

Chapter 1

The Coventry Motor-Car Industry: Parameters and Significance

The foundations of British motor-vehicle production were laid in Coventry in the 1890s as the city moved away from its traditional industries of textiles and watchmaking towards the manufacture of cars and their components. Daimler, Rover, Standard, Siddeley and Riley are among the famous marques associated with Coventry from its early car-making days and, although competition soon arrived from other parts of the country, for a short time the city represented in essence the British motor industry. Coventry's rapid industrial expansion in the late nineteenth and early twentieth centuries was also associated with electrical and aeronautical engineering, machine tools and artificial fibres, producing a cluster of enterprises based on relatively high levels of science and technology.

The reasons for Coventry's chequered experience during this period centre upon the replacement of the ailing crafts of silk weaving and watchmaking as the principal sources of income and employment by the new engineering products of cycles, motor vehicles and machine tools. By 1911 the vehicle and metal industries together absorbed just over 41 per cent of Coventry's occupied population, while watchmaking and silk weaving, which for most of the nineteenth century had dominated the labour market, accounted for less than 6 per cent of the total. These changes were accompanied by a rise in the scale and complexity of production. Although factory organisation was found in textiles and watchmaking, both industries relied heavily upon relatively small-scale enterprises. Many of the early cycle firms were also modest in their resources and output, but with the expansion of demand and greater capitalisation the industry became dominated by a number of very large firms such as Rudge Whitworth whose 2,700 employees in 1906 were responsible for the manufacture of 75,000 cycles.¹ By 1914 volume production had modified traditional work patterns, though in most areas, including motor vehicles, the specialised skills of the craftsman had not yet been superseded by the more routine activities of the assembly-line worker.

The social impact of Coventry's relatively late industrial revolution further illustrates the exceptional speed and magnitude of change. After a reversal in the 1860s, the earlier pattern of steady population growth reasserted itself. In 1901 the city's inhabitants numbered 69,978 but by 1911 the largest recorded decennial increase of 52 per cent had taken the total to 106,349. During the 1890s, inward migration became a significant factor in Coventry's demographic experience, but between 1901 and 1911 it emerged as the

dominant element with some 67 per cent of the population increase of that period being accounted for by immigration from outside Warwickshire. The nearby counties of Worcestershire and Northamptonshire were major contributors, though some people were attracted from more distant locations, including almost 3,000 from London.² One of the consequences of this phenomenon was that it helped to produce a relatively young population, which no doubt influenced other social trends, such as marriage and birth rates, both of which were above the national average in 1911.

The peak year of the cycle boom in 1896 brought a flood of immigrants to Coventry and an immediate housing crisis. According to the city's Medical Officer of Health, 'Houses could not be built fast enough to accommodate the inrush.'³ The city's electric tramway helped to ease the problem by facilitating the development of outlying areas, such as Foleshill, and by 1906 the building rate had improved substantially, reaching around 800 houses per annum compared with less than 200 a decade earlier. Nevertheless, the acceleration of population growth in the early twentieth century meant that Coventry's relatively small-scale building contractors found difficulty in keeping pace with the rising demand for inexpensive property, and one result of this was that many hundreds of workmen were obliged to lodge in the city during the week, returning home for Sundays. Although overcrowding remained a problem in 1914, it was largely confined to the central areas where it was exacerbated by the narrow medieval streets which restricted the ventilation and natural lighting of the houses. On the outskirts, to the north-east of the city, where most building work had been concentrated, relatively prosperous artisans rented or were purchasing accommodation which was officially regarded as of good standard. The 1890s saw a considerable increase in the provision of mortgages and between 1896 and 1914, for example, the total advances held by the Coventry Permanent Economic Building Society increased from £12,106 to £102,166.⁴ Yet, with the industrial expansion and population growth of the war years and beyond, inadequate supply remained a continuing feature of Coventry's housing market.

Similar difficulties plagued education as the schools bulged under the impact of a rapidly expanding child population. When the Local Education Authority assumed its responsibilities in 1903 it was already disadvantaged by the laxity of its predecessor, the Coventry School Board, which had been slow to respond to the new pressures, but the problem was compounded by the development of the peripheral areas where school building had not been designed to cope with the heavy demand which appeared after the turn of the century.⁵ Only three of the authority's thirteen elementary schools were said to be free from overcrowding in 1908 and by the outbreak of war the Board of Education estimated that some 28 per cent of Coventry children were handicapped in this way, with the area to the north of the city being a particular worry. Although the LEA was penalised for its overcrowded elementary provision, board officials recognised that serious efforts were being made to

rectify the deficiencies, and appreciated that Coventry's phenomenal growth rate rendered it virtually impossible to devise an effective school-building programme.⁶

Although the local authority was slow to respond to Coventry's housing shortage, important steps were taken to ameliorate other concerns in the decade before the First World War. Environmental health was gradually improved and by 1910 this was said to have contributed significantly to the city's declining death rate. Maternal and infant health care received particular attention, with the appointment in 1901 of a woman health visitor and in 1905 the introduction of a limited scheme of school medical inspection. Under pressure from the local branch of the Women's Co-operative Guild, Coventry was one of the first cities in Britain to establish an infant welfare clinic in 1915.⁷

Despite only a limited development of trade union organisation in the pre-war period, Coventry wages were generally good, certainly compared with rates of pay traditionally available in the textile industry.⁸ Incomes were vulnerable to periods of unemployment resulting from trade fluctuations and the seasonal nature of work in the cycle and motor industries, but the Medical Officer of Health's comment in 1910 that Coventry children were well nourished and that this was due to the city's commercial prosperity is indicative of a broad rise in living standards.⁹ The general work environment seems to have benefited from the structural changes in employment. It was reported in 1890 that in the new industries 'the artisan works under conditions more favourable to health than the watchmaker or weaver did'.¹⁰ Apart from Courtauld's viscose plant where employees could be obliged to work in an unpleasant and even dangerous atmosphere, factory conditions some twenty years later did not cause any serious concern. The new generation of Coventry workers were not only better paid than their predecessors, but in general by 1914 enjoyed substantially improved living and working conditions and, according to *The Times*, were soon to demonstrate a greater sense of industrial pride than could be found anywhere else in the country.¹¹

When representatives of the Reform League visited Coventry in 1868 they reported that 'Party feeling runs very high in the Borough, nearly every man being an active Politician.'¹² This was given a new twist from the 1880s by the city's accelerated economic development and the general spread of interest in socialist ideas. Traditional working-class support for the Liberal position was shaken by the commercial treaty with France in 1860 which was widely held responsible for the downfall of the silk ribbon industry, but by the early twentieth century support was growing for more radical politics reflected in the formation in 1902 of the Coventry Labour Representation Committee. Although the first election success arrived in 1905, it was not until 1937 that Labour gained control of the city council, though in the intervening period it came to exercise considerable influence over local affairs. The new business community also became involved in municipal politics and when George

Singer, the cycle and motor manufacturer, became mayor in 1891 his election was indicative of the growing dominance of the new economic order.

The crisis in the silk ribbon industry following the removal of tariff protection revealed the inability of Coventry producers to meet the challenge of Swiss and French manufacturers whose competitive prices and attractive designs enabled them to capture a major share of the British market.¹³ The advancement of factory production had been inhibited in Coventry by local craft traditions, while the unattractive economic climate after 1860 deterred businessmen from investing the capital required for modernisation. For a brief period in the late nineteenth century watchmaking became Coventry's principal source of employment, but eventually it, too, was eclipsed by foreign competition as American and Swiss firms, using mass-production techniques, came to monopolize the market for inexpensive timepieces, which was growing quickly in the 1870s.¹⁴

The cycle industry provided a timely, if fortuitous, solution to Coventry's economic predicament. The pioneering work of the Coventry Machinists Company, formed in 1869, laid the foundations of the British cycle industry. Apart from its technical and production achievements, the firm became the starting point for many of Coventry's leading cycle manufacturers, including George Singer and John and Thomas Bayliss. The origins of Coventry's economic and social transformation are varied and complex, but the growth of the cycle industry was enormously influential in the diversification of the industrial base, for it was the pivot of a development block incorporating machine tools and motor vehicles which underpinned the city's prosperity during the formative years of the new century.

Coventry's occupied population almost doubled during the interwar period, confirming the city's promise as one of Britain's most dynamic growth areas and contrasting sharply with the manifestations of industrial decline in many other parts of the country. Immigration continued to supplement the natural population increase, though by the 1920s migrants were drawn from more distant locations than earlier in the century, including substantial numbers from Wales, Scotland and the northern counties. In addition, it was claimed in 1929 that some 27,000 workers commuted daily to Coventry, mainly from Birmingham.¹⁵ Although job security continued to be threatened by trade and seasonal factors, the general economic expansion ensured that favourable employment prospects and relatively high wages remained a powerful attraction to labour. By 1939 Coventry's population stood at 220,000 compared with 136,000 in 1919, giving it the distinction of the fastest-growing city in Britain during this period.

The tension which accompanied rapid economic and social change was again apparent in housing and education. Demand for residential property remained high around the city's northern fringes where many of the major

engineering firms were situated, but new areas of growth like Stoke, which had developed swiftly during the First World War, placed additional strain upon the limited resources of the building industry. Construction increased steadily during the interwar years, aided in part by a more positive approach from the local authority, seen mainly in the form of municipal housing. Land was acquired at Radford in 1923 for the first corporation estate which by the late 1930s contained almost 2,500 houses, making it one of the most densely populated districts in the city. Coventry also enjoyed an exceptionally high rate of owner occupation. Between 1932 and 1938 over 18,000 privately financed houses were built in the city, dwarfing the public provision for that period.¹⁶ Yet the supply of both private and council housing was persistently outstripped by demand and employers complained frequently that this rendered it more difficult to attract suitable manpower to the city.

The provision of school buildings remained an issue throughout the interwar period and in 1938 one of His Majesty's Inspectors commented that 'the rapid growth and development of the City made the Public Elementary School accommodation problems bewilderingly complex.'¹⁷ However, increasingly, the problem of overcrowded schools spread from the elementary to the secondary sector fuelled by growing public interest in more advanced education as well as the continued upsurge in population. In 1925 the secondary allocation was about 1,400 places below the Board of Education's target and the real shortfall was probably far greater than this. The LEA responded by introducing a selective central school and a limited number of elementary 'higher tops', but plans for a major building initiative did not begin to take shape until the later 1930s when Stoke Park School was rebuilt and land was acquired for the construction of Caludon Castle Boys' School. Technical education experienced similar pressures as a growing number of employers and their workers came to appreciate the benefits of college-based training. In January 1933 some 3,000 technical students petitioned the local authority for improved training facilities but, although an impressive new college was opened in 1936, the additional accommodation quickly proved inadequate for by the end of the following year over thirty classes were forced to meet in neighbouring outposts, while enrolments in engineering had been suspended due to excess demand.¹⁸

In the interwar period Courtauld's expansion programmes and the diversification into new products by some old-established firms, including J. and J. Cash, helped to boost job prospects but could not prevent a further decline in the textile industry's share of total employment. The relative importance of the cycle industry, so important to Coventry's industrial regeneration in the 1890s, also diminished as the leading manufacturers turned to motor vehicles. By 1939 Standard and Rootes were among the 'big six' in the industry, while the engine division of the Morris organisation, the market

leader, was also Coventry based. Alfred Herbert dominated the local machine-tool industry, though Coventry Gauge and Tool, and Wickmans also enjoyed a national reputation. During the 1930s all three subsequently expanded their capacity and production in order to cope with bulging order books.

The emergence of the aeronautical engineering industry was related to Coventry's involvement in the First World War when several of the leading motor firms went over to the production of airframes, aero-engines or both. The Siddeley company is particularly important in this respect for, unlike other motor manufacturers, it continued to develop its aircraft production after 1918. This was because its highly successful fighter plane, the Puma, remained in demand until well into the 1920s, but also because John Siddeley believed that the market for both civil and military aircraft was likely to be an expanding and profitable one. The General Electric Company's links with Coventry may also be traced to the First World War when one of its subsidiaries opened a factory at Copsewood Grange for the production of magnetos. A new building was erected in 1920 for the manufacture of telephone equipment and by the end of the 1930s GEC was one of the city's largest employers and the basis of its profile within the electrical engineering industry.

Pre-war links were also maintained in the 1920s by the continuing increase in the size and complexity of the business unit and the virtual disappearance of the traditional workshops and toyshops of nineteenth-century Coventry. By 1939 Courtaulds and the principal motor car assemblers each employed around 5,000 workers, while in electrical engineering GEC and British Thompson Houston had a combined labour force of almost 10,000. Mergers and takeovers became commonplace, especially in the motor industry, while the structure of management followed the national trend in becoming more specialised and professional. With the greater capitalisation and the growth of subsidiary organisations, ownership and control continued to become more broadly dispersed. Additions to plant, the spread of new production methods and increases in output were other indications of Coventry's growing industrial maturity.¹⁹

Changes in the nature and scale of production, particularly the spread of assembly-line techniques, profoundly influenced working conditions, including occupational status, wage payments and the general pattern of the working day. Coventry's reputation in the 1920s and 1930s as a boom town derived in part from the relatively high wages paid to its skilled industrial labour force. Yet mass production and the opportunity to earn bonus payments conveyed particular benefits to unskilled and semi-skilled workers. Indeed, some skilled men deliberately chose production work in order to increase their weekly pay, so that in some respects skill counted for rather less in Coventry than in some other parts of the country. Within the context of a buoyant labour market, even the slow growth of trade unions among the unskilled could not seriously undermine their financial prospects.

The rise in real incomes was reflected in changing leisure pursuits. Although going to a club or pub for a drink and social engagement remained perhaps the major pastime of Coventry factory workers in the twentieth century, the interwar period witnessed the rise of the annual seaside holiday and the growing popularity of dance bands. Many of the best dance halls were provided by employers, and a number of firms saw the development of leisure facilities as a way of maintaining the support and co-operation of their employees. This may well have applied to George Singer when he established works cycling, cricket and football clubs, the latter forming the basis of what was to become Coventry City Football Club.²⁰ Works bands became common in the 1920s and 1930s, while Standard eventually even developed its own holiday camp. It has been noted that while participation in leisure activities in Coventry mirrored that of other large towns in the 1930s, the city was distinctive in the way that it catered for its skilled and semi-skilled workers. According to Crump, 'These people with good wages, had access to the leading sports and social clubs, with their new pavilions and refurbished ballrooms, to the super-cinemas and to commercial dance halls.'²¹

The expansion of Coventry's occupied population included a rise in the number of women workers, from 7,918 in 1901 to 23,183 in 1951. Although this was only a small increase in female employment as a percentage of the total workforce, it meant that in national terms Coventry remained a relatively good source of job opportunities for women. In 1951 women formed 37.9 per cent of Coventry's working population compared with a figure of 30.8 per cent for Britain as a whole. The trend of female employment mirrored the pattern of Coventry's industrial transition with a swing towards electronics and motor vehicles, though Courtaulds in artificial fibres and a declining number of firms in more traditional product areas continued to provide jobs for women in the textile industry. In addition, the growth of large-scale business enterprise together, perhaps, with tightness in the labour market, meant that by 1931 the proportion of women in clerical posts was some 50 per cent above the national level.²²

The nature of Coventry's industrial development was greatly influenced by the two world wars. In 1936 the city became closely involved in the rearmament programme when John Black and William Rootes, both from the motor industry, and Alfred Herbert met with Whitehall officials to plan the construction of shadow factories in anticipation of wartime requirements. The eventual volume production of military equipment reinforced Coventry's position as one of Britain's leading centres of modern engineering and left it poised for further rapid growth in the post-war era. This was encouraged by the incoming Labour government which by 1948 had approved plans for some 707,355 square feet of new factory space in the city. As before, this expansion brought a sharp rise in the size of Coventry's occupied population so that in the decade 1951 to 1961 the rate of growth far outstripped the national average. Innovations in production methods, high wages in selected industries and

multinational ownership were additional features of Coventry's industrial expansion.

Problems began to appear in the 1960s, however, as the growth in the labour force fell away and unemployment rose, reaching the exceptionally high level of 5.6 per cent in 1968. Growing local concern was demonstrated in that year by the convocation of a series of Lord Mayor's Conferences designed to examine the plight of the city's ailing economy. Yet the outlook deteriorated further in the 1970s as underlying weaknesses in the industrial fabric became more evident with additional business failures, vacant factory accommodation and a marked increase in redundancies, so that by 1980 unemployment exceeded the UK average. Between 1975 and 1982 the top fifteen employers in Coventry axed almost half of their combined labour force, with job losses by the end of the period averaging 520 a month. Coventry's industrial base was declining rapidly, a phenomenon rendered especially poignant by its contrast with the years of economic boom.²³

The Times noted in 1959 that Coventry's economy was highly dependent upon a relatively narrow range of metal engineering products. The pitfalls of this particular form of economic concentration became increasingly apparent during the next twenty years as the aircraft, motor-vehicle and machine-tool industries grappled with the vagaries of government policy and competition from firms which were often more innovative and efficient. Hawker Siddeley ceased production at Baginton in July 1965, and because of this and other rationalisation schemes 11,000 jobs disappeared from Coventry's aviation industry between 1962 and 1967. Although employment in motor vehicles continued to increase until the early 1970s, indications of the industry's problems in Coventry appeared earlier in the form of unprofitable production, a relatively modest share of the home market and a decline in the number of independent manufacturers. The injection of government finance was necessary to sustain the Chrysler assembly plant at Ryton before its sale to Peugeot of France in 1978, while British Leyland was rescued from collapse by being taken into public ownership. Between 1975 and 1982 BL shed 19,047 workers, or almost 70 per cent of its Coventry labour force. A similar situation developed at Herbert's machine-tool plant which, after financial assistance from the National Enterprise Board, was eventually taken over by Tooling Investments in 1980. However, losses continued to mount, bringing the firm's final demise in 1983 and the sale by auction of its entire stock of machine tools and other equipment. At that time the labour force stood at 400 compared with 12,000 Herbert employees in the early 1970s.²⁴

Coventry's industrial malaise reflected the wider problems of the national economy, but the Lord Mayor's Conferences in 1968 identified certain issues of special local importance. In particular, it was argued that government policies relating to defence and regional development had seriously handicapped the aircraft and motor-vehicle industries. The cancellation of the HS 681 project by the Wilson administration in 1964 was directly responsible

for Hawker Siddeley's decision to close its Baginton works, while the Rootes Group had already succumbed to government pressure by opening a new assembly plant at Linwood near Glasgow rather than expand their Ryton operation. However, the particular significance of government intervention is hard to assess, especially since the Board of Trade denied that Industrial Development Certificates had been used in a way which curtailed Coventry's economic expansion. The conferences also concluded that the city was disadvantaged by its ageing and sometimes outmoded industrial stock. It was claimed that one of the reasons why efforts to attract the new science-based industries had largely failed was that existing capacity was not readily adaptable to their needs. This was important, but in many respects more fundamental was the problem of underinvestment in existing activities, which hampered productivity, depressed profits and further restricted the introduction of new capital. Not only was the industrial base limited, but it was also noted in 1968 that Coventry had failed to attract and develop a significant service sector. The city suffered in this respect from the close proximity of Birmingham with its extensive range of financial and distribution services and public utility and local government offices.²⁵

By the mid-1980s Coventry's economy demonstrated signs of revival as employment increased and new firms were attracted to the city and its environs. However, with the onset of economic recession in the early 1990s this trend was reversed so that between 1991 and 1993 employment fell by 6 per cent, some four points above the national average.²⁶ Yet the underlying strength of the local economy soon brought further job opportunities, until progress was undermined by the impact of an increasingly unstable international economy. Although Coventry's recent economic vicissitudes appear roughly to mirror national patterns, they do disguise important local variations, including the growth of the service sector. During the recession of the early 1990s, for example, employment opportunities in banking, finance and insurance rose sharply, helping to ensure that the growth of Coventry's service sector as a whole outstripped the national average. Similarly, the establishment of the University of Warwick Science Park, the Westwood Business Park and other related initiatives helped manufacturing industry to take full advantage of the economic upswing of the late 1980s, allowing Coventry to boast 'one of the highest concentrations of leading-edge businesses in Europe'.²⁷ These changes had a significant impact upon the labour force, particularly in creating employment opportunities for highly-trained and skilled workers in the advanced technology sectors. In addition, the gap between the level of female and male employment became very narrow with a number of areas beyond manufacturing and construction being dominated by women, many of whom worked part-time.

At first glance, motor-vehicle manufacture may appear to be a less dominant force within Coventry's economy in the 1990s than in the pre-war years. The 1950s and 1960s witnessed considerable change as specialist

producers ceased production, Lea-Francis, Armstrong-Siddeley and Alvis manufactured their last cars respectively in 1954, 1960 and 1967, while the volume makers were subject to a period of takeover.²⁸ By 1980 motor-car production was controlled by BL (formerly British Leyland) and Talbot (successor to Rootes and Chrysler), while the changes of recent years have created a situation where the only volume producer of standard cars in the city is Peugeot, Rover (once part of BL and bought by BMW in 1994) having ceased production in Coventry. Two important and successful specialist firms remain in the shape of Jaguar, the luxury car firm purchased by Ford in 1987, and London Taxis International, manufacturers of taxicabs. The only other major vehicle manufacturers, Massey Ferguson (tractors) and Alvis (armoured vehicles), are not involved in car production.

The rise and subsequent near demise of Coventry's car industry is reflected in the city's changing physical profile as motor works came and went. To begin with, many firms simply converted existing buildings to the manufacture of cars, with Daimler's occupation of a four-storey former cotton mill in Sandy Lane being an early and one of the most important examples. As production increased and investment funds became available car production came increasingly to be concentrated in purpose-built accommodation. In 1908, for example, the Daimler company purchased additional land close to the Coventry to Nuneaton railway line for the construction of workshops which were said to have 'established a new scale for car factories in the city'.²⁹ New systems of production and larger outputs required more space so that motor manufacturers took the opportunity to move beyond the city centre where land was at less of a premium. Thus, the impressive Humber factory in Folly Lane (Stoke) was opened in 1908 to be followed in the interwar period by Standard's large new site at Canley on the northern edge of the city. What is now the Peugeot works at Ryton, and Daimler's factory in Browns Lane, were constructed as shadow factories on greenfield sites peripheral to the city. Although these plants remain in production, many other car factories have been demolished in recent years, including the landmark Standard and Alvis works, to make way for shopping centres and other commercial ventures. Together with the ring road, which has been so important in determining the constrained nature of Coventry's traditional commercial hub, it is perhaps appropriate that these initiatives should have so influenced the architecture of the city which was the midwife to Britain's motor-car industry.

Yet car-making remains important within Coventry's economy as a source of employment and income generation. In 1997 (at the time of writing the latest figures available) Jaguar (4,206) and Peugeot (3,673) were the second- and third-largest employers in the city, together accounting for some 6 per cent of the total labour force. In addition, however, Coventry houses a number of firms who source the major car manufacturers, as well as other firms in aerospace and defence, with a wide range of component products. Research by the economic division of Coventry City Council in 1994 identified some

thirty-seven local suppliers of components to the automotive industry, ranging from engine parts (Coventry Apex) and car seats (Callow and Maddox) to robotic automation systems (Fanuc Robotics) and machine tools (Marrill Engineering).³⁰ Like the assemblers, many of these firms are foreign owned and controlled, indicating the attraction of the Coventry region as a centre for motor-vehicle related investment. Despite the departure of its manufacturing base from the city, Rover continues to be a particularly important source of orders for components manufactured in Coventry. Although relatively small scale in terms of the employment opportunities which it creates, component manufacture has a particular importance within the local economy since it benefits from a relatively broad-based and therefore less volatile market than car assembly, and in many cases has important linkages with a variety of high technology industries.

The foundations of the British motor industry were laid in Coventry in the 1890s and, for a short time in the early twentieth century, the city justified its sobriquet of the British Detroit. The reasons for this phenomenon in Britain's industrial history are many and varied. The availability of capital and labour, and technology transfers from cycles and watchmaking were important, but so, too, was the nature of the entrepreneurial base, a significant proportion of which proved sufficiently prescient and flexible to mobilise the key factors of production. But Coventry's business community operated in a wider context so that rising middle-class incomes, a growing taste for mobility and the influence of war provided the background against which the development of motor-car manufacture in the city was made possible.

Although its relative importance as a centre of the motor industry has declined as major firms have failed or left the city and ownership, as with car manufacture as a whole, has been concentrated overseas, Coventry retains a significant and vibrant car-making sector. With the benefit of hindsight, Coventry's central role in the development of motor-vehicle technology and systems of manufacture can be appreciated, while in helping to spawn the horseless carriage the city set in motion a social, cultural and economic revolution in which the car dominates our public space and helps to define the parameters and quality of our private lives.

Notes

¹ S.B. Saul, 'The Engineering Industry', in D.H. Aldcroft (ed.) *The Development of British Industry and Foreign Competition 1875-1914* (Allen and Unwin, London, 1968), p. 215.

² Census Report, 1911, birthplace details, vol. 9, Cmd. 7017, table 2.

³ Medical Officer of Health for Coventry, Annual Report (Coventry, 1898), p. 7.

⁴ M. Davis, *Every Man His Own Landlord* (Coventry Building Society, Coventry, 1985), p. 21.

- ⁵ Public Record Office (PRO), Ed. 16/318, Report of a meeting between representatives of the LEA and the Board of Education, 6 November 1912.
- ⁶ PRO, Ed. 16/318, HA to Richardson, 10 February 1915.
- ⁷ M. Lodge, 'How we ran the welfare', *Health Visitor*, vol. 56 (1983), p. 244.
- ⁸ E.H. Hunt, *Regional Wage Variations in Britain 1850-1914* (Clarendon Press, Oxford, 1973), pp. 160-61.
- ⁹ Medical Officer of Health for Coventry, *Annual Report* (1910), p. 90.
- ¹⁰ Medical Officer of Health for Coventry, *Annual Report* (1890), p. 11.
- ¹¹ *The Times*, 17 January 1916.
- ¹² Bishopgate Institute, Reform League, Report by Hales and Brightly, 1868.
- ¹³ P. Searby, 'Lists of Prices in the Coventry Silk Industry, 1800-1860', *Bulletin of the Society for the Study of Labour History* (1973), pp. 48-53.
- ¹⁴ R.A. Church, 'Nineteenth Century Clock Technology in Britain, the United States and Switzerland', *Economic History Review*, 2nd series, vol. XXVIII, no. 4 (1975), pp. 621-2.
- ¹⁵ C. Saunders, *Seasonal Variations in Employment* (Longmans, London, 1936), p. 98 (footnote); *Birmingham Gazette*, 3 November 1937.
- ¹⁶ Davis, *Every Man His Own Landlord*, p. 70.
- ¹⁷ PRO, Ed. 60/557, T.W. Southern to G.L. Thornton, 13 October 1938.
- ¹⁸ K. Richardson, *Twentieth Century Coventry*, (Coventry City Council, Coventry, 1972), pp. 251-6.
- ¹⁹ *Ibid.*, pp. 32-64
- ²⁰ K. Atkinson, *The Singer Story*, (Veloce, Godmanstone, 1996), pp. 19-20; see also, D. Brassington, R. Dean and D. Chalk, *Singers to Sky Blues* (Buckingham, Sporting and Leisure Press, 1986).
- ²¹ J. Crump, 'Recreation in Coventry Between the Wars' in B. Lancaster and T. Mason, *Life and Labour in a 20th Century City: The Experience of Coventry* (Cryfield Press, Coventry, n.d.), p. 280; see also, P. Thompson, 'Imagination and Passivity in Leisure; Coventry Car Workers and their Families from the 1920s to the 1990s', in D.W. Thoms, L. Holden and T. Claydon (eds), *The Motor Car and Popular Culture in the 20th Century* (Ashgate, Aldershot, 1998).
- ²² A. Friedman, *Industry and Labour*, (Macmillan, London, 1977), pp. 202-4.
- ²³ Richardson, *Twentieth Century Coventry*, pp. 142-3.
- ²⁴ S. Taylor, 'Unemployment in the West Midlands', in B. Crick (ed.), *Unemployment*, (Methuen, London, 1981), pp. 74-3; 'Redundancies in Coventry', *Coventry Quarterly Monitor of the Economy*, no. 3 (1980).
- ²⁵ Richardson, *Twentieth Century Coventry*, pp. 127-53.
- ²⁶ *Coventry Facts and Figures* (Coventry City Council, Coventry, 1997), p. 33.
- ²⁷ *Ibid.*, p. 30.
- ²⁸ *Coventry Evening Telegraphy*, 16 January 1996.
- ²⁹ *Coventry Car Factories. A Centenary Guide* (Coventry City Council, Coventry, 1995), p. 5.
- ³⁰ S. Smith, *Challenges and Opportunities for the Automotive Component Sector in Coventry in the 1990s* (Coventry City Council, Coventry, 1994).