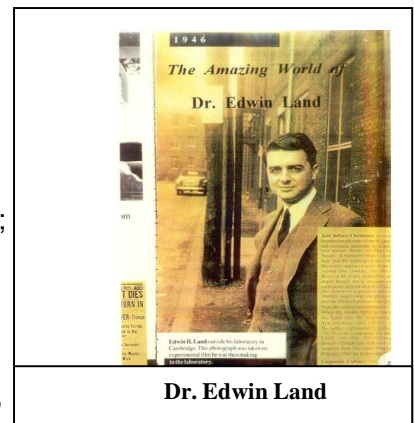


Who Killed Polaroid ?

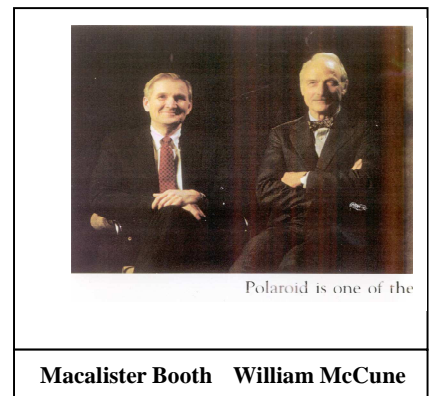
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The Polaroid Corporation had been one of the most exciting, controversial and misunderstood companies of all time. Some might argue that it was seriously mismanaged throughout its convoluted history. Others might believe that its "growing pains" were unavoidable and to be expected for a \$ 2.3 billion cutting-edge technology company. Polaroid filed for bankruptcy in 2001 and was dismembered, piece by painful piece. The remainder of the Company was acquired by an investment group in 2002, sold again to another investment group, and finally laid to rest permanently. Did this just happen, or did someone kill Polaroid?

The Polaroid Corporation was founded in 1937 by Dr. Edwin Land (1909 – 1991) to commercialize his first product: polarizing light material. This unique 3-layered sheet structure found use in light control, glare reduction, 3D movies, and a variety of military applications such as goggles, smart bombs and target finders. Land was in his late 20s when he launched Polaroid. During the Second World War, the company grew rapidly. By 1949, under the relentless leadership of Dr. Land, Polaroid had developed and commercialized the Land Camera - the first instant black and white camera and film system capable of producing exceptional photos in 60 seconds. This was followed by several other break-through products, including the instant color peel-apart system (1963); SX-70 absolute on-step color photography (1972); Polavision instant movie camera, film and projector system (1975). Polavision was a financial disaster (-\$500M) due to the complexity of the technology and the simultaneous emergence of magnetic video tape and diskettes. After 43 years as CEO and Chairman of the Board, Dr. Land resigned from Polaroid in 1980 to pursue his technological passions in his Rowland Institute for Science. He left a legacy of a strong non-entrepreneurial culture.



In 1980, William McCune, Executive Vice President of Engineering, became the second CEO of Polaroid. McCune had a lifetime career at Polaroid, and during his tenure as CEO, Polaroid created the Micro-electronics Laboratory, and began to exploit the Polaroid global brand on non-proprietary technologies such as magnetic video and diskettes. Polaroid lost its marketing edge when McCune dropped its high-power advertising agency, Doyle Dane, which firm was responsible for the global branding of Polaroid as the innovative technological magician.

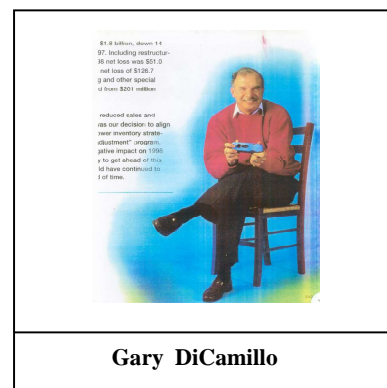


Macalister Booth succeeded McCune in 1985, and became the third CEO of Polaroid. Booth had a lifetime career at Polaroid also, and had risen to the position of Executive Vice President of Operations before being promoted to CEO.

Much happened during Macalister Booth's reign as leader:

- Polaroid prevailed in a patent infringement lawsuit against Kodak, gaining \$900 million.
- An attempted hostile takeover by a corporate raiding group was thwarted by stock buy-back;
- The Helios Graphic Medical Imaging system failed during commercialization (-\$600M);
- Polaroid's Micro-electronic Lab was sold to MIT;
- and many other external and internal situations, as detailed in the milestones below.

In 1995, the Board of Directors appointed Gary DiCamillo as CEO and Chairman of Polaroid. DiCamillo had been Vice President of Marketing at Black and Decker before becoming the first outside chief executive of Polaroid. During DiCamillo's tenure, a new hybrid industry was emerging: INFO-IMAGING, encompassing words, wireless, pictures, web and printing. Major electronics, photographic, telecommunications and copier companies were vying for their share of this promising \$200 billion dollar industry. DiCamillo pursued Polaroid's core technology by developing and marketing a variety of new instant photography camera



and film niche products. Polaroid introduced its digital camera line in 2000, and quickly captured a 16% market share of the digital camera industry. In 2001, Polaroid introduced a new product line of digital imaging and printing technology that integrated the wireless phone, the palm pilot, kiosks and hand-held printers. On October 31, 2001, Polaroid filed for protection under the bankruptcy laws of Delaware. Trading in Polaroid stock was terminated. The Company was acquired by a private investment group.

In preparation for the case discussion, study Polaroid's significant milestones and financial performance below. Research the company over the web or in any literature you may find. Many books and articles have been written about Dr. Edwin Land and the Polaroid Corporation. Explore www.primaryPDC.com, www.google.com, www.ask.com and many, many other sources.


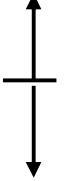
Come to class with your conviction of:

Who and What Killed Polaroid ?

When you have identified the guilty party and causes of Polaroid's downfall, ask yourself:

- *Could I have saved Polaroid if the clock were turned back?*
- *If I were the killer, what would I have done differently? Specifically?*
- *Going forward, what would my 10-year transformative strategic plan be?*
- *How would I implement my plan?* Be definitive and quantitative: Resources needed, timetable, roadblocks, assumptions, \$\$ projections, Return On Investment, keys to success?

Polaroid Milestones

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- 
- 1937: The Polaroid Corporation is formed by **Dr. Edwin Land** to commercialize his polarizing technology that he developed while studying as an undergraduate student at Harvard University. Land dropped out of Harvard in his first year at the age of 17.
- 1938: Polaroid produces a variety of polarizing products for military and commercial applications: lamps, polariscopes, variable-density windows, aviation goggles.
- 1940: Polaroid announces Vectograph three-dimensional pictures.
- 1944: Edwin Land conceives the instant black and white, peel-apart photographic system and launches an intensive research program.
- 1949: Polaroid film and cameras make black and white photographs in 60 seconds. More than 4,000 dealers throughout America sell Polaroid cameras and film.
- 1951: Polaroid polarizing lenses are produced for sunglasses and military goggles.
- 1957: The Polaroid Instant Black and White Transparency System is introduced for medical applications.
- 1960: Polaroid introduces its first automatic exposure camera with an electric eye.
- 1963: Polaroid introduces its breakthrough product, peel-apart Instant Color Photography.
- 1966: Polaroid begins the development of Instant Color Movies, Polavision.
- 1971: The Photographic Identification System is introduced.
- 1972: The revolutionary SX-70 photographic system realized Dr. Land's concept of absolute one-step color photography that ejects a dry photograph which develops in full sunlight in seconds.
- 1972: The breakthrough Polapulse Battery is developed to power the SX-70 camera and is also introduced for other commercial applications.
- 1974: Polaroid estimates that well over one billion instant prints will be made this year.
- 1976: Kodak enters the Instant Photography market. Battle between Polaroid and Kodak begins. Polaroid sues Kodak for infringement of 14 fundamental technology patents.
- 1977: Polaroid gives up on its Instant Movie development program, Polavision, which resulted in the loss of \$500 million, as video cameras gained rapid market acceptance.
- 1978: Research into sonar technology, initiated in 1963, results in the Sonar Auto-focus system for Polaroid cameras.
- 1980: Dr. Land resigns as Chief Executive Officer. He leaves a legacy of a strong non-entrepreneurial culture that revolved around him; **William McCune, Vice President of Engineering, becomes CEO**.
- 1982: Polaroid loses its marketing edge when it dropped its advertising agency – Doyle Dane.
- 1983: Polaroid enters the magnetic video and diskette markets using non-proprietary technology.

- 1984: Micro-Electronics Laboratory (MEL) was founded with the mission of competing in the emerging digital imaging marketplace. State-of-the-art imaging, coating, micro-electronics.
- 1985: McCune resigns as Chief Executive Officer; **Macalister Booth**, Vice President of Operations, becomes CEO. Dr. Land sells all his shares of Polaroid Corporation.
- 1985: The first conventional color transparency films are distributed on a limited basis for commercial and industrial photographers. Total debt: \$225 million.
- 1986: Polaroid and Toshiba Corporation jointly develop the freeze-frame video recorder.
- 1988: Hostile takeover attempt by Shamrock Holdings, headed by Roy Disney and Stanley Gold. Polaroid thwarts takeover by buying back its stock. Cost: \$450 million. Total debt \$830 million.
- 1991: Polaroid is successful in its lawsuit against Kodak. Kodak leaves the Instant Photography market and pays Polaroid over 925 million dollars in damages. Total debt: \$228 million.
- 1992: Helios Medical Graphic Imaging under development - B & W, high resolution, laser writer.
- 1994 New instant camera, Captiva, with smaller format film fails – cost: \$300 million.
- 1995: Helios fails at a total cost of \$600 million, including development and manufacturing facilities.
- 1995: Polaroid's state-of-the-art Micro-Electronics Lab sold to MIT.
- 1995: Booth retires as Chief Executive Officer. **Gary DiCamillo**, Marketing executive at Black and Decker, takes the reins as CEO, being the first outside chief executive of Polaroid.
- 1996: Development and commercialization of advanced digital cameras for use with Polaroid film.
- 1997: Simultaneously, DiCamillo pursues Polaroid's core technology of instant photography.
- 1999: Success of Polaroid's new marketing strategy with Izone camera results in profit rebound.
- 2000: Polaroid captures 16% market share with its digital still camera. Sony has 27%.
- 2001: Bleak earnings reports and burdensome \$935 million debt result in massive layoffs and the collapse of Polaroid stock price.
- 2001: Polaroid introduces a new product line of digital imaging and printing technology that integrates the wireless phone, the palm pilot, kiosks and hand-held printers.
- 2001: Canon introduces an ink jet color printer, producing brilliant 2400X1200 DPI photo images.
- 2001: Polaroid divests its Identification System business.
- 2001: A new hybrid industry emerges – INFOIMAGING, encompassing words, wireless, pictures, web and printing. Major electronics, photographic, telecommunications and copier companies are vying for their share of this promising \$200 billion dollar industry.
- 2001: Polaroid files for protection under the bankruptcy laws of Delaware.
- 2002: Trading in Polaroid stock is terminated; the Company was acquired and privatized.

Polaroid Corporation Statement of Operations (\$ 000,000)

	<u>2000</u>	<u>1999</u>	<u>1998</u>
<u>Net Sales</u>	1,856	1,979	1,846
Cost of Goods Sold	1,056	1,170	1,108
Marketing, Admin, Research	696	700	736
Restructuring Charges	50	----	(5.8)
<u>Total Costs</u>	1,746	1,871	1,895
	-----	-----	-----
<u>Income (loss) from Operations</u>	109	108	(49)
	-----	-----	-----
Earnings Per Share	0.84	0.20	(1.15)
Dividends Per Share	0.60	0.60	0.60

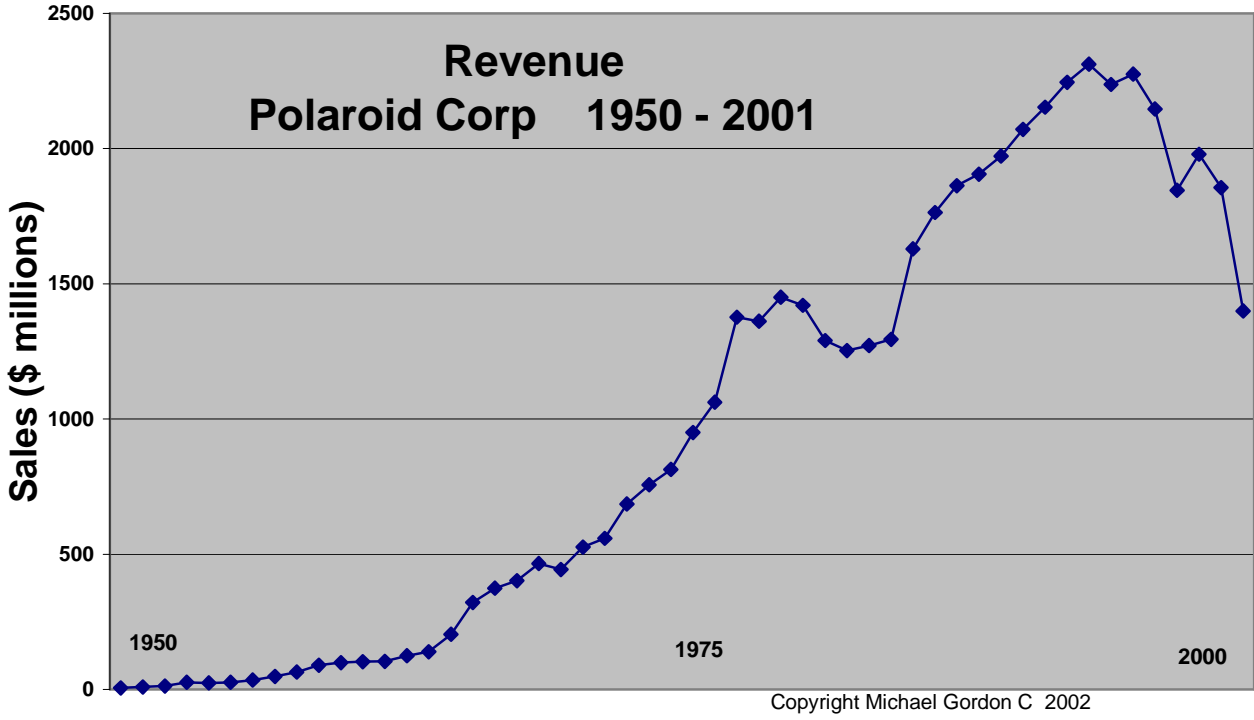
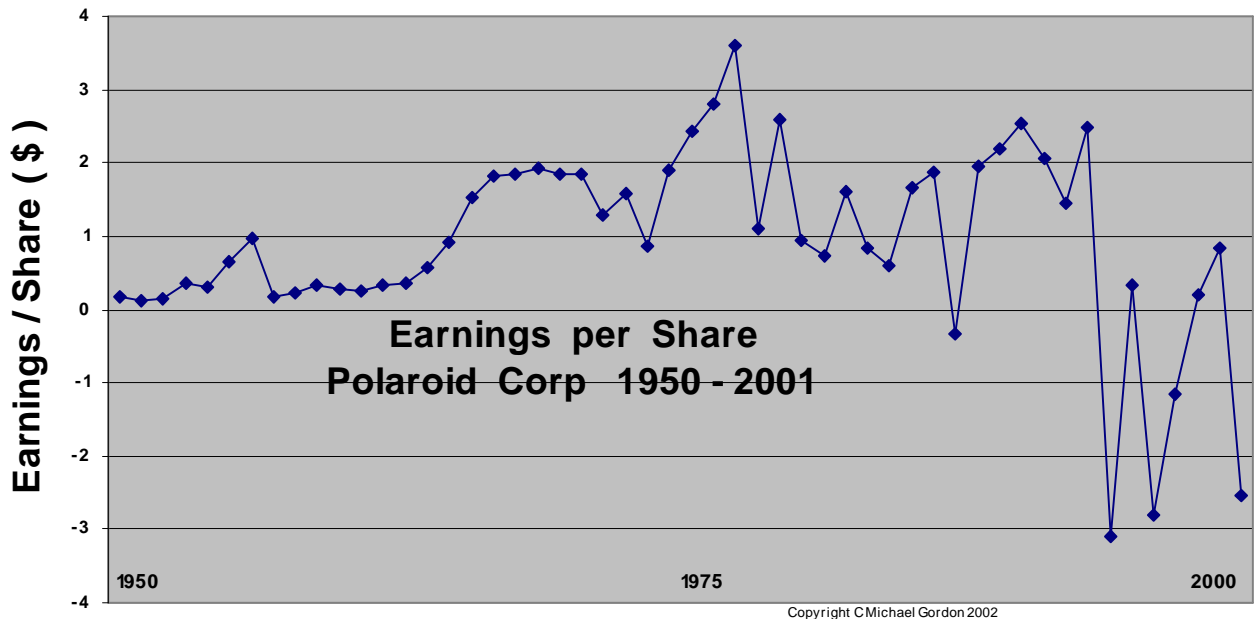
Polaroid Corporation Balance Sheet (\$ 000,000)

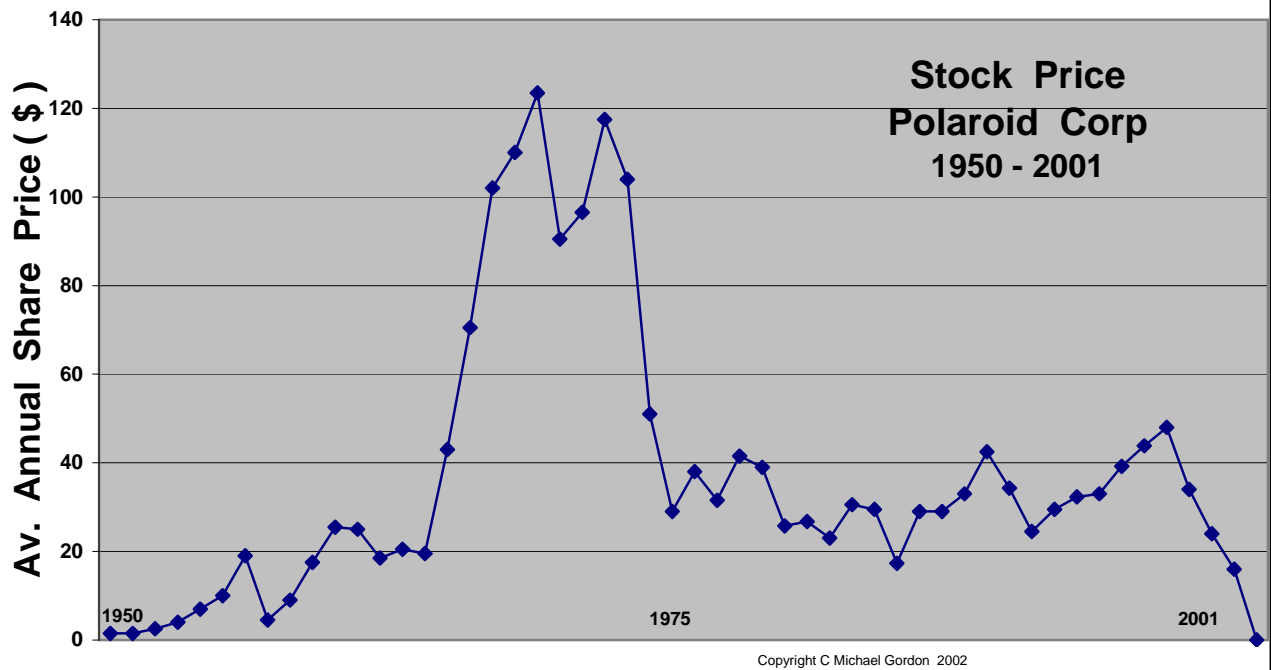
	<u>Dec 31, 2000</u>	<u>Dec 31, 1999</u>
Cash & Cash Equivalents	97	92
Receivables Less Allowances	435	490
Inventories and Other Assets	586	500
<u>Total Current Assets</u>	\$ 1,119	\$ 1,108
Property, Plant and Equipment	569	599
Other Long-Term Assets	355	333
	-----	-----
<u>TOTAL CURRENT & LONG-TERM ASSETS</u>	\$ 2,043	\$ 2,040
Total Current Liabilities	793	750
Total Long-Term Liabilities	874	919
<u>TOTAL CURENT & LONG-TERM LIABILITIES</u>	1,668	1,670
<u>NET WORTH</u>	375	370
Shares Outstanding (Millions)	45.5	44.6
Market Capitalization (\$ M)	273	803

Polaroid Corporation

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<u>Year</u>	<u>Sales (\$ Millions)</u>	<u>Earnings / Share (\$)</u>	<u>Av. Annual Stock Price (\$)</u>
1950	6	0.18	2
1951	9	0.12	2
1952	13	0.15	3
1953	26	0.37	4
1954	24	0.30	7
1955	26	0.64	10
1956	35	0.98	19
1957	48	0.18	5
1958	65	0.23	9
1959	90	0.34	18
1960	99	0.28	26
1961	102	0.26	25
1962	104	0.32	19
1963	124	0.36	21
1964	139	0.58	20
1965	204	0.93	43
1966	322	1.52	71
1967	374	1.81	102
1968	402	1.86	110
1969	466	1.92	124
1970	444	1.86	91
1971	526	1.86	97
1972	559	1.30	118
1973	686	1.58	104
1974	757	0.86	51
1975	813	1.91	29
1976	950	2.43	38
1977	1062	2.81	32
1978	1377	3.60	42
1979	1362	1.10	39
1980	1,451	2.60	26
1981	1,420	0.95	27
1982	1,290	0.73	23
1983	1,254	1.61	31
1984	1,272	0.83	30
1985	1,295	0.60	17
1986	1,629	1.67	29
1987	1,764	1.88	29
1988	1,863	-0.34	33
1989	1,905	1.96	43
1990	1,972	2.20	34
1991	2,071	2.54	25
1992	2,153	2.06	30
1993	2,245	1.45	32
1994	2,312	2.49	33
1995	2,237	-3.09	39
1996	2275	0.32	44
1997	2146	-2.81	48
1998	1846	-1.15	34
1999	1979	0.2	24
2000	1856	0.84	16
2001	1400	-2.55	0





Polaroid SX 70



Polaroid Land Camera



Polaroid Sun 600

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