Optical connections

Precision optics and footballing ambitions in Europe. **David Baker** tells the story of FC Carl Zeiss Jena and a famous cup tie with Newport County

n 1981 a plucky little football team from south Wales, recently promoted to the Third Division of the Football League (equivalent to today's League One), found themselves in the quarter-finals of the European Cup Winners' Cup by virtue of having also won the Welsh Cup the previous season. Barring their way to the semi-finals were the three-time East German champions and runners-up on nine occasions more. Could Newport County pull off the shock of the season? And what does a football match have to do with precision optics?

Newport's opponents were FC Carl Zeiss Jena. They were formed in May 1903 by workers at the Carl Zeiss optical factory and, sponsored by the company, originally went by the name of Fussball-Club der Firma Carl Zeiss, although the club's name was to undergo several changes down the years. With the growth of football as a popular pastime in the late 19th century it became common for employees of large manufacturers to run sports teams. A team formed by workers in the Carriage and Wagon department of the Lancashire and Yorkshire Railway became Newton Heath LYR FC, which later underwent another name change to Manchester United. In the Netherlands, Philips actually formed a club for the benefit of its employees, Philips Sport Vereniging, better known as PSV Eindhoven.

Abbe's influence

The Zeiss works originated with Carl Zeiss (1816-1888) who opened his first workshop and small store in 1846, in Jena, making and selling optical instruments. At that time building optical systems for microscopes was largely a time-consuming trial-and-error affair. In the 1860s Zeiss engaged the help of a physics lecturer at the University of Jena, Ernst Abbe (of 'Abbe number' fame), to help put lens construction on a more scientific footing. Abbe's work in the subject and the formulas he



The big match



derived enabled the Zeiss microscopes to gain an international reputation for quality; and in 1876 (with retroactive effect from 1875) he became a partner in the firm.

Abbe was also quite a social reformer. He had become sole director of the company on Zeiss' death, having acquired his heirs' shares. Perhaps his most important act was to establish the Carl Zeiss Foundation in 1889 in order to ensure the continued existence and ethos of the company irrespective of personal ownership interests. This he did by transferring all the Zeiss shares to the foundation, making it sole owner. He also gave it his shares in the Schott specialist glassmaking company that worked closely with and supplied Zeiss; the founder, Otto Schott, later transferred his

shares in 1919, making the foundation sole owners of the glassworks too.

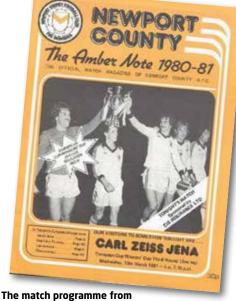
The employees' welfare was also of great concern to Abbe. The foundation enshrined legal obligations of the management to maintain good labour relations. He introduced profit-sharing, a right to retirement pensions, sick pay and holiday pay. In 1900, perhaps remembering the hard life of his father as a 14-hours-a-day foreman in a spinnery, he brought in the revolutionary concept of an eight-hour working day. It is fitting then that the football club, having commenced building its stadium in 1921, decided to rename it for its 15th anniversary the 'Ernst Abbe Sports Field', an arena presently with a capacity for just under 13,000 spectators (pictured above).

There was a fair amount of success for FC Carl Zeiss Jena (CZJ) in its early years, winning the regional league 12 times during the period 1910 – 1933. The Nazi regime and partition of the country after the Second World War inevitably created upheavals in the organisation of German football, but CZJ also flourished in the post-war years in the East German League, reconstituting as a club independent of the Zeiss company in 1966. Several of their players were capped by East Germany, notably Konrad Weise, their most capped player (86 caps), who played

for the club between 1970 and 1986. Perhaps their most famous son is Bernd Schneider, who won 81 caps for the unified Germany, although his success came at Bayer Levekusen (another company employees' club, incidentally).

At the end of the 1979-80 season CZI finished third in their league and were about to become runners-up for the ninth and last time: one of the powerhouses of East German football. Newport County had just been promoted to the third tier of the four-division English league for the first time. Both had qualified for the following season's European Cup Winners' Cup (CWC) by winning their respective country's domestic cup competitions (with the CWC now defunct, the clubs would nowadays be entered into the Europa League). CZJ might be expected to progress well in the competition – but Newport? A relatively kind draw in the first two rounds saw Newport beat Crusaders of Northern Ireland and SK Haugar of Norway 4-0 and 6-0 respectively on aggregate, while CZJ successfully navigated a much more difficult route past Roma and Valencia.

CZJ and Newport were drawn together in the quarter-finals. The first leg of the tie was at the Ernst Abbe Sports Field on March 3, 1981. As if Newport's task wasn't difficult enough, they were without their striker John Aldridge, later to star with Liverpool, through injury. Predictably the Welsh minnows went behind early on, but managed to equalise. A late goal by Jürgen Raab, scorer of both goals, put CZJ ahead again; but an even later goal, in the 90th minute,



the second leg in Newport

by Tommy Tynan, also his second of the match, enabled Newport and their 200 doughty supporters to return home from behind the Iron Curtain with a 2-2 scoreline.

That season Newport had an average home attendance of about 5,600. On the night of March 18, the club's Rodney Parade ground was heaving with 18,000 people eager to witness the Welsh defend their two away goals. But inspired goalkeeping and goal-line clearances frustrated Newport, while a converted free-kick gave CZJ a 1-0 win on the night, sending them through to the semi-finals 3-2 on aggregate. CZJ squeezed past Benfica 2-1 on aggregate in the semis, but lost by the same score in the final to Dinamo Tbilisi.

That period proved somewhat

Optical connections

of a watershed for both clubs. Newport enjoyed a few seasons of domestic success but in 1987 they were relegated from the Third Division, and dropped out of the League the following season. German reunification proved tough for CZJ, as it did for most East German clubs, finding themselves pitted against wealthier West German outfits. Initially placed in the second division of the new Bundesliga, CZJ now play in the fourth tier of the league pyramid. Newport have at last finally turned their fortunes around. Under the management of ex-Tottenham player, Justin Edinburgh, Newport last season won promotion back to the Football League after 25 years' exile.

Friendly anniversary

This year is the 110th anniversary of CZJ's formation. To mark the occasion, they invited their old adversaries over to play a friendly match in remembrance of their famous CWC tie. Newportbased group, Flyscreen, who wrote a song at the time, called Carl Zeiss Jena, to celebrate the 1981 matches, have recently re-recorded it and released the new version to mark the anniversary and re-match. On July 13, a crowd of 2,800, including 250 from Wales, saw CZJ take a two-goal lead. Newport pulled one back and, as if in commemoration of that famous first leg match, gained an equaliser right at the death to replicate the finale of the original 2-2 draw. Who knows when and in what circumstances they will meet again. 🔴

• David Baker is an independent optometrist

