

## WOMEN IN THE EARLY AUSTRALIAN AUTOMOTIVE INDUSTRY: A SURVEY

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This survey of current research into the Australian automobile industry focuses on the ways in which women experienced the new technologies of speed and mobility in the early decades of the twentieth century. It is organised into three themes: women as drivers and mechanics, their opportunities as production workers, and as designers and engineers.



Women were already familiar with the independence afforded by the bicycle in the late nineteenth century and turned their attention to the automobile when it appeared around 1900. They embraced the new technology primarily as drivers and, to a lesser degree, mechanics and in doing so contributed significantly to the enterprises of nation-building in the early modern period. As Graeme Davison observed, the motorcar:

promised a new era of female independence although... the costs and hazards of motoring restricted it to a minority of well-to-do adventurers. The motoriste, as she sometimes called herself, was a figure of self-conscious emancipation, whose mechanical enthusiasm, zest for speed and power, and sometimes mannish dress, set her apart from her more conventional sisters.<sup>1</sup>

Current research suggests that women's participation in the production of cars did not commence until after the establishment of the major foreign-owned companies such as General Motors-Holden (GM-H) and Ford, particularly after the mobilisation of female labour during World War II. And while research in the area is as yet rudimentary, it appears that Australian women's contribution to automobile design and engineering took several more decades to evolve.

### Drivers, adventurers and mechanics

Of the three areas treated here the most comprehensive research has been carried out in the area of women's mobility, particularly their engagement with the automobile as drivers and mechanics. Australian women were early participants in this global phenomenon as Australia had begun to develop a local auto industry in the 1890s and had established car clubs and motorsport fixtures by the beginning of the twentieth century. In 1904 Florence Thomson, wife of Ben Thomson, a South Australian dentist, drove from Adelaide to Melbourne (approximately 725km) in eight days in a 5hp Beeston Humberette 'dressed for the part in leather overalls, peaked cap, ear-flaps, mask, and goggles'.<sup>2</sup> Her husband was the first person to undertake this drive in 1903, the same year Florence entered the Opening Run at the Automobile and Motorcycling Club of South Australia meet. She also participated in the far more challenging Dunlop Reliability Trial in 1905, from Sydney to Melbourne, in a 6 hp Wolseley and was enthusiastically cheered along the way. Her feat, which might have been a long-distance world record for a women driver at

the time, was recorded in Algernon Darge's extensive photographic survey of the race.<sup>3</sup> By 1914 women were such enthusiastic motorists that Margaret Allen could report in *The Australian Motorist*:

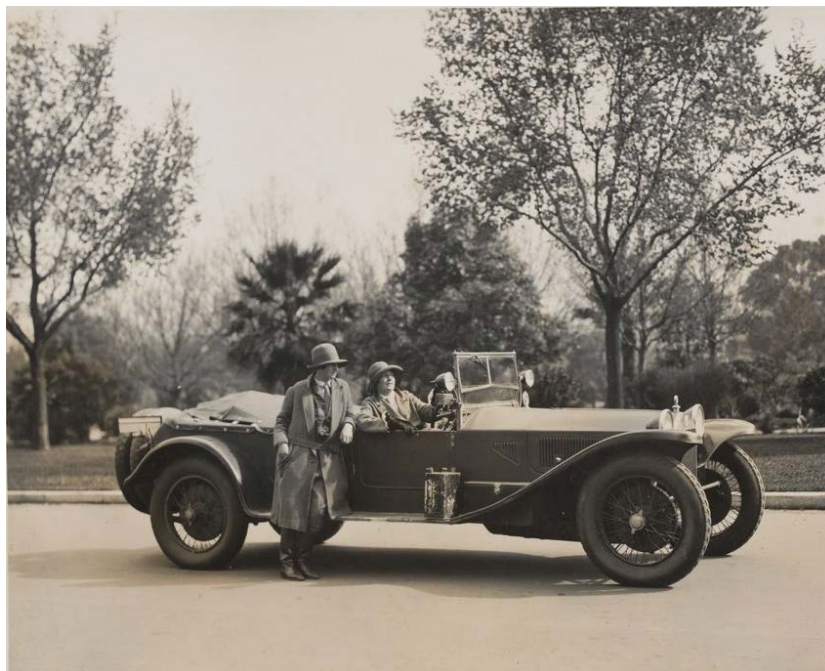
a motor car is really preferable to a husband in many ways... it is more manageable and is such a delightful companion and form of amusement. If you take care of it it remains true to you and responds to your every wish and whim.<sup>4</sup>

Kimberley Webber points out that by this time Allen 'had been her father's chauffeuse for two-and-a-half-years and had driven over 2000 miles in her Delauney Belleville'.<sup>5</sup> Her father gave her a Detroit Electric car in 1915, which enabled some of the freedom and independence she wanted. But it was too safe. Allen, like other women at the time, preferred something faster and more dashing such as the Studebaker which became her next car.<sup>6</sup>

It was from among the ranks of Victoria's women motoring enthusiasts that the RACV drew twenty-five of its most regular drivers for the World War 1 Volunteer Transport Unit, otherwise known as the Volunteer Motor Corps. The RACV and the Red Cross both organised volunteers to transport wounded soldiers in their motor vehicles, leading to a certain amount of rivalry as to whose group was to meet which ship.<sup>7</sup> One of the RACV's drivers was Mrs Cox of Parkville 'a motoriste of wide and long experience' who had been driving 'ever since motoring became the fashion in Australia'. She regularly responded to the summons to meet the hospital ships in her brown Talbot to transport wounded servicemen.<sup>8</sup>

After the war, women became more visible in Australia's rapidly developing motor racing scene at endurance trials and on the track. For example, in 1921 Miss Braithwaite completed the difficult 1000-mile Alpine Trail organised by the RACV in one of the first Citroëns to arrive in Australia,<sup>9</sup> and Vida Jones, who ran a financially successful brewing business with her husband in Lithgow, NSW, became a highly skilled and competitive racer and touring driver. During the late 1920s and early 1930s she took part in country reliability trials, time trials, and was a regular speedway racer in Sydney in her supercharged 1750 Alfa Romeo. She also owned a Hyper Lea-Francis that she campaigned with other drivers.<sup>10</sup> Jones stopped racing when her husband died in 1933 by which time she had become something of a legendary figure. Molly Turner Shaw, a

Mrs Gordon Simpson and Joan Richmond sitting in Richmond's 3 litre GP Ballot racer in July 1934 Brooklands Museum Collection, courtesy Silodrome



Melbourne architect, raced in a stripped down Austin 7, a favourite on the Melbourne racetracks in the 1920s, and in 1932 'appeared daringly togged-out in trousers and goggles when acting as a mechanic at the Australian Grand Prix at Gowes.'<sup>11</sup>

Georgine Clarsen's important 2008 study *Eat My Dust: Early Women Motorists* showed how women across the world embraced automobile technology as mechanics and taxi drivers, long-distance adventurers and political activists.<sup>12</sup> She records the journeys of three pioneering groups of women who crossed Australia in the mid to late 1920s: Marion Bell and her young daughter; Gladys Sanford and Stella Christie, and, Jean Robertson and Kathleen Howell. In October 1925 Marion Bell and her 11-year-old daughter left Perth in an Oldsmobile Six on a well-publicised trip that headed north to Port Hedland, Broome and Katherine before turning south east down to Brisbane and Melbourne, then back to Perth via Adelaide by April 1926. Between March and July 1927, the redoubtable Gladys Sandford left Sydney, and drove all the way to Perth, back to Adelaide then up to Darwin and back to Sydney. She had driven 16,093km 'and undertaken running repairs, including re-assembling the engine. On the one occasion she needed help, she short-circuited the transcontinental telegraph-line to gain the aid of technicians'.<sup>13</sup> In 1925 Jean Robertson teamed up with Kathleen Howell, a former school friend, and set a new record for the Perth to Adelaide trip of two days and ten hours in a Lancia Lambda tourer, racing the transcontinental train.<sup>14</sup> Other trips across the continent followed during which these women 'created some of Australia's earliest outback road maps for Shell in exchange for fuel'.<sup>15</sup>

In 1931, Robertson and Howell joined Joan Richmond and took the long-distance motor journey



to another level when they set out for Europe driving stock Rileys, having applied to enter the Monte Carlo rally. Richmond had driven a Citroën at trials and speed events from 1926 and in a Riley Brooklands was placed fifth in the 1931 Australian Grand Prix at Phillip Island. As the *Brisbane Courier* noted, the Australian team comprised three very accomplished drivers: 'Miss Jean Robertson and Miss Kathleen Howell, holders of the present Perth-Adelaide record, and two of the most experienced overland motorists in the Commonwealth, Mrs Charles Coldham, of Toorak, and Miss Joan Richmond, the well-known track racing motorist'.<sup>16</sup> Several months later, at Monte Carlo, they 'put up a wonderful performance, all three cars finishing, a feat seldom accomplished with three perfectly stock machines'.<sup>17</sup> They reached England in February 1932 when Victor Riley offered Richmond a drive with Elsie Wisdom in the 1000-mile race at Brooklands. 'They drove a Riley Brooklands 9 at an average speed of around 90 mph for the best part of twelve hours, recovering from a spin and other mishaps. The win, in one of the longest races held at Brooklands, was rightly celebrated'.<sup>18</sup>



**This page**

**Top left**

On the Road to Oodnadatta, South Australia, 1927. State Library of Victoria, Melbourne. Photographer: Jean Beatson

**Top right**

Kathleen Howell (presumed) squatting down and putting lengths of matting under front wheels of car, 1927. State Library of Victoria, Melbourne. Photographer: Jean Beatson



**Bottom left**

Elsie Wisdom and Joan Richmond, July 1932. Brooklands Museum Collection, courtesy Silodrome

**Bottom right**

These three MGCs were driven by the so-called 'Dancing Daughters' at Le Mans in 1935. The drivers were Margaret Allen and Colleen Eaton; Doreen Evans and Barbara Skinner; Joan Richmond and Joan Simpson. Brooklands Museum Collection, courtesy Silodrome

**Opposite page**

**Top**

Jean Robertson and Kathleen Howell before setting out on Perth to Adelaide trip. State Library of Victoria, Melbourne

**Bottom**

Pam Ingram with her Austin Healey Sprite in 1962. Ingram raced at Calder and Sandown Park in her specially prepared Austin Healey and also in an Elfin Sports. Lexine Anastasios Collection

Indeed for the next eight years Richmond

competed throughout Europe in many makes of car with great success. Riley, Singer, Triumph, MG, HRG, AC, Ballot, and Fiat to name a few. She competed in seven Monte Carlo Rallies, also RAC Rallies, Rallies of the Alps, and on road and hill climb circuits such as Brooklands, Le Mans, Donington, Shelsley Walsh and many more.<sup>19</sup>

Richmond abandoned racing during the war but not before she had established her reputation as Australia's first professional racing driver.

Clarsen argues that the transcontinental journeys undertaken between the wars by these women contributed to Australia's emerging national identity. Driving around the continent was seen as a nation binding activity, bringing the states together and taking possession of the country (Aboriginal ownership being completely discounted). The media's fascination with female drivers criss-crossing the continent also reflected a desire of the new nation to appear civilised. Adventurous women represented the modernity of a young and forward nation in the 1920s as long as the media was allowed to feminise them to some degree.<sup>20</sup>

While the media tended to celebrate the exploits of women motorists in the interwar years, the situation changed somewhat after World War II, as can be seen in the coverage of the Redex durability trials which ran from 1953 to 1955.<sup>21</sup> The trials were not professional races but a series of performance stages that circumnavigated the continent over 6,500 miles (10,460km) and were celebrated as more exacting (and exciting) than the famous Monte Carlo rally in Europe.<sup>22</sup> The Redex trials attracted both professional teams supported by commercial interests and also private motorists 'driving their precious family car on a strictly limited budget'.<sup>23</sup> As Clarsen notes, this broad participation was a key to their success, but so was their 'barely controlled anarchy', vividly captured in the extensive newspaper reportage and on film. Clarsen argues that 'the trials unfolded as a coming-of-age story, a narrative of post-war optimism and abundance, in which Australia was finally to inherit its own (mini) industrial revolution'.<sup>24</sup>

However, the media liked to present a masculine ideal of the drivers and the 'Redex trials worked towards defining Australian motoring as a hyper-



Trim department at Holden Motor Body Builders, Woodville, South Australia, c1928.  
N Darwin Collection

masculine enterprise in which physical endurance, strength and a bush mechanic's prowess were highly valued qualities'.<sup>25</sup> Therefore those few women who chose to enter the trials did so against this dominant media narrative. But enter they did. In 1953 nine women lined up against 500 men for the Redex competition. Some teamed up with men, such as experienced trial driver Marie Higgs who entered as navigator with Bill McLachlan and thought they had a chance of winning; some joined forces with their husbands, and from Sydney came the all-women team, Lois Rowe, Nola Rowe and Diana Brunton.<sup>26</sup> The following year the *Australian Women's Weekly* entered the all-woman team of Helen Frizell, Enid Nunn and Nan Broughton in a Humber Super Snipe, the last two women had driven ambulances during the war.<sup>27</sup> There were also the so-called 'granny' entrants Charlotte Hayes (in a Volkswagen) and Winifred Conway. Driving an Austin in the 1953 trial, 'Granny Conway', a 63-year-old widow from Rose Bay, was initially much derided, but won over the country with her no nonsense, calm and articulate approach. She simply refused to accept she could not race and then did it on her own terms, rejecting the aggressive and competitive nature of some male contestants.<sup>28</sup>

Women also competed in other arenas. Diana Davison Gaze raced an MG TC and ssk Mercedes at the Rob Roy Hillclimb, holding the Ladies TC record for some time and the Ladies record in the Mercedes in 1948.<sup>29</sup> 'Geordie' Anderson, the wife of Cyril Anderson who held the Queensland Jaguar agency at Westco Motors, won the first 24 hour race at Mt Druitt with Bill Pitt in a Jaguar XK120 in 1954 and finished 7th behind 6 Volkswagens in the 1957 Mobilgas Trial around Australia in a Jaguar Mark VIII.<sup>30</sup> Sydney motorcycle racer Edna Wells took on visiting Irish champion speedcar racer, 'Flying' Fay Taylour, in a series of exhibition races in Sydney in October 1952. Driving a Ford special speedcar, Wells won two out of the three races in her first outing in a midget (these small racing cars are called speedcars in Australia).<sup>31</sup> In fact women continued to compete on the racetrack and in rallies for the remainder of the century, although not in large numbers.

While it was normal to drive with a mechanic in the early years of racing, women often became adept at keeping their cars in working order, as Gladys Sandford demonstrated on her 1927 transcontinental journey. Ruby Watson of West Melbourne joined the Volunteer Motor Corps during World War I; she had apparently driven since she was a schoolgirl and



was very experienced. She was also described at the time as a capable mechanic, 'besides being a cool hand at the wheel'.<sup>32</sup> Alice Anderson took this technical ability a step further when she established a garage in Kew in 1919 and gained the distinction of 'being the first woman in Melbourne to conduct a motor garage for the public, and in that sphere [she] achieved much success'.<sup>33</sup> Miss Anderson's Motor Service, offered 'petrol sales, vehicle repairs, a driving school, a 24-hour chauffeur service, either with the garage's cars or the client's vehicles stored on the premises' and driving classes and mechanical instruction classes for women.<sup>34</sup> Jean Robertson was one of her pupils. 'For an extra fee women could work alongside mechanics on their own cars; a programme enabled women to work as pupil-mechanics to learn the mechanical side of motoring'.<sup>35</sup> The all-woman garage employed eight drivers and mechanics in the early 1920s who, during one day, might be 'serving petrol, washing and greasing cars, and handling a Rolls Royce or Stanley Steamer, to driving customers to the races'.<sup>36</sup> Anderson was a popular driver during the war and published her ideas on women as career mechanics in *Woman's World*. She also patented a 'Get Out and Get Under Trolley' for ease of access when working on cars.<sup>37</sup> When she died in 1926 the garage was

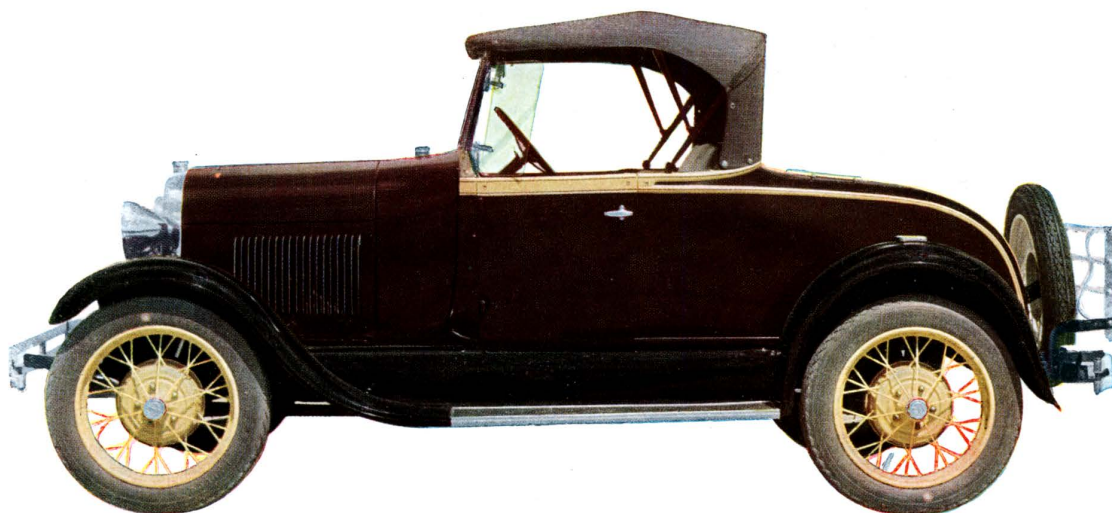
taken in hand by her friend Ethel Bage and while less successful 'was still operating in 1942 when the last of the staff left to join the women's services in World War II'.<sup>38</sup>

Anderson's story seems to have been unusual in any context although Clarsen recounts the case of Scottish woman Dorothee Pullinger who persuaded her father to open up his munitions factory in Tongland, south-west Scotland to train women as engineers and machinists during World War I.<sup>39</sup> After the war the factory was given over to car production and Pullinger and her team of women produced the first car for female consumers – the Galloway - which went into production between 1920 and 1923, after which the plant was forced to close and join its parent company in Dumfries.

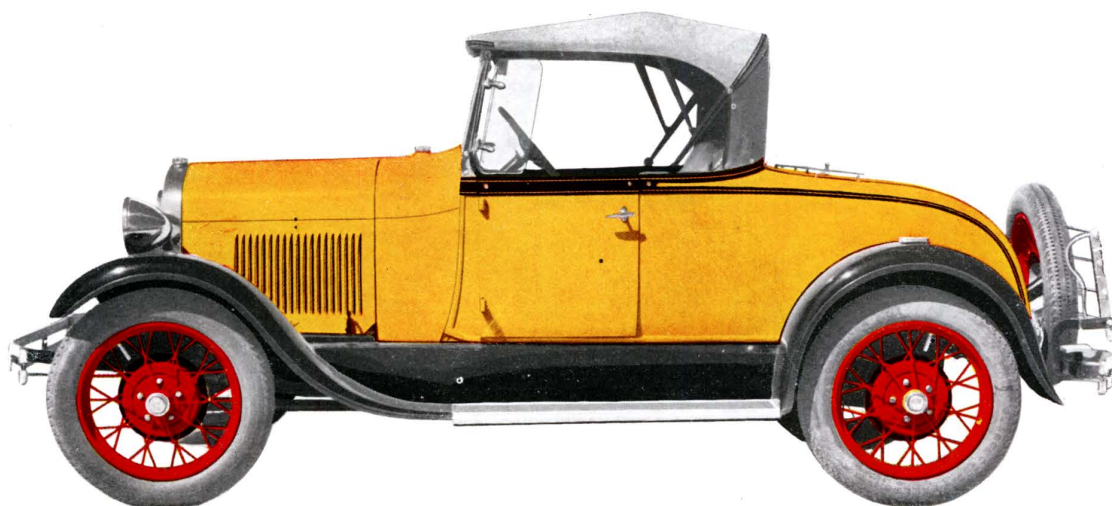
### The production line

If women's enjoyment of greater freedom and mobility as car drivers has been relatively well documented, their participation in the car industry as production workers is far less well understood for this early period. To date no evidence has come to light of women working in the early body building shops, although admittedly research into this area of our automobile history is not well developed. It is probable that their entry onto the shop floor came with mechanised automobile production. Certainly it appears that by 1928 women formed the staff of the trim shop at Holden, Woodville, South Australia, and a careful study of their conditions of employment and the type of work they were engaged in would be a valuable addition to our understanding of the early auto industry and women's work in Australia. Robert Tierney's research into state intervention, managerial control and trade union organisation in the auto industry has revealed that 'between July and December 1939 Woodville employed on average 168 women, comprising 5.1 per cent of the plant's total workforce of 3,268 persons'. They worked in two areas – the trim fabrication shop and the springs shop, undertaking the 'female' tasks of sewing, pasting, pleat stuffing and cushion and squab springs assembly.<sup>40</sup> To have built up these numbers by 1939 suggests that the women recruited to Woodville during the 1920s stayed on, or returned after the Depression; presumably GM-H, as Holden's had become, was seen as offering stable work.

During World War II women moved into the industry in relatively large numbers stimulated by active government measures. By July 1942 'Woodville employed 1,330 women, working as riveters, press machinists, third-class machinists, bench assemblers. . . touch-up painters, rackers-up as well as sewers, springs assemblers etc.' that is, in numerous roles traditionally undertaken by men.<sup>41</sup> The women's wages were set by the Women's



*SPORTS ROADSTER with body in Tanuara and  
mouldings and centre of rear deck in Virginia Cream.  
Fenders are black, wheels Virginia Cream.*



*SPORTS ROADSTER with body in Empress Yellow  
and with black mouldings, striped with Virginia Cream.  
Fenders are black, louvres on the bonnet have a black  
line and wheels are Orinoco Vermillion.*

TWO EXAMPLES OF FORD CARS WITH COLOR SCHEMES CHOSEN BY  
A GROUP OF AUSTRALIAN ARTISTS.

Plate 68.

Employment Bill enacted by the Curtin Government in 1942 at 90% of the wages of men, although not all the plants paid the full amount. From time to time men went on strike in protest at women doing their work. For example there was unrest at one company where cores for motor cylinders were traditionally made by skilled male workers who took from one to three hours. When these were handed over to women and boys, they were produced in half the time. Women were also employed by the GM-H Woodville and Beaufort plants to work on the construction of fighter bombers and other arms production. This employment was not guaranteed after the war and many women were sacked to make way for returned ex-servicemen. When they re-entered the industry it was into traditionally, lower paid 'female' roles.<sup>42</sup> In 1951 Woodville employed 149 women (fewer than in the 1930s) primarily in the trim and springs departments while in 1964 there were only 548 women employed in the entire Victorian vehicle industry mainly as machinists, janitors, canteen attendants and other relatively unskilled work. Tierney argues that 'gentlemen's agreements' between management, right-wing trade union organisations and conservative male enclaves endeavoured to exclude or reduce women's participation in the workforce after the war.<sup>43</sup> In consequence, during the 1960s the issues of equal pay for women and the right of women to work in traditionally male roles were battled out in unions and automotive plants across Victoria. There is a certain irony here as American automotive historian Margaret Walsh has pointed out, in that while men controlled the production of cars, increasing numbers of women after the war used them to enhance their social freedoms as consumers and drivers.<sup>44</sup>

### Automobile design

While Tierney has provided an outline of women's participation on the production line, research into Australian women's engagement with the auto industry as designers and engineers has barely commenced, unsurprising perhaps as Australian automobile design is a nascent field of research. Car design in Australia emerged from the motor body building trades and skills, which flourished in the inter-war period. John Laurent notes that in 1940, when GM-H and Ford were well entrenched, there were 215 motor body building plants in Australia which had one of the highest levels of car ownership in the world.<sup>45</sup> While there is no record to date of any women working in these independent body shops, by the end of the 1920s two women suddenly emerge as colour consultants to the major companies. By this time colour had become an important point of market differentiation between the competing American companies GM and Ford, the former, under the direction of Harley Earl, strategically and successfully using colour and

annual model turnover to challenge the dominance of Ford's phenomenally successful black Model T.<sup>46</sup> Responding to this challenge, in 1929 Ford Australia engaged advertising entrepreneur George Patterson, who had studied 'scientific management' and marketing in New York, to fight back. Patterson's campaign revolved around colour and included attractive brochures on 'Colour Harmony' which described how well-known artists George Lambert, Thea Proctor and Sydney Ure Smith had selected colour combinations for a range of Ford cars. Patterson and Ford recognised both the significance of colour in product design and the usefulness of collaborations between artists and industry, ideas that were promulgated in advanced design circles such as the Bauhaus during the 1920s. Patterson published an explanatory article in the December 1929 issue of *Art in Australia*:

The fight for public favour has forced manufacturers to revolutionise their methods of production and also the presentation of their products. So long as public demand could be satisfied by the engineer and factory operative, the manufacturer had the situation well in hand. But immediately the public demanded more artistic form and brighter appearance, the industrialist was faced with a problem which could not be solved within his own organisation. Thus he was forced to seek the help of sculptors to determine form, and called upon celebrated artists to decide the vexed question of colour. . .

Feeling that the time had come to try and secure colour combinations that were both artistic and in harmony with Australian life, the Ford Company of Australia Pty. Ltd. decided to enlist the help of leading Australian artists. It sought the advice of George W. Lambert, A.R.A., Sydney Ure Smith, and Miss Thea Proctor, who, for several months, collaborated with factory experts and paint manufacturers in determining a wide range of colour combinations applicable to the various types of Ford cars.<sup>47</sup>

Meanwhile in Adelaide, home of Holden's coach builders, the *Register* applauded Proctor's involvement in the project arguing that 'modern woman, slim, quick and vivid, must have a car to match her personality. Old-fashioned colour schemes go overboard'; modern art comes to 'the rescue with new lines and colours'.<sup>48</sup> The *Register* went on to discuss South Australia's own Barbara Sandford, who was 'making a study of colour harmony in cars' at Woodville:

where she chooses materials, fittings and carpets. In short, she sees to it that the finished product looks entirely satisfactory from a woman's point of view. She, too, likes bright colours for sports cars.<sup>49</sup>

1929 improved Ford roadsters; colours selected by Thea Proctor, George Lambert and Sydney Ure Smith, for the Ford Motor Company of Australia, *Art in Australia*, no 30, December 1929





Sandford worked for Holden's on the 1930 Chevrolet and Buick models, coordinating the exterior paintwork and interior upholstery, a combination of responsibilities that now goes under the heading of 'colour and trim'. In this she appears to have been a pioneer and would have worked with the female staff of the trim department as well as male staff of the engineering department. After this bright flash, women disappear from the record as design advocates for many decades although it is possible that they had some input into automotive design studios during the war. Norm Darwin's history of Holden includes a photograph of two women styling clay models and another of women working in the engineering studio at Woodville in the war years.<sup>50</sup> After the war as we have seen they continued to work in the trim department but not as design advisors, although in 1953 GM-H replicated Ford's 1929 strategy and commissioned Sydney interior design consultant Mary White to coordinate colour schemes for the Holden.<sup>51</sup> She apparently:

started the vogue for pink and blue cars. [She] painted the first model a shell pink. The interior was a symphony in pale grey, with foam rubber seats upholstered in Italian tapestry. . . Her next colour scheme was pale blue with the interior upholstery done in off-white leather, the seats covered in dull blue cloth, and Chinese lacquer-red cushions.<sup>52</sup>

Whether GM-H's employment of women in the design studio went any further than this is not

known. According to Penny Sparke, Ford and GM in America started to employ women as interior stylists in the 1940 and 1950s; Ford had two women in 1945 and six by 1947 while GM had nine women in their studios by 1958 where 'their visualizing talents were confined to car interiors, colours, and accessories'.<sup>53</sup> One of these women was Suzanne Vanderbilt, an industrial designer who specialised in styling the interiors of GM's luxury cars, such as the 1958 Cadillac Baroness, for a female market.

While the embedded gender inequality of the Australian workplace was an important factor in inhibiting women's participation in all aspects of the auto industry so was the foreign ownership of these concerns. It was not until the late 1960s that Australian men had a major input into the design of the cars they produced at GM-H, Ford Australia and Chrysler Australia; that area being closely controlled by their American parent companies which, like their Australian counterparts, fostered a very male culture.<sup>54</sup>

What this survey indicates is that in the first half of the twentieth century women engaged with the Australian automotive industry and car culture in a number of ways and with varying degrees of success. They embraced the new technologies afforded by the motorcar as drivers and consumers and made it their own. Women could achieve this because owning and driving cars was a private matter; rules had not been invented to prevent them from enjoying the possibilities and advantages of this new



**This page**  
Artists work on the Australian car in Holden's Fisherman's Bend Engineering studio. In the background can be seen two women, a tracer and an airbrush artist.  
N Darwin Collection

**Opposite page**  
Modellers producing 1/8" scale model of the proposed Holden car at the Fisherman's Bend Engineering studio, c1946.  
N Darwin Collection

technology. As long as they could afford to drive or own a car, or their parents or husband could, they were free to exercise their ambitions, and this remained true throughout the century.

Participation in the manufacturing sector of the automobile industry appears to have been possible for women at Holden's in the 1920s and GM-H in the following decades if not at other plants, but on what conditions is not known. When women did enter the automotive plants in significant numbers during World War II to undertake work that had traditionally been carried out by men, they did not receive equal pay for that work, and in the post-war period their employment was set against a discriminatory organisational and managerial culture that resisted offering them 'men's' work or equal pay.

While research on women designers and engineers in the Australian auto industry is as yet rudimentary it appears that it was not until the late twentieth century that their numbers became noticeable in these areas of production, more or less replicating the European experience.<sup>55</sup> However, further research may reveal earlier examples, particularly at Woodville.

In terms of Australian design history this survey has indicated that published research is limited in the areas of women as industrial designers in the auto industry, and automotive design as an historical subject. To date automobile design has remained outside the purview of scholarly research in Australia, which admittedly does not have a great

track record in industrial design research generally. An exception is provided by Michael Bogle who commented on both 'colour harmony' and post-war automobile design in his 1998 history of Australian design and also recognised the fact that Australia's first industrial designers were to be found in the motor industry.<sup>56</sup> Generally however it has been enthusiasts and historians outside the academy who have published the histories of GM-H, Ford, Chrysler and other manufacturers and marques in Australia although not from the point of view of design. Darwin's current research into the early history of Australian automotive design is the first in-depth study undertaken in this field of our industrial design history. Yet the industry has been a mainstay of Australian and particularly Victorian manufacturing for over a century, and has been far more important to the economy and the very formation of twentieth-century Australian culture than the products that usually form our canon of industrial design and figure in our research on Australian modernism. It will not be until we have a more sophisticated understanding of Australia's automotive design history that the place of women within it will be understood.

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Endnotes

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