Carl Zeiss (1816-1888): A Pioneer in Promoting the Collaboration between Science and Technology

Youth and education
11 September 1816 Born in Weimar as the fifth of twelve children of Johanna Antoinette Friederike (1786–1856), née Schmith, and the art wood turner Johann Gottfried August Zeiss (1785–1849)
1832 Graduated from grammar school
1834-1838 Apprenticeship under University Mechanic Dr. Friedrich Körner (1778–1847) in Jena while studying mathematics
1838-1845 Journeyman years: travels to Stuttgart, Darmstadt, Vienna (Rollé & Schwilqué, lectures at the Royal Polytechnic Institute) and Berlin
1845-1846 Period spent in Jena "to primarily study chemistry and advanced mathematics" and to acquire citizenship of and right of abode in Jena

Establishment of the mechanical workshop in Jena
17 November 1846 Opening of a workshop (“atelier for mechanics”) on Jena’s Neugasse
1 July 1847 Relocation to a larger workshop on Wagnergasse
1847 The first simple microscope is produced
29 May 1849 Marries Bertha, née Schatter (1827–1850)
23 February 1850 Birth of their son Roderich (1850–1919); Bertha dies in childbirth
17 May 1853 Marries Ottilie, née Trinkler (1819–1897)
25 February 1854 Birth of their son Otto (1854–1925)
27 September 1856 Birth of daughter Hedwig (1856–1935)
1857 Builds the first compound microscope.
1 May 1858 Relocation to a workshop on Johannisplatz
12 July 1858 Becomes deputy Master of Weights and Measures in Jena
10 September 1860 Appointed university mechanic
23 July 1861 First honorary prize and gold medal at the 2nd General Thuringian Trade Exhibition
1 October 1861 Birth of daughter Sidonie (1861–1920)
1863 Zeiss becomes court mechanic
28 May 1866 Production of the 1,000th microscope

Collaboration with Ernst Abbe
3 July 1866 Dr. Ernst Abbe is brought in to assist Zeiss as an independent researcher (in 1870 also a professor at the University of Jena)
From 1872 onwards All ZEISS microscope optics are built in line with Abbe’s calculations
1 January 1875  Creation of Carl Zeiss health insurance
15 May 1875  Ernst Abbe becomes a silent partner
1876  Son Dr. Roderich Zeiss joins the company
1877  First microscope lens with homogeneous immersion produced
1878  Daughter Hedwig marries the grammar school teacher Konrad Sagawe (1858–1935)
1880  Carl Zeiss receives honorary doctorate (Dr. phil. h.c.) from the University of Jena
1880  Construction of a private residence on Littergässchen, today Carl-Zeiss-Strasse, and first factory building on what will later be the site of the main factory

**A growing family**
1881  Son Otto marries Franziska Thierbach (1862–1885)
1882  Daughter Sidonie marries the physician Johann Lucas Siebert (1841–1913)
26 January 1882  Birth of granddaughter Charlotte (1882–1945)
20 May 1882  Birth of grandson Franz (1882–1882)
1883  Son Roderich marries Therese Schatter (1864–1949)
2 July 1883  Birth of granddaughter Johanna (1883–1943)
6 July 1883  Birth of grandson Berthold (1883–1945)
1 January 1884  Founding of the *Glastechnisches Laboratorium* (Glass Laboratory), later to become *Jenaer Glaswerks Schott & Gen.* (today SCHOTT AG) by Otto Schott, Ernst Abbe, Carl Zeiss and Roderich Zeiss
16 March 1884  Birth of granddaughter Elisabeth (1884–1958)

**Old age and death**
Dec. 1885  Carl Zeiss suffers a minor stroke
24 September 1886  10,000th Zeiss microscope produced
19 November 1886  The Grand Duke of Saxe-Weimar-Eisenach names Carl Zeiss the Knight’s Cross, First Class, by Order of the White Falcon
25 November 1886  Birth of granddaughter Elisabeth (1888–1958)
3 December 1886  Carl Zeiss dies in Jena

More information at:
[www.zeiss.com/carlzeiss200](http://www.zeiss.com/carlzeiss200)

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