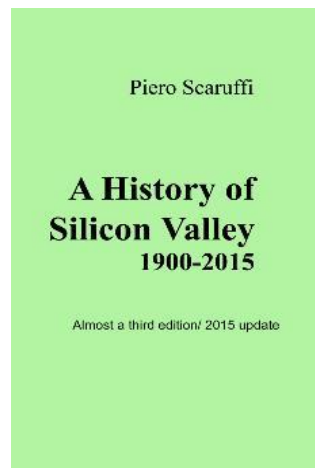


A History of Silicon Valley

The Greatest Creation of Wealth in History
(An immoral tale)

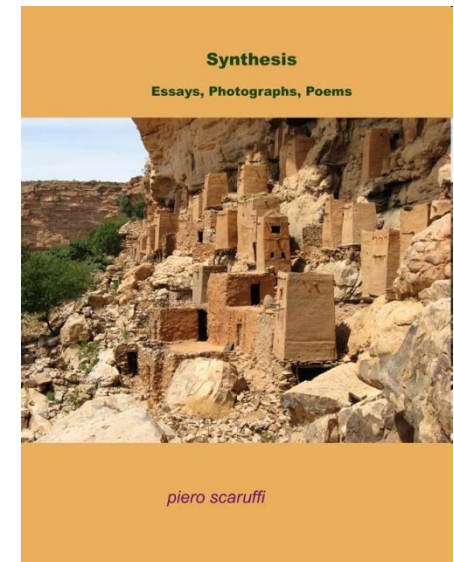
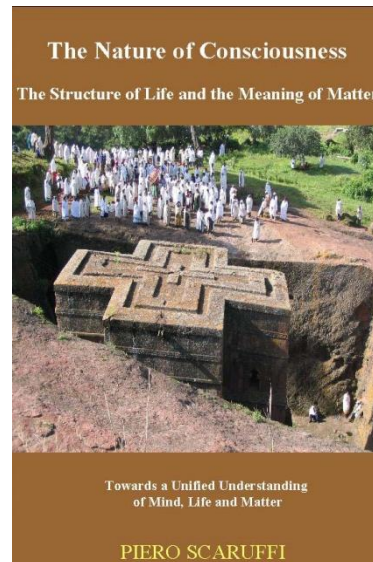
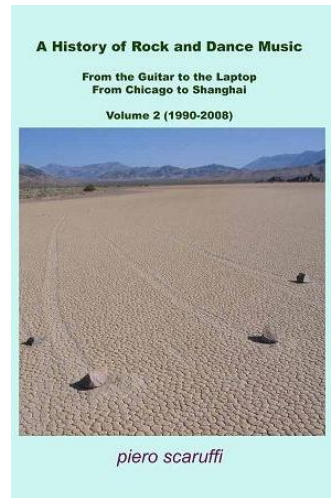
being a presentation by piero scaruffi
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adapted from the book “A History of Silicon Valley”



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- Cognitive Scientist
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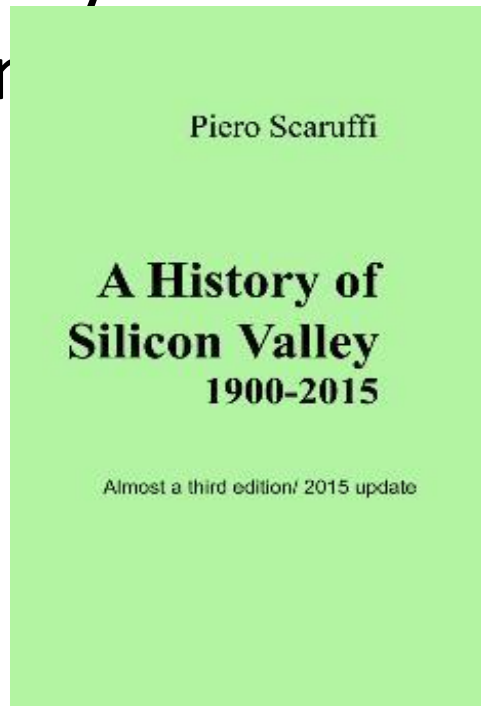


This is Part 5

- See <http://www.scaruffi.com/svhistory> for the index of this Powerpoint presentation and links to the other parts
 - 1900-1960
 - The 1960s
 - The 1970s
 - The 1980s
 - The 1990s
 - The 2000s

What the book is about...

- The book is a history of the high-tech industry in the San Francisco Bay Area (of which Silicon Valley is currently the most famous corner)



The Internet Age

- 1991: Tim Berners-Lee invents the World-wide Web
- 1991: The US government enacts the “High-Performance Computing and Communication Act”
- 1993: Mosaic (funded by the “High-Performance Computing and Communication Act”), later renamed Netscape in Silicon Valley
- 1994: WebCrawler (search engine)
- 1995: The US government blesses the commercial use of the Internet

The Dot Coms

- The importance of Netscape's browser:
 - Free for ordinary users
 - Illiterate computer users can browse the Web the same way that a pro does
 - The non-intuitive cluster of digital information that has accrued on the Internet becomes intelligible to ordinary people
 - More and more people are motivated to add content to the Web

The Dot Coms

- The importance of Netscape's browser:
 - The personal computer boom of the 1980s has placed a computer in millions of households and the browser turns them into the audience of the Web
 - The computer monopolies are forced to adopt open standards for the Web

The Dot Coms

- Netscape IPO (1995)
- Yahoo (1995)
- Excite. AltaVista (1995), Hotbot (1996), Google (1998)
- Java (1995)
- WebLogic (1995), Apache (1996)
- Craigslist (1995)
- HotMail (1996)
- GeoCities (1995)
- eBay (1995)
- Netflix (1997)

Hotmail's Lesson

- Founded by hardware engineers: a user's idea, not a technological idea; a sturdy no-nonsense "product"
- Advertising as a source of revenues
- Internet startups offer free services because their real product is the user base
- The boom of the Web is not a consequence of the Internet but of the boom in advertising: cable television revenues stage an 82% growth rate in 1994-95 just when the Web is maturing

Connecting the World

- Beneficiaries of the age of networking: Cisco, 3Com and Bay Networks
- Fiber-optic boom
- Overcapacity dramatically lowers the cost of broadcasting information, thereby increasing the motivation to broadcast information
- The fiber-optic rush creates on the Internet the equivalent of the freeway system created by the US government in the 1950s
- The vast fiber-optic infrastructure connects the USA to India too, thus accelerating the process of outsourcing IT jobs to India

The Mobile World

- General Magic (1990) to put the power of a real computer into the hands of a casual mobile user connected to a “cloud” of services
- Apple Newton (1993): a pen-based tablet computer with software for handwritten recognition
- Apple QuickTake 100 (1994): the first camera that can download images into a personal computer
- SoftBook Press ebook reader (1996)
- Palm Pilot (1996)

E-commerce

- CommerceNet

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APRIL 18, 1994



From the Ether / Bob Metcalfe

Internet goes commercial with CommerceNet

Give \$150 to a doctor, a teacher, a panhandler, and then watch whether the first thing they buy is a month on the Internet. Not likely, which proves to most of us outside Washington that the information superhighway will *not* find its earliest and best uses in health, education, or welfare. These are areas where the problems are structural and unlikely to be solved with a little TCP/IP or even a lot more money.

Keeping in mind where the money for health, education, and welfare comes from, I say the priority should be on making the Internet useful in commerce.

So happily, last week, **Enterprise Integration Technologies** (EIT) in Palo Alto, Calif., launched CommerceNet, which, according to EIT CEO Marty Tenenbaum, is "the first large-scale market trial of electronic commerce on the Internet."

CommerceNet will let Internet users browse a hyperlinked web of formatted "pages" containing company directories, referral services, catalogs, and product demonstrations. Users will solicit bids, place orders, collaborate on engineering, coordinate production, and schedule transportation. CommerceNet promises to streamline procurement, cut costs, and shrink development cycles, first for

net access kits. The low end will use 128Kb-per-second (Kbps) ISDN at \$150 per month, including all access, backbone, and equipment charges.

CommerceNet will provide industrial-strength upgrades of NCSA Mosaic clients and Worldwide Web (WWW) servers, including RSA public-key cryptography to handle such heretofore missing Internet services as encryption, user authentication, digital signatures, and time stamps.

CommerceNet will provide, with its partners in the financial services industry, on-line credit cards, debit cards, and checks.

And CommerceNet will provide top-level directories — Mosaic/WWW home pages — as entry points into its electronic marketplace. If you want to get started today, point Mosaic at <http://www.commerce.net>.

Tenenbaum was visibly surprised when I asked about what worries him most. Competition? No. Internet capacity? There will be plenty, somehow. Software bugs? The code has been frozen for days. Unrealistic expectations following last week's launch? OK, yes, there is the problem of "success failure."

Tenenbaum didn't really sound worried about anything, which I found fascinating. He did not, for example, say he is worried about, of all things, money.

Which reminds me of Washington.

by local governments and private industry. With \$12 million, Tenenbaum *should* have fewer worries than most start-up CEOs.

CommerceNet is on the right track and will make great strides in commercializing the Internet, I'm sure. And they're using Mosaic, which was my choice as Industry Milestone of 1993. So I'm all for CommerceNet, except that I can't get comfortable about the feds being so deep into NII, especially with such large amounts of our money.

What about other companies — those lemonade stands in cyberspace — that also are, for example, planning to harden Mosaic/WWW for commercial use? How will they compete against EIT's taxpayer-supported development? Take Quarterdeck ([310] 392-9851), whose industrial-strength Mosaic is due out by the end of this year. Quarterdeck knows how to write, test, ship, sell, and support competitive commercial software, so maybe, hopefully, they'll do just fine.

And shouldn't we be concerned that CommerceNet is being funded by the same feds who made OSI their protocol standard while supporting the development of TCP/IP? Who just made the Clipper encryption chip a federal standard — which CommerceNet does not plan to use? And who prohibits export of the RSA cryptography that EIT is planning to use in CommerceNet?

INFO WORLD

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Meanwhile elsewhere...

- Finland implements a GSM network for mobile computers (1991)
- Nokia introduces SMS (1993)
- Linux (1991)
- Nokia's 9000 Communicator (1996), the smartphone
- The "Telecommunications Act" allows cable television providers to offer Internet services (1996)
- MapQuest's mapping software (1996)
- SixDegrees' social networking software (1997)
- The Y2K Bug (1999)
- Napster (1999)

Meanwhile elsewhere...

- Human Genome Project (1992)

The Nasdaq Crash

- Between 1998 and 1999 venture-capital investments in Silicon Valley firms increases more than 90%
- The Internet and Y2K booms generate a bubble that bursts in 2000

The Nasdaq Crash

- Silicon Valley before the bust:
 - Personal computers: HP and Apple dwarfed by IBM, Compaq, Dell and Japanese
 - Videogame consoles: Japan rules
 - Semiconductors: The Far East rules
 - Mobile phones: Europe rules
 - Chips for mobile devices: ARM rules
 - Software: Microsoft and SAP dwarf Oracle
 - Dotcoms: No profits

Next...

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