

CHEMICAL HERITAGE FOUNDATION

**HARRY SELLO**

Transcript of Interviews  
Conducted by

David C. Brock and Christophe Lécuyer

at

Menlo Park, California

on

4 November 2004, 7 January 2005, and 16 March 2005

(With Subsequent Corrections and Additions)

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## HARRY SELLO

1921 Born in Chernihiv, Ukraine on 20 March

### Education

1942 A.B., chemistry, University of Illinois  
1944 M.A., physical chemistry, University of Missouri  
1948 Ph.D., physical chemistry, University of Missouri

### Professional Experience

1948-1956 Shell Development Corporation  
Research Chemist

1956-1959 Shockley Semiconductor Laboratory  
Senior Staff

1959-1981 Fairchild Semiconductor Research and Development, Palo Alto, California  
Head of pre-production engineering section, Semiconductor  
Research Laboratory

1962-1964 Operations Manager, Societa Generale Semiconduttore  
1966-1967 Manager of Materials and Processes Department, Semiconductor  
Research Lab

1967-1968 Technical Planning Director, Research Laboratory  
1968-1980 Technical Director, International Marketing Division

1980-present Harry Sello and Associates, Menlo Park, California  
President

### Honors

1944 Pi Mu Epsilon, Mathematics Honorary  
1948 Sigma Xi, National Research Honorary  
1976 Chairman, International Committee, American Electronics Association  
1982 Chairman, International Committee, American Electronics Association  
1990 Export Executive of the Year, Northern California District Office, U.S.  
Department of Commerce

## ABSTRACT

**Harry Sello** begins the first interview with a review of his childhood which included emigration from Russia and a strong emphasis on education in his household. Sello quickly became interested in chemistry and completed undergraduate work in organic chemistry before applying this knowledge to his Ph.D. research on the rearrangement of single molecules at the University of Missouri. He completed service in the United States Navy and modeled scaling-up procedures of flammable compounds at Shell Development Company. William Shockley recruited him to Shockley Semiconductor Laboratory, from which he departed on suspicion of connection to the founders of Fairchild Semiconductor. At Shockley and then at Fairchild, Sello worked on a variety of chemical aspects of semiconductor manufacturing. At Fairchild Semiconductor, Sello concentrated on the transfer of silicon transistor technology to Societa Generale Semiconduttore in Italy, negotiating cultural and industrial boundaries. Sello remained with Fairchild Semiconductor during its decline, reorganizing research and production. In 1980, he began Harry Sello Associates after Fairchild Semiconductor was sold to Schlumberger Exploration. Sello concludes the interview with reflections on his current role as an expert witness.

## INTERVIEWERS

**David C. Brock** is a senior research fellow with the Center for Contemporary History and Policy of the Chemical Heritage Foundation. As an historian of science and technology, he specializes in oral history, the history of instrumentation, and the history of semiconductor science, technology, and industry. Brock has studied the philosophy, sociology, and history of science at Brown University, the University of Edinburgh, and Princeton University (respectively and chronologically). His most recent publication is *Understanding Moore's Law: Four Decades of Innovation* (Philadelphia: Chemical Heritage Press, 2006), which he edited and to which he contributed.

**Christophe Lécuyer** is a graduate of the École Normale Supérieure in Paris, and he received a doctorate in history from Stanford University. He was a fellow of the Dibner Institute for the History of Science and Technology and has taught at the Massachusetts Institute of Technology, Stanford University, and the University of Virginia. Prior to becoming a senior research fellow at CHF, Lécuyer was the program manager of the electronic materials department. He has published widely on the history of electronics, engineering education, and medical and scientific instruments and is the author of *Making Silicon Valley: Innovation and the Growth of High Tech, 1930-1970* (2005).

## TABLE OF CONTENTS

- 1 Childhood and Early Education  
Family History. Great Depression Era. Relationship with Father. Relationship with Mother. Pastimes. High School Interest in Chemistry. Wright Junior College. Student Employment. Laboratory Work. University of Illinois. Organic Chemistry. World War II Draft. Encouragement for Graduate School.
- 31 Graduate Years  
University of Missouri. Worth H. Rodebush. George Vineyard. Master's Thesis on Penacol Compounds. Service in the U.S. Navy. Ph.D. Thesis. Shell Development Company.
- 49 Shell Development Company  
Process Development Department. Scaling Up of Flammable Material. Equipment Modification. William B. Shockley. *Tempest in a Text Tube* Television Program. High School Teaching. Photolithography.
- 62 Shockley Semiconductor Laboratory  
Psychological Testing. William Shockley. Photolithography. Management Style of William Shockley. Transistor Packaging. Coworkers. Chih-Tang Sah. Jean A. Hoerni. Personnel Management Issues. Founding of Fairchild Semiconductor. Maurice Hanafin. Silicon Wafer Diffusion. Bell Telephone Laboratories.
- 77 Fairchild Semiconductor  
Four-Layer Diode. Role at Fairchild Semiconductor. Gordon E. Moore. Pre-production. Work in Italy. NPN Transistor. Transfer of Technology. Germanium Transistor in Europe. Societa Generale Semiconduttore. Materials and Processes. Electromigration. Research and Development. Soviet Semiconductor Market. Germanium Transistor. W. Jerry Sanders. National Semiconductor.
- 165 Fairchild Semiconductor after Intel Corporation  
Research and Development. Loss of Gordon E. Moore and Robert N. Noyce. Technical Planning. Partnership with Societa Generale Semiconduttore. International Business. Licensing. Revenue. Bipolar and Integrated Circuits. Schlumberger Exploration. Decline of Fairchild Semiconductor. Harry Sello and Associates.
- 202 Index

## INDEX

### A

Advanced Micro Devices, Inc. [AMD], 162, 182  
Alderisio, Piero, 146-148  
*All the President's Men*, 198  
Amelco Semiconductor, 132  
Amelio, Gil, 174, 178  
Angell, Jim, 140, 143  
Atalla, M. M. John, 96  
Ates, 128-129

### B

Bailar, J.C., 26, 31  
Baldwin, Edward, 111  
Bardeen, John, 108  
Barrett, Craig R., 191  
Bay, Thomas, 152, 154-155, 158, 161-163  
Beckman, Arnold O., 88-90  
Bell Telephone Laboratories Inc., 65-66, 95, 97-99, 101, 118, 186  
    contributions to silicon technology, 97  
Bent, Henry, 32  
Biesele, Rudy, 92, 102-103  
Bipolar transistor, 170-173, 175-176, 178, 181, 184, 186-187  
Blank, Julius, 84  
Blesh, Elan, 137-138, 140, 142, 168-169  
Borovoy, Roger S., 101, 156, 174  
Brattain, Walter, 54, 65  
Brown, Elmer, 91, 102

### C

Cannes, France, 158  
Charged coupled device [CCD], 170, 174, 176, 178, 181, 199  
Coburn, Chris, 157  
Corrigan, Wulf, 170-171, 178-179, 181, 184-186, 190-191, 194-195, 198

### D

De Kruif, Paul, 16, 25  
Deal, Bruce E., 98, 167-168, 174, 179, 197  
Department of Commerce, United States, 175  
Department of Defense [DOD], United States, 175-176, 198  
Derrick, Lincoln, 96-97  
Dunlap, W. Crawford, 105  
Dynamic random access memory [DRAM], 182, 188



## E

Early, James M., 186  
Eindhoven, Netherlands, 174, 178, 197  
Eyring, Henry, 32

## F

Faggin, Federico, 194  
Fairchild Semiconductor Corporation, 99, 152-157, 159, 161-182, 184, 186-187, 189-200  
    and ion implantation, 140  
    challenges, 109, 116-118, 124-126, 133, 135-136  
    facilities in Europe, 128  
    facility in Mountain View, California, 116  
    facility in Palo Alto, California, 116  
    facility in San Rafael, California, 115  
    importance of planar transistor, 118  
    international marketing, 124  
    Materials and Processes Division, 131  
    mesa transistor (NPN), 109  
    movie about integrated circuits, 143  
    NPN and PNP lines, 115  
    reasons for success, 108  
    relationship with IBM, 137  
    relationship with Societa Generale Semiconduttore (SGS), 121, 124-125, 128-130, 146  
    sells share in SGS in 1968, 128  
    silicon PN diode, 109  
    use of carnauba wax, 72  
Faraday, Michael, 56  
Flaver, Hans, 96  
Floriani, Virgilio, 121, 153, 159  
Fok, Samuel, 82, 97, 103-104, 112, 167  
    role at Fairchild Semiconductor Corporation, 111  
    role at Shockley Semiconductor Laboratory, 84  
Ford Foundation, 145  
    sponsor of *Tempest in a Test Tube* television series, 56  
Frosch, Carl J., 96-97

## G

General Electric, 105, 114  
Goetzberger, Adolf, 104  
Gibbons, James, 84, 93, 99, 107  
Gordon Research Conference, 52  
Grinich, Victor H., 83, 86, 97, 102  
    role at Fairchild Semiconductor Corporation, 86  
    role at Shockley Semiconductor Laboratory, 83, 86  
Grove, Andrew S., 98, 145, 151, 162, 165-167, 178, 182, 185-189

## **H**

Hannifin, Maurice, 89-92, 102, 104  
    role at Shockley Semiconductor Laboratory, 90-92  
Happ, Bill, 80-81, 83  
    role at Shockley Semiconductor Laboratory, 83  
Harry Sello and Associates, 198-199  
Hewlett-Packard Corporation [HP], 153  
Hodgson, Richard, 127, 153-154  
Hoerni, Jean A., 99, 119, 132  
    and Amelco Semiconductor, 132  
    patents, 119, 132  
    personality of, 86  
    relationship with William Shockley, 86  
    role at Fairchild Semiconductor Corporation, 116-117  
    role at Shockley Semiconductor Laboratory, 86  
Hogan, C. Lester, 169-171, 173, 175, 178-180, 184, 186, 198  
Horsley, Smoot, 91, 102  
Hughes Semiconductor, 109, 115

## **I**

Integrated circuit, 165-166, 170, 174-175, 177-178, 180-181, 184, 195  
Intel Corporation, 169, 178-184, 186-190, 194  
International Business Machines Corporation [IBM], 136-137, 139, 161

## **J**

Jones, R. Victor, 96

## **K**

Kabell, Jack, 166-167  
Kallet, Arthure, 16  
Kilby, Jack S., 99  
Klein, Thomas, 165  
Kleiner, Eugene, 84  
Knapic, Dean, 81, 84  
Kodak, 74  
Kolesnikov, --, 149

## **L**

Last, Jay T., 61, 73, 80, 82, 88, 102, 105, 132  
    patents, 132  
    personality of, 105  
    relationship with William Shockley, 67, 87  
    role at Shockley Semiconductor Laboratory, 83  
Lepselter, Martin, 98

Longo, Thomas, 181, 186  
LSI Logic Corporation, 190, 194

## **M**

Mann, David, 112  
Marvel, Carl Shipp, 24-27  
Massachusetts Institute of Technology [MIT], 168  
McPherson, Alan, 174  
Meieran, Eugene, 168-169  
Mesa transistor, 152, 154, 158  
Metal oxide semiconductor [MOS] technology, 170, 174, 178, 181, 184-185, 187  
Mooney, Mr., 17  
Moore, Gordon E., 61, 63, 66-67, 82, 94, 102, 109, 111, 127, 132, 136, 152, 162, 164-169, 171, 174, 177, 178, 180-182, 185-186, 188-189  
    effect of leaving Fairchild Semiconductor Corporation, 142  
    management style of, 112  
    projects at Shockley Semiconductor Laboratory, 75  
    relationship with Harry Sello, 112  
    relationship with Jean A. Hoerni, 86  
    role at Fairchild Semiconductor Corporation, 111, 113, 131  
    role at Shockley Semiconductor Laboratory, 83  
    scientific background, 75, 108  
    strengths of, 113  
    warns Harry Sello about William Shockley, 71, 86  
Motorola Inc., 99, 119, 130, 156, 158, 171, 179, 181

## **N**

National Semiconductor Corporation, 164, 182, 184, 187  
Nightingale, Florence, 32, 38  
Noyce, Robert N., 10, 55, 61, 63, 66-67, 73, 99, 102, 109, 112, 116, 119, 124, 126, 132, 144, 146-147, 149, 152-154, 162, 165-167, 169-171, 174, 177-178, 181, 186, 188-189  
    camera design, 110  
    effect of leaving Fairchild Semiconductor Corporation, 142  
    interest in music, 102  
    management style of, 120  
    patents, 99, 119  
    personality of, 79, 151  
    publications, 85  
    role at Fairchild Semiconductor Corporation, 111  
    role at Shockley Semiconductor Laboratory, 83  
    strengths of, 113  
    tells Harry Sello he's leaving Fairchild Semiconductor Corporation, 151  
    warns Harry Sello about William Shockley, 71, 86

## O

O'Meara, William, 194  
Olivetti, Roberto, 120-121, 153, 159

## P

Philco Corporation, 153  
Philips Research, 173-174, 177-178, 196-197  
Planar transistor, 152, 154-155, 158, 177  
Polytechnic Institute of Milan, 153  
Price, C.C., 26

## R

Radio Corporation of America [RCA], 153, 170, 181, 185  
RCA Semiconductor, 128, 140  
Redford, Robert, 198  
Roberts, C. Sheldon, 61, 80, 82, 88, 102  
    relationship with William Shockley, 67  
    role at Shockley Semiconductor Laboratory, 83  
Roberts, Thomas, 191-193, 195, 197  
Rodebusch, W.H., 26, 32, 34-35, 38  
Rogers, Donald, 123, 152, 154-162, 164

## S

Sah, C.T., 55, 84-85, 90, 93-96, 102-104, 106, 111-112  
    leaves Shockley Semiconductor Laboratory, 104  
    personality of, 85  
    publications, 85, 94, 95  
    relationship with William Shockley, 85  
    role at Fairchild Semiconductor Corporation, 112  
    role at Shockley Semiconductor Laboratory, 84, 85, 93  
Sanders, Walter Jerry III, 162, 165  
Schlumberger Ltd., 191-197  
Scientific Data Systems [SDS], 170  
Sears, Roebuck, and Company, 21, 133, 180  
Seeds, Robert, 166-167, 169, 174, 181  
Sello, Harry  
    bilingual background, 7  
    decision to focus on chemistry, 24  
    early interest in chemistry, 16-18  
    early interest in music, 12  
    early interest in organic chemistry, 19  
    early interest in reading, 7  
    early interest in sports, 14-15  
    early scientific experiments, 16-17  
    early work experiences, 15, 21, 23

electromigration, 137-140  
 family background, 1-5  
 father, 1-12, 14, 23, 36-37  
 first project at Shockley Semiconductor Laboratory, 73  
 first visit to Shockley Semiconductor Laboratory, 71  
 German language, interest in, 29  
 Gordon Research Conference, 52  
 grammar school experience, 14  
 high school education, 17, 18, 22  
 influence of Paul De Kruif's *Microbe Hunters*, 16  
 influence of Arthure Kallet's *One Hundred Million Guinea Pigs*, 16  
 influence of GI Bill, 47  
 influence of Mr. Mooney as mentor, 17  
 invitation to Fairchild Semiconductor Corporation, 88, 90  
 junior college experience, 18-19  
 leaves Shockley Semiconductor Laboratory, 102  
 life in Berkeley, 56  
 master's thesis, 39-40, 43  
 military service (U.S. Navy, 1944-1946), 44, 46-47  
 mother, 1-6, 8, 12, 21, 37  
 musicianship (cello), 22-23  
 negotiations in Russia, 146-148  
 paternal grandfather, 3, 8-9, 37  
 politics of, 11  
 projects at Shockley Semiconductor Laboratory, 73, 75, 79, 81  
 publications, 85, 94-95, 137  
 psychological testing requirements to join Shockley Semiconductor, 62-63, 70  
 qualifications for role at Fairchild Semiconductor Corporation in Italy, 121  
 receives Ph.D., 48  
 religious background, 8-9  
 role at Fairchild Semiconductor Corporation, 109-113  
 role at Fairchild Semiconductor Corporation in Italy, 113, 115, 119, 121-122, 124-127, 131  
 role at Fairchild Semiconductor Corporation in Palo Alto, 131-132, 134-136, 140  
 role at Shockley Semiconductor Laboratory, 94  
 semiconductor, introduction to, 43  
 Shell Development Company (1948-1957), 49-50, 53  
 Shell Development Company fellowships, 43, 47  
 sister, 2  
*Tempest in a Test Tube* television series (1956-1957), 56-58, 144  
*This Week in Science*, 144  
 travels in Russia, 10  
 University of Illinois (1938-1942) education, 22, 27, 29  
 University of Missouri (1942-1944) education, 32-34, 38-39  
 SGS-Thomson, 130  
 Shell Development Company, 43, 48-49, 54, 194

Shepherd, William, 168

Shockley Semiconductor Laboratory, 71-72, 74, 76-79, 82, 90-91, 93, 95-96, 101, 163, 185  
 challenges, 74, 76-79  
 effect of staff departures, 90, 93  
 facility, 82  
 litigation, 101  
 makeup of staff, 61  
 orientation program, 93  
 problems with resist, 71  
 psychological testing for employment, 62-63, 70  
 relationship with Bell Laboratories, 95-96, 101  
 relationship with Kodak, 74  
 relationship with Spinco Division, 91  
 reputation of (1957), 54  
 staff skills, 54  
 suppliers, 78  
 use of carnauba wax, 72

Shockley, William, 54, 56, 61-71, 73-81, 83-86, 89, 93, 96, 102-104, 106-107, 113  
 asked to resign, 107  
 cancels orientation program, 93  
 characteristics of, 62, 67  
 competitiveness, 63-64  
 demands on employees, 102  
 four-layer diode, 67, 75, 77, 102, 106  
 goals for Shockley Semiconductor Laboratory, 78, 89, 104  
 influence, 78  
 management style, 56, 69-70, 80, 86, 113  
 offers job to Harry Sello (1957), 54, 62  
 paranoia, 83, 103, 106  
 personality of, 69-70, 74, 78-79, 89, 106  
 publications, 85  
 relationship with Bell Laboratories, 96  
 relationship with C. Sheldon Roberts, 67, 80  
 relationship with Chih-Tang Sah, 85  
 relationship with Gordon Moore, 80  
 relationship with Jay T. Last, 67, 80  
 relationship with Robert N. Noyce, 80  
 relationship with senior scientists, 63  
 relationship with Shell Development Company, 54  
 reputation of, 65-66, 107

Signetix Corporation, 196-197

Silicon gate technology, 165, 174, 177-179, 181-182

Societa Generale Semiconduttore [SGS], 121, 123-125, 127-130, 146-147, 152-156, 158-159, 163-167, 170-172, 177, 199

Sporck, Charles E., 113-114, 125, 127, 145-146, 151, 162, 164-165, 180, 197

- background of, 114
- leaves Fairchild Semiconductor Corporation, 145-146
- management style of, 114
- role at Fairchild Semiconductor Corporation, 113

Sprague Electric Company, 164

Stern, Allen Edwin, 32-33, 38-42, 47

## **T**

Taylor, Marion, 50, 54

Telettra Comunicazioni Srl, 120-121, 153, 159

*Tempest in a Test Tube* (movie), 144-145

Texas Instruments Inc. [TI], 97-100, 118-119, 130, 156, 158, 181, 185, 193

*This Week in Science* (movie), 144

Tremere, Doug, 93-95, 106

- publications, 94-95
- role at Shockley Semiconductor Laboratory, 93-94

Troyer, Gene, 82, 84

- role at Shockley Semiconductor Laboratory, 84

Tucker, Ross, 143, 168-169

Tungstram Company, 175-176, 198

## **U**

University of Illinois, 18, 20, 22, 24, 27-29, 168

- relationship with DuPont Company, 27

University of Missouri, 32-34, 38-39

## **V**

Vaughn, William, 49-50

Vineyard, George, 34

## **W**

Walker, Robert, 181, 194

Wells, George, 176

Western Electric, 95, 98, 101

Whittier, Ronald, 182-183, 189

Widlar, Robert, 165

## **Y**

Yurash, Bernard, 168

## **Z**

ZiLOG, Inc., 194, 196