranda trees; when they loose their leaves it's only a few months to go. When the purple flowers arrive it's not long then. It's going to be a great ride. Don't miss it this year.

After each ride we usually receive a number of letters thanking us for organising the event – which is immensely gratifying as it is always a big job to make it all happen. We also receive a number of useful suggestions for improving the ride. Thank you all for your thoughts and good wishes and we hope to see you on this years Ride. Here's a sampler from our 1987 mail bag.

WOLLONGONG REVISITED, 1987 BY FRANK KILLON

IT'S SIGNIFICANT, for this saga, to compare a long car trip with a longish (for the novice) bike ride like the Sydney to the 'Gong. Significant in that a sensible rider/driver would go to some length to minimise the possibility of mechanical failure etc. I did but even the best laid plans can go astray as my story reveals!

I had never, in my 3 previous trips to the 'Gong, experienced any sort of bike failure, not even a flat. After the 1987 ride I am now ready (and more confident) to cope with just about any normal emergency.

I suppose every rider is interested in what the weather is going to be like on the day. Earlier in the week prior to the ride a north easterly wind was predicted. "Good," I thought, "better than that rotten southerly which hit us for most of last year's ride." (Who could forget coming around the hairpin bend at Coalcliff). Rain, hail or shine we cyclists are a hardy lot and whatever the conditions, we'll take on the challenge. So on the day – a day which is looked forward to by some 3,500 cyclists – a fresh southerly didn't deter us, it simply called for extra effort. No problem.

Gearing up for the ride and being prepared are also considerations to be taken into account. Having done this I set out for the nearest station (Rockdale). I had only to ride to the end of my street before being passed by a

group of 5 with the same intentions. More riders were encountered on the trip to Central. It all gave the impression of a takeover of the city by cyclists – and so it appeared on arrival at Belmore Park. An aura of expectation pervaded the area as cyclists and their trusty steeds milled about in small groups.

The absence (understandably) of the traditional Lord Mayor's farewell made the start a little more ragged than usual. The much appreciated escort service comprising policemen, the Southern Cross Motorcycle Club, and the support vehicles readied themselves as anxious riders jockeyed for positions to start the ride shortly after 8 am.

It may have been an omen that I noticed, close to the start, a cyclist already in strife. But there were many incidents throughout the ride of unfortunates coping with minor or major on-the-spot repairs. You think to yourself, "Well, bad luck - glad it's not me."

It was about Newtown that I noticed a slight, though regular, "clunk", which with hindsight, should have been investigated. It wasn't, and I paid the penalty just south of Rockdale when my chain fell apart. Fortunately, I had a chain rivet tool and was soon back on the road cursing and promising to drive the rivet fully home when next taking my chain off. Always a first for everything!

Of course, I'd like to think that with so many riders around there would be plenty of assistance. Such was not my experience. Perhaps I looked sort of competent; could cope (which I could) and any offers would be out-of-place. I did though, like an accident victim, need reassuring; needed to know that someone cared about my plight. Now that I've been" through the mill" I'll be more compassionate. After all, it's not a race and by comparison with motorists,

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we are a small group with a common purpose and have to stick together.

I overheard a sincere remark made at the lunch spot that it was going to be all downhill, and easier, from there. Those that know, know better, of course. The big challenges lay ahead, especially, Clifton (coronary) hill.

My next piece of ill fortune occurred as I mounted my bike after lunch – all ready for the grinding Otford hill. That would have to wait a little longer as I quickly learned that, while lunching, my rear (isn't it always) tube was slowly deflating! A spare soon had me resuming the ride. So far, so good. They say that trouble comes in three's and I was no sooner under way when I could hear the ominous rubbing of the rear wheel on the brake pad. The polite terminology would have been, "Golly, a broken spoke" – an appreciable understatement.

Well, this I wasn't prepared for and as the support vehicles were nowhere in sight, I decided to "trust my luck" and ride on regardless after releasing my brake pads. I was hoping that my 40 spoke wheel would hold out for the remaining 40 km. On a wing and a prayer, it did.

With these adversities in mind to supplement my determination, I was able to achieve, along the way, something which I had previously not been able to

do. That is, a non-stop ride up Clifton hill. I'm sure most riders would regard this hill, situated as it is, just beyond the spectacular Coalcliff area, as the most challenging of all the hills on the ride. For me, akin to breaking a four minute mile. Even for the unsuccessful, the reward of a succulent orange at the summit made it all worthwhile.

I couldn't think of a better finish for a ride of this type than the 'Gong cycleway now running south from Bulli Point. It's a credit to those with the foresight and certainly shows what can be done (eat your heart out Sydney!).

The overall scene at the finishing point after about 90 km of sometimes arduous, sometimes exhilarating, cycling, said it all! Flagstaff Point was awash with bodies showing a mixture of tiredness and exultation; taking refreshments; relating experiences and making arrangements for the return trip home. However, all making sure that they collected their cloth badge, sticker and Certificate of Achievement – as evidence for the skeptical! Well done to all.

Apart from the wonderful scenery, the enjoyment of the company of other riders makes this ride all the more rewarding. So a special thanks should go to Russell (SRA), Hans (Engadine), Jim (ITCC) and the chap from Wauchope (keen!) with his son in tow, for adding to the day.

A special note of thanks should also go to the organisers for their efforts both before and after the ride. The return of the bikes by semi-trailer and their retrieval (after some initial apprehension) seemed to work out in the end.

I suppose many novice riders experience the feeling during some particularly difficult part of the route, "What am I doing here?, etc.," But there's a certain magic that tells us we'll be back, simply because, "it's there".

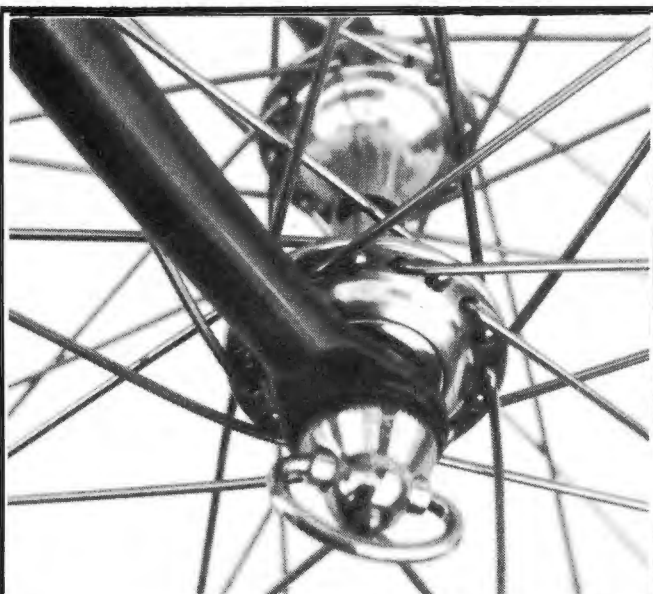
WE ALL WERE ONE

BY BILL SCHNABER

1 987 WAS my first time in the Repco Sydney to the 'Gong Bicycle Ride and I would like to take this opportunity to congratulate all concerned with the organisation of the event. It was brilliant; well done!

Have I any treasured moments? Many, but perhaps the one I shall always remember: a small girl on a simple bike struggling up a long hill. As I passed her, and looking down saw her reddened face grim with effort, encouraging her I said, "You will make it". Upon which I received a nod and a beautiful smile.

That magic day we all were one.



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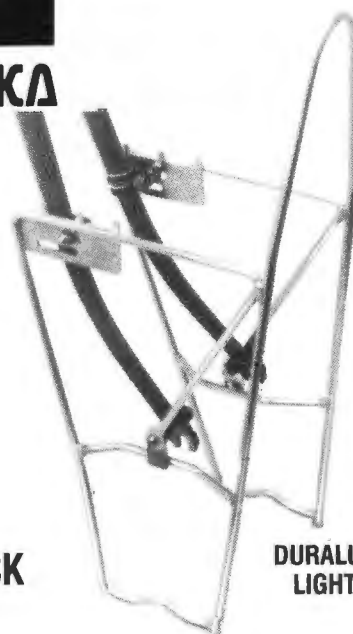
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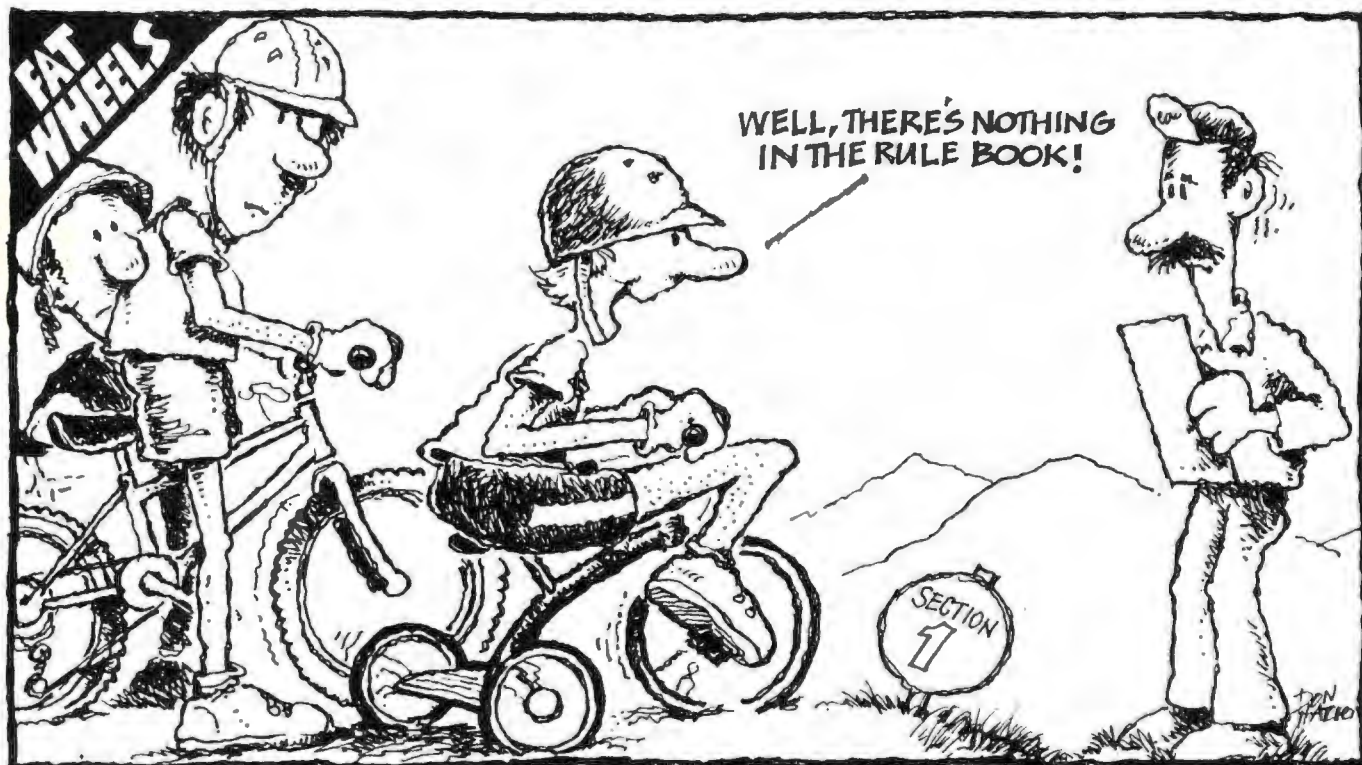
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MOUNTAIN BIKE NEWS

Canberra to host MTB Nationals

The 1988 National Mountain Bike Championships will take place in Canberra over the weekend of November 5 & 6. The governing body of the sport, the newly formed Australian Mountain Bike Association, had investigated a number of proposals and has awarded the running of the event to a private promoter Active Australia of the ACT.

A total prize pool of \$5000 plus more race categories is expected to attract riders from the big centres of Sydney and Melbourne as well as the other states.

The program will include Open Hill Climb, Open Down Hill, Time Trial, Open Observed Trials, and Enduros for various rider categories. There will be a prize for the person who does best over

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all events (Omnium) however, the National Mountain Bike Champion will be the rider who wins the Expert Enduro.

Entry forms for the Nationals can be obtained by writing to AMBA, PO Box N25 Grosvenor Place, Sydney NSW 2000. More details in the next *Freewheeling*.

The Range - a rage

Regular mountain bike races have commenced at the Range early in the year following a visit from US mountain biker Bob Hadley. Bob, who used to be an organiser for the National Mountain Bike Association helped Jamie Hales get the race meet started. Jamie now reports good roll ups to his monthly event.

In May, thirty eight riders braved rainy conditions to race a 2.8 km lap course. Wayne Hildred is the rider to watch in future MTB events as his lap times at the Range were one minute faster than the nearest competition. The Range races are sponsored by Repco Cycles and Ray's Bicycle Centres and are held on private property at Gruyere on the outskirts of Melbourne. For further information about the Range Race program contact Jamie Hales (059) 64 9229.

Sydney clubs get into gear

The establishment of an Australian Mountain Bike Association has provided a catalyst for the formation and rejuvenation of MTB clubs in the Sydney region. The North Shore Nobbies is now riding on a regular basis and reporting good attendance on their mostly day rides. The club caters for both non-competitive and competitive riding and it should field a strong team in the forthcoming nationals. For more information about the club and its rides contact David Kitchen at St Ives Bicycle Centre (02) 449 8289 or Heather Nesbitt at Cranks Bikeshop (02) 411 5116.

Elsewhere in Sydney a new club has been formed in the east and there are signs of a club to be formed in the south. The Eastern Suburbs Ground Hogs can be contacted through Chuck Smeaton on (02) 300 0305 (AH). We will print contact information on the new southern subs club when it gets moving.

Fat Chat

As reported in an earlier *Freewheeling* a mountain bike group in South Aus-

tralia is now underway. The Adelaide Mountain Bike Group publishes a program of day rides all included in a jazzy little newsletter titled *Fat Chat*. The group's organiser is Peter Heal and he can be contacted on (08) 263 3605.

Mt Buller Festival

The Mt Buller Ski Resort in Victoria has made plans for a major mountain bike event late in the year. Although no date has been confirmed several details have been released. There will be a full weekend of activities for virtually all mountain bike enthusiasts.

Patterned on the mountain bike festivals so popular in the USA the Mt Buller event will offer cyclists the choice of fun rides, wilderness tours, competitive events or just spectating or partying.

Mt Buller's overnight rates go down during the summer months making a weekend's holiday for the mountain bike event attractive. Still, with the resort less than three hours by car from Melbourne, it is within easy reach for day trippers.

Full details in the near future or for updated information send a stamped addressed business size envelope to Jamie Hales, The Range, Range Rd Gruyere VIC 3770.

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Philip Anderson the Aussie who made Tour history in 1981 by wearing the Yellow Jersey. Phil is seen on the wheel of five-time winner Bernard Hinault during their historic battle in the Pyrenees. Phil's team was eliminated from this year's event.

CYCLING'S MAIN EVENT

How the Tour de France grew to become the world's largest sporting event

BY JOHN DRUMMOND

It was while searching in the year 1903 for something bigger and better than the 1200 kilometre single stage Paris-Brest-Paris bike race (won by Australia's Hubert Opperman in 1931), that enterprising publisher Henri Desgrange had the idea of a race around France in several stages. Little did he know that his initiative would give the world its biggest sporting spectacle.

Desgrange was no stranger to cycling competition. He unwittingly gave the sport one of its most sought after events when he established the first official record of an unpaced hour on the 'Buffalo' track in a suburb of Paris, on 11 May, 1893 with a total of 35.325 kilometres.

Since then it has been the most desired record of the world's cycling greats and is presently held by the now retired Italian master cyclist Francesco Moser, who extended the distance to 51.151 in Mexico in 1984.

As owner of the French sports newspaper *L'Auto*, Desgrange knew full well

the value of publicity to boost newspaper sales so he set about the task of expanding the idea of Tour racing. With plenty of advertising and sponsors, Desgrange was optimistic but, with one week to go, only 15 riders had entered. He reduced the race to a maximum of 21 days, cut entry fees, guaranteed expenses and declared that unless he had 50 riders the race would be cancelled.

A total of 78 entered, and sixty started. The race was won by Maurice Garin by the huge margin of nearly 3 hours, still the biggest winning margin. Twenty nine riders finished the gruelling 2,428 kilometre seven stage event.

Desgrange proved a tough minded Director during the 32 years he was in control. The 'father' of the Tour de France also conceived the publicity caravan which accompanies the racing cyclists during the Tour like a spectacular travelling circus along with the official cars.

It was perhaps a greater success than Desgrange ever imagined. In ten years the sales of *L'Auto* grew from 14 million

to an astonishing 43 million in 1914, ample evidence to the selling power of sport. The Tour stressed from the beginning the link between the media and the cycle trade and still does in today's television era.

However, the heart of the Tour lay with the physical feats of the riders and it is these that truly fired the public imagination. By 1906 the race had expanded to thirteen stages over nearly 4,800 km. The riders were on the road for fifteen hours or more and exhausted men would still be finishing a stage hours after the leaders had crossed the finish line. No wonder they needed alternate rest days and no wonder more than two thirds of the field used to drop out before the end.

The Tours were epics of endurance from the start. The modern day Tour is more than just a bike race. It is the world's biggest single sporting event, certainly the longest and hardest.

The Tour was originally an individual bike race then an individual race between national teams and finally a business teams race with each team member striving to get the often various team leaders into the best place possible over the finish line in the Champs Elysees in Paris.

Apart from the 200 participating cyclists, there are 500 cars in a following caravan. The cars carry up to 450 press, radio and television reporters, with technicians to ensure communications are kept open wherever the journalists may stop. Then there are medical teams, commissaires (referees), team managers, police escorts who keep the roads closed to other traffic whilst the race passes. In all there are up to 2000 non participants.

Each modern day event costs up to two million dollars to run. To cover costs the race organisers sell stage finishes to towns on the route, and invite the business houses of France to advertise on a special advertisers caravan which follows the race. This is very profitable as all France is on the doorstep as the Tour goes by, then back on to the television to follow the action. Television rights are sold and telecast to untold millions throughout the world.

The marathon course changes according to a town's contribution towards the Tour expenses – some pay as much as \$20,000 for the privilege of having a stage finish. But in general it loops France.

Maurice Garin's victory in that first Tour caught the French public's imagination, not only for the deeds of the



The great Italian Faust Coppi, the only known cyclist who could simply ride away from the peleton – most of his victories were won that way. Coppi also had his career restricted by the Second World War. He won two tours in 1949 and 1952.

mighty men but also the distance and places involved, for at the turn of the century not many people travelled far away from their towns and villages.

The following year the riders raced 2,388 kilometres – the shortest distance in the history of the race – and with the slowest average speed of 24.292 km/h. Henri Cornet, the winner, was at 20 also the youngest winner ever.

The race was marked by incident, for with passions aroused rival supporters clashed, often violently. Even the riders were attacked with sticks at St Etienne when Benoit-Faure, a native of St Etienne, was supposed to reach Marseilles first.

More trouble flared on the final stage to Paris. Desgrange was horrified, declaring the Tour to be his last and killed by its own success. However, he was persuaded to try again during the following months and a trouble free third Tour was won by Louis Trouselier of France.

Desgrange was still not satisfied. A good part of France is mountainous, so why not take the race to the mountains? If the French minds had been fired by the earlier races, then this incursion into the mountains in 1905 really set their emotions alight. It was not only man against man, but now man against the mountains.

In 1906 the climb up the 1,188 metre Ballon d'Alsac was considered grotesque, but Lucien Petit-Breton outpaced his rivals on the flat and conquered the mountain to win. The field of 82 was decimated with only 14 ever to reach Paris. However, the mountain section remained and Petit-Breton won three successive Tours.

The Tour de France became an obsession with Desgrange, he constantly searched for more difficulties for the cyclists to encounter.

In 1909 Luxembourg's Francois Faber became the first non-Frenchman to succeed after finishing second the year before. Faber's win also broke the sequence of victories by Peugeot.

The Tour went into the Pyrenees mountain chain for the first time in 1910. It was reluctantly accepted by the riders along with Ballon d'Alsace. Delighted with the initiative Desgrange took the 1911 race up to the 2,438 m climb of the Galibier. This required a new breed of climber, even cars would fail on this road because in the dry heat petrol would often evaporate before it could reach the carburettor.

Desgrange did not seem to recognise that the human body – or the human spirit – had limits. The Tour was now an epic of endurance. Riders had to change their own tyres if they punctured: the quick wheel changes of today were not available, and they had to repair their own machines when they broke down.

Grotesque things happened to them. Their eyes resembled those of hunted, wounded animals. From their mouths came occasional pleas for help. They cheated in small ways, mumbling thanks for a sly push from a moved spectator.

They got fined small sums by old men for snatching an illicit bottle of water, for hanging on to the wings of passing ambulances. But they kept creeping up the mountain.

Gustave Garrigou of France won that dreadful Tour of Pain and suffering over 5,544 kilometres. Garrigou had been the victim of sabotage the year before when someone had tampered with his bike.

No longer was it just necessary to have high reserves of stamina, and more all-round ability to emerge a winner. The Alps and the Pyrenees play a significant role in deciding the winner of today's Tour. It is generally conceded that you have to win a mountain stage to win the Tour de France.

Odile Defraye became the first Belgian winner in 1912, then the race was stopped between 1915 and 1918 because of the first World War.

With the end of war Desgrange lost little time on revival and the Tour was resumed in the summer of 1919. It had been a matter for complaint pre war that it was difficult to distinguish the race leader from the rest. So the wily De-



The late Jacques Anquetil, who died earlier this year, was one of the three immortals who have won the Tour five times.

sgrange vested him with a yellow jersey. It was widely acclaimed by the war weary French.

Desgrange's *L'Auto* newspaper was printed on yellow paper, so why not a yellow jersey? It proved a master stroke. The "Maillot Jaune" still marks the leader of the Tour today and has become almost universal symbol throughout the cycling world.

The first man to wear yellow was Eugene Christophe, but that was not his only claim to Tour de France history. Six years earlier Christophe had made history of a different kind. He was riding second on the Pyrenean Col (mountain pass) Tourmalet and 18 minutes ahead of his main rivals when his front forks broke.

He was forced to walk 14 kilometres and watch his opponents go by. At St Marie de Campan he reached a blacksmith's shop. There he had to repair the broken forks himself for no outside assistance was allowed under the rules. He was allowed to have the bellows worked by a small boy. An official stood by while the work was performed. He eventually finished seventh, and the incident probably cost him the Tour that year.

Once the war was over Christophe entered the 1919 race, and this remarkable man had a similar fate await him. He was in the lead when his front forks snapped again just outside Valenciennes. It was back to the forge for poor Eugene, and he was to finish third overall to Belgium's Firmin Lambot and destined never to win his nation's tour. He was seven times the French cyclo-cross champion, and at 40 rode his eleventh and final Tour.

Post war Tours proved milestones with 24 stages in the 1928 version – the largest number ever. In 1930 trade teams were abolished and National teams in-



The Tour de France is more than just a bike race. This acrobatic pneumatic character is part of the huge Tour advertising caravan.

troduced. The publicity caravan was introduced that year too.

Although variable gears had been satisfactorily used for some time, Tour de France riders were restricted to two gears only. In the mountains they had to use different sprockets. It was not until 1937 that derailleur gears were permitted.

Some epic battles between Italy's Gino Bartali and France's Roger Lapébie took place before the race was stopped by the Second World War. Lapébie won in 1937 and Bartali in 1938, and Bartali was to win again, and at 34, the oldest rider to win.

The Tour didn't resume again until 1947 and was won by diminutive Frenchman Jean Robic. Bartali won in 1938. Bartali, at the age of 36, a stage race specialist and the most colourful figure of Italian cycling over the preceding 15 years, planned to win the 1949 Tour as a last milestone in his phenomenal career. But standing in his way was Coppi — "Il Campionissimo".

Coppi was a superb allrounder with the ability to climb or simply to ride away from the opposition. He could also manage a good time trial (he won the Grand Prix des Nations twice) as well as holding the world hour record and twice winning the then world track pursuit championship.

Batali was irresistible in the mountains. No one could match the phenomenal mountaineer, who revelled in the terrain, climbing Alpine peaks of 2,000

and 3,000 metres with complete mastery, while the peloton remained spreadeagled over the mountainside, and official cars strained to make the grade. The roads were strewn with mud and snow, while bitter sleet reduced the field, with numerous competitors abandoning the race in exhaustion.

But it was of no avail against age and the all round ability of Coppi. Fausto Coppi won the Tour whilst Gino Bartali remained King of the Mountains. Coppi was to win again in 1952.

Both Coppi and Bartali would merit consideration for the title of the greatest Tour de France rider ever.

Ferdi Kubler was the first Swiss to win in the early fifties (1950) when the climbs of the dreaded Mt Ventoux (1951) and the Puy de Dome (1954) were introduced.

The green jersey for points winner came into being in 1953. The first twenty five riders to finish each stage are awarded points and this jersey is riders' next most sought after prize.

Probably the greatest road time trialist of all time, the late Jacques Anquetil won the first of his quintette of wins, four in succession, in 1957. After his second win in 1961 the Tour carried an increased number of time trials which probably accounts for the rest of his victories.

Frederico Bahamontes became the first Spaniard to win in 1959, while Jan Janssen made history for Holland by winning in 1968.

In between the Bahamontes and Janssen years there was joy and tragedy. Talented Roger Riviere, the world track pursuit champion and hour record-holder broke his back in the 1960 Tour when he fell down a ravine. Tom Simpson started the success of the English speaking rider when he wore the Yellow Jersey for a day in 1962 the year when trade teams were re-introduced. Five years tragedy struck when the popular British rider collapsed and died in the cruel heat of Mt Ventoux.

Eddy Merckx of Belgium, laid claim to being the best cyclist ever when he made his Tour debut to win in 1969. At that time he had already won world titles. Merckx not only equalled the 5 times Tour winner record of the late Jacques Anquetil — but was to win all the one-day classics as well, not once, but several times.

Merckx was indeed majestic and topped up his 1969 success with Tour wins in 1970-71-72 and 74, a feat equalled by Breton Hinault in 1978-79-81-82 and 85.

When aussie Philip Anderson won the coveted Yellow Jersey in the 1981 Tour he climbed into history. It happened on stage six and although it may not have lasted long, he did trade the *Maillot Jaune* for the white jersey of best young rider. At the doorstep to the Alps a week later, he was still in second place to

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world champion Bernard Hinault.

The 23 year old matched Hinault on the first real stage into the Pyrenees after five days of racing. Neither won the stage – that went to 1976 Tour winner Lucien Van Impe of Belgium – and Anderson didn't even beat Hinault but there's no doubt who came out best in the end. When Anderson left Melbourne he was regarded as a climber, but not a great climber. But on the tough climb that finished 117 kilometres of racing between St Lary-Soulans, he climbed with the best and into history.

With Hinault sidelined with injury Laurent Fignon continued the French dominance in 1983 and 1984.

American Greg Lemond scored the first win for an English speaking cyclist

when he beat his team mate Bernard Hinault for Tour honours in 1986, thus denying Hinault outright leadership in the total Tour win aggregate.

Grim pictures on television often provide a telling insight into the forbidding price that the Tour demands of its heroes. With his face covered by an oxygen mask, Irishman Stephen Roche was driven away in an ambulance, totally exhausted at the end of a gruelling climb to the Ski resort of La Plagne.

Roche had just completed the commitment that not only won him the 1987 Tour, but also made it truly international.

Tom Simpson the British World Champion of 1965 who collapsed and died climbing the dreaded Mt Ventoux in 1967.



TOUR DE FRANCE FEMININ

In the four years since the inaugural womens' Tour de France the race has settled as the major showcase for womens cycle racing.

Like the men's event which it precedes on about two-thirds of the stages, the Tour Feminin combines the rolling roads of central France with the fearsome terrain of the Alps and the Pyrenees.

Although only in its fourth year the Tour Feminin has been dominated by two champions. They are Maria Canins of Italy and Jeannie Longo from France. The inaugural Tour was won by American Marianne Martin, who came from the mountains of Colorado to thrash her opponents in the French Alps.

Maria Canins, a Tour specialist, won the '85 and '86 tours by holding her position in the pelotons and limiting her losses to a minimum in the time trails, prior to basing her success on stunning rides up the mountain passes.

Longo, almost ten years younger than Canins, after finishing second in '85 and '86 rose above Canins to conquer in '87. And following her world title and late season success is now the world's top rated woman cyclist.

Australia was represented in 1986 Tour Feminin by Kathleen Shannon of Sydney, Robyn Battison of Victoria, Jacqui Uttien of West Australia, Debbie DeJongh of the ACT and Elizabeth Hepple of Queensland whose performance was little short of sensational finishing fifth to star performers Canins and Longo.

The team of Hepple, Shannon, Battison, Donna Rae-Szalinski (VIC) and Donna Gould of South Australia, represented Australia again in 1987 and performed with great credit against over a hundred of the world's top women cyclists. Elizabeth Hepple, although carry-

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ing injuries as a result of a fall, finished a gruelling Tour in 15th place at 32.58 sec. Robyn Battison was 21st at 44.30 secs, Donna Rae-Szalinski 32nd at 54.47, Kathleen Shannon 40th at 58.50 and Donna Gould 48th at 68.40.

To finish at all was a victory in the tough 1000 km Tour in which only seventy seven finished.

THE 1988 TOUR DE FRANCE

A new book to preview this years clash of the road-men and women

BOOK REVIEW BY WARREN SALOMON

1988 Tour de France A Channel Four book by Phil Liggett. Harrop Ltd (UK) Distributed in Australia by The Australasian Publishing Co. RRP \$37.95.

Britain's Channel Four has made a huge contribution to quality television both in the UK (and here through SBS). Most importantly it has broken down the resistance within the British media towards cycling. Each year it provides a daily coverage of the event watched by a daily average of 300,000 viewers. Thanks to Channel Four a record 3.1 million Britons were able to watch Stephen Roche ride triumphantly down the Champs Elysees to become the second English speaking winner (and the first Irishman) at the end of the 87 event.

This year Channel Four is planning an even better coverage and this handsome book has been designed as the ideal companion. It is quite common for British television to produce 'books of the series' - the BBC has been at it for years - and our own ABC and SBS have all released superb companion volumes to accompany their better programs.

So its a shame that we have the book and not the moving pictures. SBS (who often run Channel Four programs) tell me that they can not afford the satellite charges to show this year's coverage so the American CBS weekly compilation shown each year on the Nine network will just have to do.

The book does, however, stand well on its own merit. It is full of fascinating information on past rides and has a good section (with photos) on the often stormy history of the event. The text is written by Channel Four commentator and sports writer for the London *Daily Telegraph* Phil Liggett. A number of photographers have provided the pictures including Graham Watson, Phil O'Connor and the major sports photo libraries.

What makes this book so interesting for an Australian are the chapters dealing with the many aspects of the Big Event often referred to but never explained in detail, such as: the Caravan, which follows the race around France like a bizarre advertisers circus; how the 1000 strong media corps get their stories; tactics; equipment; and the demands of the race on the riders themselves.

The book is hard bound and has over 150 pages of information including a glossary of all the French racing terms, lists galore, a form guide to this years top contenders and a good chapter on the Tour Feminin.

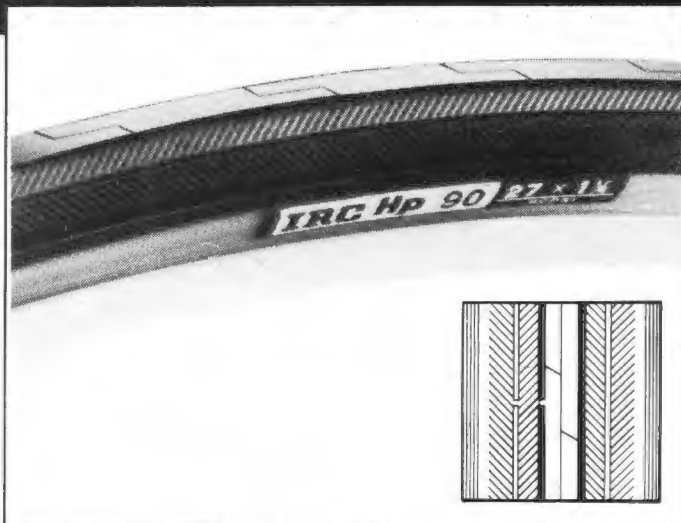
It's impossible to see the whole of the race close up in Europe let alone in Australia so this book should keep Australian Tour watchers happy until the video arrives sometime in August or September.

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REPCO



CYCLES

100 YEARS OF CYCLING

1888



"Yes, yes, it's a strange invention, but save your worry until they get up to Uranium mining."

1900



"Mark my words, Madam, a female on a cycle can only become a fallen woman!"

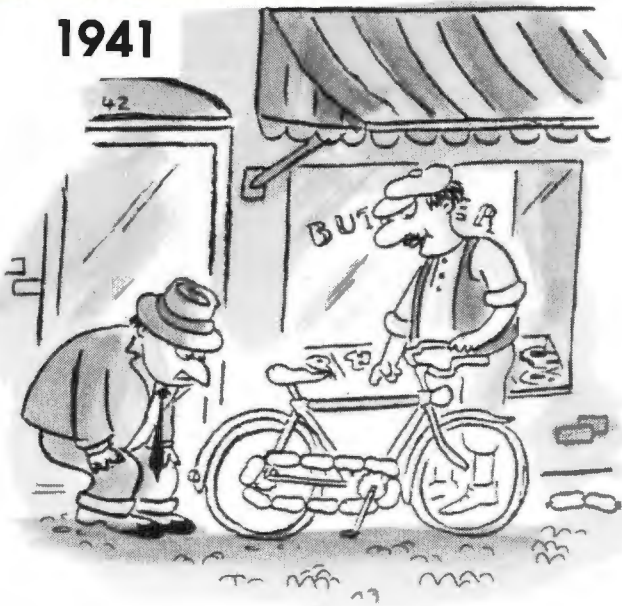


1929



*"I'm a fitness enthusiast.
I travel everywhere by bicycle."*

1941



"They've diverted chains to the war effort but I've got plenty of meat ration coupons."

1967



"Hey, man, either sell me your bike or half a pound of whatever you're smoking!"

1988



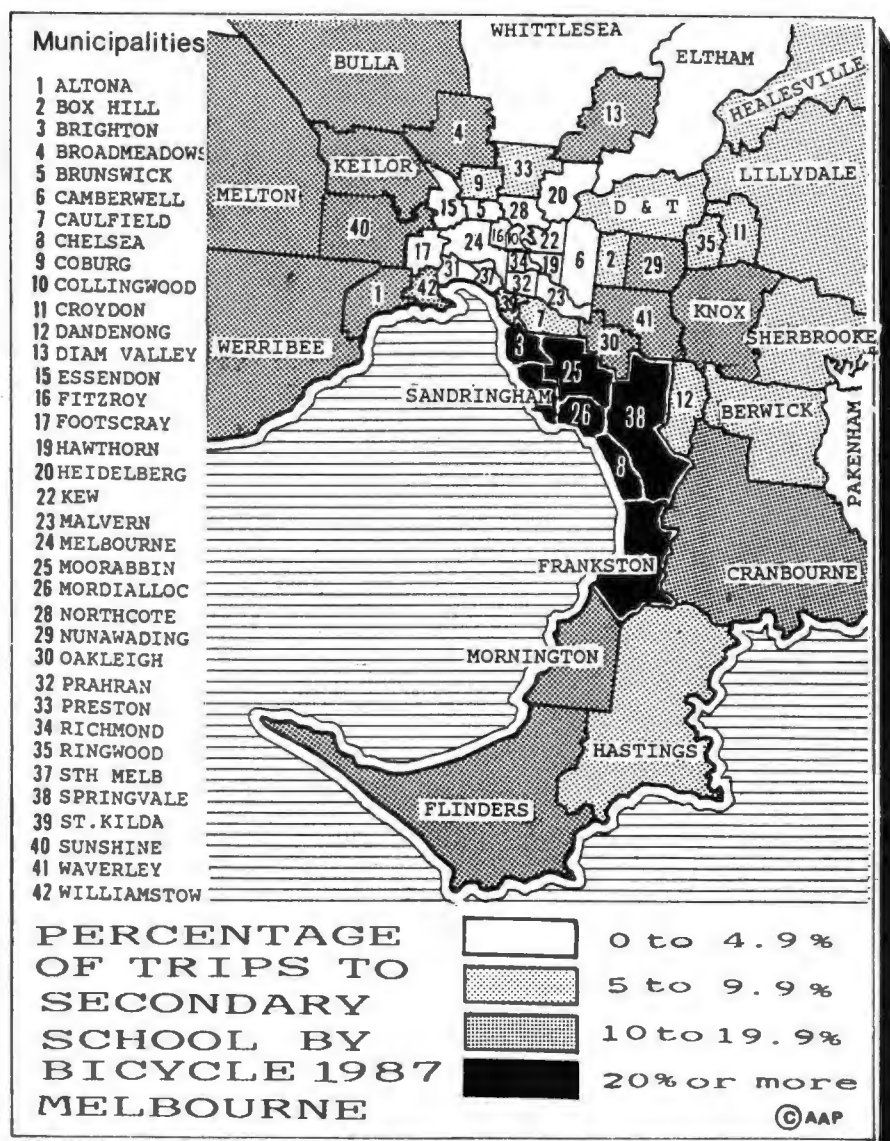
"Isn't it nice to feel the warm glow of another sunset on your back?"

Somerille

CYCLING TO SCHOOL IN MELBOURNE

A large proportion of high school children are less fit nowadays. Is this because they are riding and walking to school less often?

BY ALAN A PARKER

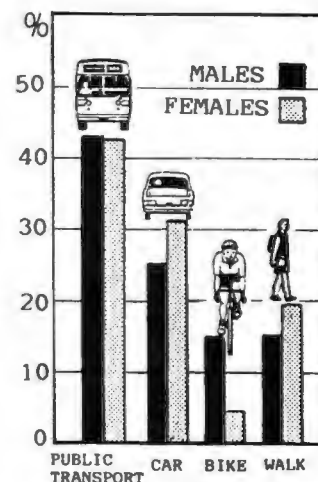


In any city the movement of secondary school students is a major task and Melbourne, with 260,000 secondary school students, is no exception. After ten years of bicycle planning very little is known about travel to school except that in some suburbs 40% of the students rode bicycles to school while in others very few rode at all. And no one knew the reason why.

For those wanting to encourage bicycle use this is a very important issue because so far the two ways of increasing bicycle use are by putting adult bums on saddles and secondly: keeping secondary student bums in the saddle.

As around 85% of all 13 year olds own and use bicycles the name of the bicycle encouragement game is to keep more of them on the saddle as they grow older.

The most interesting data from the Ministry survey is the wide variations between areas. Sandringham comes out on top with 48% of the students riding to school, Chelsea had 41% and then there is a big drop down to Moorabbin with 27%, Frankston 26%, Brighton 23% and Moordialloc and Springvale with 20%. The rest of Melbourne municipalities fall into the two other categories. Note the concentration of high use areas (black) in the bayside suburbs and the very low levels (white) in the northern inner suburbs, Camberwell, Heidelberg, Whittlesea and Eltham. A typical working class suburb with an average level of bicycle use is Sunshine with 10% of trips to school with a 79% level of bicycle ownership.



How boys and girls travel to high school

While this chart shows that there is very little difference between the percentage of boys and girls who go to school by public transport, three quarters of those who cycle to school are boys. Only 4.6% of the girls compared to 15.1% of the boys cycle to school.

The first ever comprehensive survey of trips to school

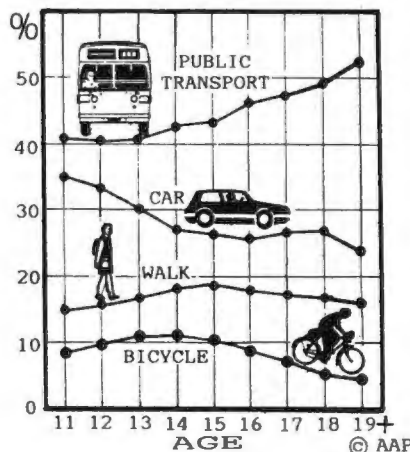
The Ministry of Transport's bicycle co-ordinator (MTA) Doug Bell surveyed a massive 220,000 Melbourne students at 424 secondary schools to find out how they get to school. As 30,000 of these students cycled to school it provides bicycle planners with a lot of useful information not available before.

We all know boys are different than girls but few people are aware that this shows in the way they respond to traffic as cyclists. Girls choose to or are compelled, by their parents to walk instead or are driven to school. The bar chart A clearly shows that percentage difference between male and female cyclists is equal to the increase in female walkers and car passengers.

The Ministry survey raises as many questions as it answers and its strange indeed that so many local bike plans and the Melbourne bikeplan take an essentially male sexist view of cycling by failing to analyze the needs of women cyclists.

Fortunately, some are coming to grips with this problem. Traffic safety researcher Barry Elliot's comments are very relevant, to the question of why so few girls cycle to school:

Whilst young people generally perceive the roads to be dangerous, they believe the main and busy roads during the peak hours to be the most dangerous. On the roads fast cars, trucks and buses, going around parked cars on busy roads and right hand turns from the middle of



the road and riding in the wet are the major causes of concern.

Girls, whilst feeling confident in their skills as competent riders, do feel more vulnerable on the roads. They positively hate buses and trucks.

It would appear that the overall low level of cycling by the boys and the very low level of cycling by the girls has to do with the appalling traffic conditions in the vicinity of most schools. There are lots of relatively safe back routes and a high level of local area traffic management in the areas where cycling to school is most popular, but in other areas such as Sunshine, traffic conditions are very poor.

In places such as Doncaster and Templestowe where more parents have cars, the schools are further apart and

Student travel by age

The most disappointing fact to emerge from the Ministry survey is the rapid decline in bicycle use by students after the age of 14. The graph shows that bicycle use drops to nearly one half for 18 and 19 year olds still at school. This graph also shows that the car is used less by these older students presumably because their parents feel that they are no longer in need of a ferry/chaperon service.

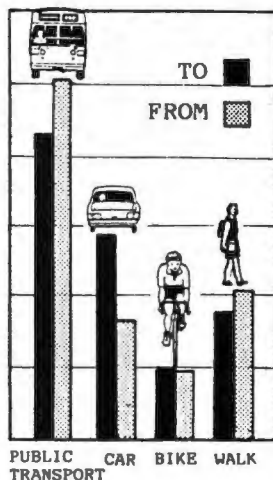
its very hilly. These other factors combine with the fear of traffic and result in a very low percentage of trips (5%) to school by bike. In the inner suburbs schools are much closer together and there is an excellent public transport and many more students either walk to school, or use the trams and buses.

Because so few students walk or go by bike to school, there is a lot of pressure put on the public transport system. This is worst in the afternoon because so many of those who are driven to school on the morning have to make their own way home. In the afternoon 25,000 extra students come home by tram, train or bus.

The Ministry of Transport has a very keen interest in this because 17% of all public transport trips are to school and most of these are at the time and in the direction of the peak traffic flow.

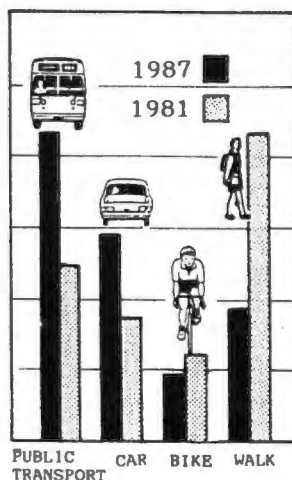
Primary school students are less of a problem because there are five times as many smaller schools which are much nearer most students homes.

As so few students cycle to school



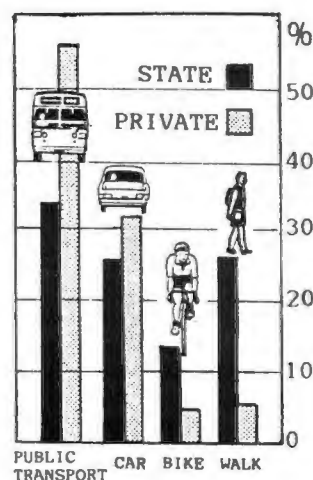
The difference between coming and going

In the afternoon many more students have to make their own way home because so many of those who are driven to school on the morning. In the afternoon 25,000 extra students come home by tram, train or bus. The Ministry of Transport has a very keen interest in this because 17% of all public transport trips are to school and most of these are at the time and in the direction of the peak traffic flow.



The change in travel to school 1981 1987

Several studies over the last few years have shown that secondary students are becoming less fit. When we compare how students travelled to school in 1981 and in 1987 on this bar chart we can see one of the reasons for this. There has been a massive reduction in the percentage of students walking and cycling to school and an equally massive increase in those who are driven or go by public transport to school.



The difference between travel to government and private schools

This chart shows a much greater percentage of private school students use public transport. Few private school students walk or cycle to school. There are 46,000 less private school students than state school students but 15,000 more of them use public transport.

there is a long term opportunity to make better provision for student cyclists which would not only save them time and money but take some of the pressure of the public transport system in the peak period. Many of the 50,000 parents who ferry their children to secondary school would no doubt appreciate being released from this driving chore.

Several studies over the last few years have shown that secondary students are becoming less fit. There has been a massive reduction in the percentage of students walking and cycling to school and an equally massive increase in those who are driven or go by public transport to school.

It's no wonder that student physical

fitness is declining when in a mere six years 65,000 less students now get exercise out of travelling to and from school. What's more, government is subsidising this lack of fitness with its students fare concessions.

Suburban sprawl has contributed to this problem because the provision of schools has tended to lag behind and the overall urban density is much lower thus increasing the distance between home and school. Another problem is the increase in the number of students going to private schools.

Parents who send their secondary school children to private schools find that these schools are usually much further away than the local state school

so they have to drive their children or send them by public transport. As a result a much larger percentage of private school students use public transport. Few walk or cycle to school. There are 46,000 less private school students than state school students but 15,000 more of them use public transport.

The figures show public transport subsidies in the form of student concessions are benefiting private school students to a much greater degree than state school students and they are producing more than their fair share of peak loading on peak hour trams, trains and buses.

Clearly a policy is needed to ensure that private schools are located near where there is a student demand and town planning permits should not be granted for new schools or major extensions in many existing areas. It is better for the health and fitness of children for them to be able to walk or cycle to school in safety and as well reducing peak hour loading of public transport and roads in the vicinity of schools.

Depending on the suburb 75% to 95% of students have a bicycle or use one. The data showing bicycle trips to school by the age of the student is rather disappointing. The survey data shows that secondary students are not using their bikes to travel to school and in most of Melbourne there could be a very much higher level of usage. For this reason there is a need to think out a coherent bicycle encouragement program for existing student cyclists. No such program currently exists but when it does it will doubtless be primarily targeted at girls.

Bicycle facility planners should take note of the fact on average girl students and women have a greater preference for separate bicycle facilities and are more traffic sensitive than men and boys.

The planning briefs given to consultants for local bicycle plans should clearly state the need for 'safe route to schools' projects along the lines of the projects now being done in Europe and recommended by the Social Development Committee of the Parliament of Victoria.

A number of interesting policy implications arise out of the Ministry survey which need to be considered by the State Bicycle Committee. Indeed, in other States it's likely that the same thing is happening, but no one is doing anything about it because no one has measured the size of the problem.

In Sydney for example, a 1985 study shows that there are twice the number of public transport trips to school as in Victoria. With the new Greiner government looking at the issue of government travel subsidies to students it would be better to encourage students to cycle rather than the usual approach pricing them off the public transport system.

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Classifieds

TOUR MATES

TOUR MATES is a FREE service for readers wishing to find companions for bicycle trips and holidays. Entries are limited to thirty words and there is a charge of thirty cents per word for any long entries exceeding the limit. Payment (if applicable) must accompany your listing. Name, address and phone number should be attached for verification purposes.

SYDNEY - ADELAIDE American touring cyclist, age 38 seeks companions to Bicycle Australia in 88. Want to tour self contained from Sydney to Adelaide in October, riding 100 to 150 km per day with rest stops to explore the "Wonders Down Under". Contact: James R Arcate, 3289-A Manoa Rd, Honolulu HI 96822 USA.

SYDNEY TO PERTH Leaving Wollongong 14/9/88 via Adelaide and Albany. All or part of the journey. Contact: John Johnston, 37 Aldridge Ave Corralim NSW 2518. Phone (042) 83 1419.

PERTH - MELBOURNE Wanted, companion(s) for ride to Melbourne. Possibly train from Kalgoorlie to Adelaide. Phone Alex Sanson at work (09) 380 2749 or at home (09) 386 3535.

PERTH TO SYDNEY (Return possible). Wanted, companion for trip to Sydney (at least as far as Port Augusta). Contact Mike Madlener, 13 Hawter Rd, Glen Forrest 6071 WA. Phone (09) 298 8922.

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BICYCLE TOUR SERVICES provides rentals, itineraries, accommodation and tours. Box 11-296, Auckland, New Zealand. Phone: 591 961. Telex NZ61208 "PWAKLTD". Fax 594 957.

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WOULD YOU like to meet other bicycle tourists when you tour? If so, join the Cyclists' Accommodation Directory. This is a list of cyclists who are prepared to exchange simple hospitality in their home for similar hospitality in other cyclists' homes. Write to Bicycle Australia, PO Box 1047 Campbelltown NSW 2186 giving your name, address phone and your location, eg 10 km NE Ballarat PO. A donation to cover postage and photocopying would also be appreciated.

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COMPETITIVE EVENTS

SEPTEMBER

Sunday 11 Whitehorse Bush Triathlon. An exciting event for all standards of competitor held in magnificent bush surrounds. Staged by Whitehorse Canoe club Inc, Melbourne, and sponsored by Subaru Australia and Paddy Pallin. Event comprises 30 km mountain road cycling, 8 km cross country running and 15 km canoeing in the scenic Barkly and Macalister valleys near Licola Victoria. Mens and womens classifications in teams of 2-6 persons. Quality prizes and great fun racing. Entry forms from Victorian Subaru dealers, Paddy Pallin stores or WCC. Contact Jim Bland (03) 211 3610 or John Good (03) 489 2130.

OCTOBER

16 - 29. Commonwealth Bank Bicentennial Cycle Classic One hundred and twenty cyclists will ride between Brisbane and Melbourne via Sydney and Canberra on the world's biggest amateur cycling race. Watch this magazine for details, preview and colour coverage. Promoted by Ozwide Sports Promotions (02) 570 3855.

NOVEMBER

5-6 AMBA Mountain Bike National Championships. A week end of exciting MTB events for all ages. Events include: Open Down Hill, Open Hill Climb, Time Trial, Open Observed Trials and Enduro. The National Mountain Bike Champ will be the Expert Enduro winner. For entry forms write to Australian Mountain Bike Association, PO Box N25 Grosvenor Pl, Sydney NSW 2000. Contact Martin Whiteley (02) 27 2977.

CLUB CONTACTS

The Australian Cycling Federation and the state cycling federations will direct you to a club in your area if you want to get involved in bicycle road or track racing. Phone numbers and contacts for each state are: **NSW** Margaret Balmer (02) 241 1870; **VIC** Ruth Birznies (03) 328 4391; **QLD** Mike Victor (07) 390 1489; **WA** Mike Poyner (09) 384 4130; **SA** Bruce Quinn (08) 381 2398; **TAS** Joy Bestwick (003) 31 2712; **NT** Shirley Davis (089) 208 798.

Riders wishing to take out a professional licence should contact the National Secretary of the Australian Professional Cycling Council, Reg Marriner, PO Box 329 Torquay VIC 3228 Phone (052) 61 4067.

Mountain bike enthusiasts interested in contacting a local MTB club should contact the Australian Mountain Bike Association (02) 27 2977 AH (02) 92 1922.

NON COMPETITIVE EVENTS

JUNE - DECEMBER

Bicycle Australia in '88. Bicycle Australia's major rides programme for the Bicentennial year to celebrate the first century of cycling in this country. Riders may ride all or part of the 10,400 km route around the coast from Cape York to Perth. Contact Bicycle Australia for details on (046) 27 2186. Departure dates as follows: August 2 Rockhampton to Brisbane, vehicle supported 12 days; August 5 Brisbane to Sydney, self contained 19 days; August 16 Brisbane to Sydney vehicle supported 19 days; August 27 Sydney to Canberra, self contained 4 days; September 2 Canberra to Melbourne self con-



tained 17 days; September 7 Sydney to Canberra, vehicle supported 4 days; September 13 Canberra to Melbourne, vehicle supported 17 days; September 21 Devonport-Hobart Loop, self contained 19 days; October 2 Devonport-Hobart Loop, vehicle supported 19 days; October 13 Melbourne to Adelaide, self contained 15 days; October 23 Melbourne to Adelaide, vehicle supported 15 days; October 29 Adelaide to Norseman, self contained 22 days; November 9 Adelaide to Norseman, vehicle supported 22 days; November 21 Norseman to Perth, self contained 18 days; December 2 Norseman to Perth, vehicle supported 18 days.

SEPTEMBER

Friday 9 - Sunday 11 Bike Expo 88. Bike Expo is back in Melbourne this year with all the latest in the bicycle world. Royal Exhibition Building, Melbourne - 10am to 9 pm daily (closes at 5 pm on Sunday). Fashion parades, prizes entertainment.

OCTOBER

Saturday 1 to Monday 3. The fifth Four Rivers Ride. Bicycle Australia's tour of the Hunter Valley region. Sag wagon for luggage, evening meals and breakfast provided and hall accommodation. Contact (046) 27 2186 for details.

Sunday 16 to Sunday 23. NSW bicycle Week. Full details from the Bicycle Institute: (02) 212 5628.

Sunday 16 Green Valley Twin Century. Sydney's longest running bicycle fitness event. Test your endurance or basic level of fitness on 50, 100, 160 and 200 km courses over mostly level terrain in the western suburbs. Contact the Bicycle Institute of NSW (02) 212 5628.

23 October. Sydney Spring Cycle. The Bicycle Institute's annual bicycle bash starts in the city and takes riders on a splendid run out to Parramatta Park via the Harbour Bridge and Lane Cove National Park. Entry fee. Services and full back up provided. Contact the Bicycle Institute (02) 212 5628.

Saturday 29 to Saturday November 12 Burston & Stokes Centenary Penny Farthing Ride Melbourne to Sydney. This ride of approximately 100 riders on vintage and veteran cycles will commemorate the epic ride via Gundagai, Bathurst and Katoomba. Entry is opened to riders with pre 1915 cycles or later special interest bikes. Organised by Bicycle Victoria and the Vintage Cycle Club of Victoria. Contact (03) 650 2334.

NOVEMBER

Saturday 5 Knox Bicycle Touring Club's Hard Hundred. This year the route runs from Bayswater through Lilydale to Warburton (for 100 km riders) and to the Upper Yarra Dam (for 100 mile riders). Entry forms and information can be obtained by ringing (03) 728 3180 or (03) 754 4069.

Sunday 20. The seventh annual Sydney to the 'Gong Bicycle Ride. Australia's big one-day fun and fitness ride between Sydney's Belmore Park and Belmore Basin in the City of Wollongong. 87 kilometres of well supported fun complete with entertainment. Entry forms from bike shops during September. See details elsewhere in this magazine.

Saturday 26 to Saturday 10 December. The Australian Bicentennial Caltex Bike Ride. This year to celebrate the Bicentenary cyclists will ride en mass from Melbourne to Sydney. Full support. Organised by Australian Bicycle Events Pty Ltd. Enquiries: (059) 78 6000 or (02) 281 4554.

DECEMBER

Saturday 3 to Sunday 11 Great Victorian Bike Ride A nine day cycling extravaganza from Swan Hill to Melbourne. Organisers take care of everything from entertainment to vehicles for your luggage. Camping, meals and full medical and mechanical support provided. Organised by Bicycle Victoria (Bicycle Institute of Vic.) Contact (03) 650 2334 for entry forms and prices.

CLUB CONTACTS

These clubs regularly run rides in their cities and welcome new comers. Some even publish touring calendars listing forthcoming rides. Contact them for details.

Armidale Community Cyclists (067) 72 8951. **Audax Australia** (03) 435 4437 (02) 608 1125. **Bathurst** Bicycle Touring Group (063) 31 9459. **Bicycle Australia** (046) 27 2186 (after 9pm). **Brisbane** Bicycle Touring Association (07) 369 9326. **Brisbane** Mountain Bike riders interested in forming a club should contact Mike or Kelli on (07) 359 1244. **Canberra** Pedal Power ACT (062) 49 7167. **Geelong** Bicycle Touring Club (052) 96 234. **Illawarra** Touring Cyclists' Club (042) 83 6524. **Melbourne** Bicycle Touring Club (03) 818 4011. **Melbourne eastern suburbs** - Knox Bicycle Touring Club (03) 754 4069. **Eastern** Bicycle Touring Club (03) 762 7928. **Victorian Pedal Clubs** provide fun and training in bike handling skills for children of bicycle riding age. Call for information on a club near you: (03) 337 6399. **Newcastle** Cycleways Movement (049) 46 8298. **Bicycle Institute of New South Wales** (02) 212 5628. **South Australian** Touring Cyclists Association (08) 272 6406 (08) 388 8331. **Sydney** region bicycling clubs can be contacted through the Bicycle Institute of NSW (02) 212 5628. **Tandem** Club of Australia (03) 241 4453. **Cycle Touring Association of West Australia** (09) 330 3659. **Darwin** Huffers & Puffers (089) 81 2141. **Wagga** Bicycle Touring Group (069) 21 6787. **Vintage Cycle clubs** Vintage Cycle Club of Victoria (03) 527 5759. **Southern Veterans** (Sydney Vintage Cycle Club) (02) 587 8017.

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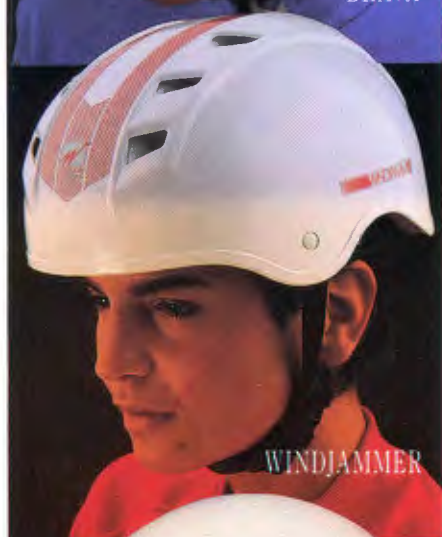
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BRAVA



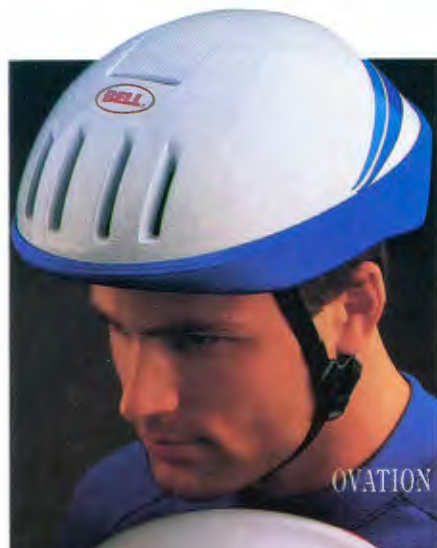
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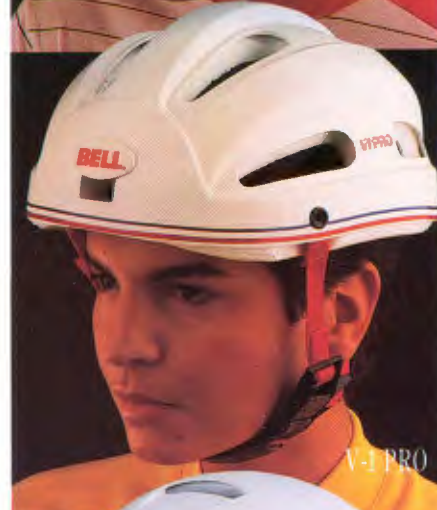
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