August 31st

Emanuel Goldberg

Born: Aug. 31, 1881;

Moscow, USSR
Died: Sept. 13, 1970

Goldberg described himself as "a chemist by learning, physicist by calling, and a mechanic by birth." He's primarily remembered for his contributions to photochemistry, photography, and color printing, and was the director of the German camera company, Zeiss Ikon, from 1926.

In 1927, he applied for a patent for his "Statistical Machine" which solved the problem of retrieving records from microfilm. It utilized movie projector technology, punched search cards, and a photoelectric cell for pattern recognition, making it the first electronic document retrieval system. (There had been earlier mechanical optical character readers (OCRs), notably Edmund Fournier d'Albe's Optophone from 1913-1914.)

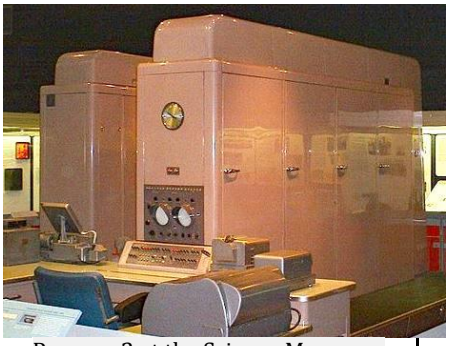
In the late 1930s, the "Statistical Machine" technology was taken up by Vannevar Bush [March 11] for his "microfilm rapid selector", and became the basis for the imaginary Memex device described in Bush's influential 1945 essay "As We May Think."

Hugh McGregor Ross

Born: Aug. 31, 1917;

Nairobi, Kenya
Died: Sept. 1, 2014

Ross worked on the Pegasus, a mid-1950's vacuum tube machine designed by Christopher Strachey [Nov 16] and built by Ferranti [Feb 27]. It became quite popular in the UK, with Ferranti selling 26 Pegasus 1's and 14 Pegasus 2's. The Pegasus 2 on display at London's Science Museum remained in operation from 1959 until early 2014.



Pegasus 2 at the Science Museum, London. Photo by LeoNerd.

In the early 1960s, Ross was involved in the standardization of ASCII and worked closely with Bob Bemer [Feb 8]. As a consequence, ASCII was originally known as the Bemer-Ross Code in Europe. Ross also worked on several ASCII extensions, including the Universal Coded Character Set (UCS) which could support just over 130,000 symbols. UCS later influenced the design of Unicode.

Ross was an expert on the non-canonical "Gospel of Thomas", which consists of over 100 sayings attributed to Jesus.

Willis Howard Ware

Born: Aug. 31, 1920;

Atlantic City, New Jersey
Died: Nov. 22, 2013

After WWII, Ware joined the Institute for Advanced Study at Princeton to work with John von Neumann [Dec 28] on building the IAS [June 10]. In 1952 he moved to RAND [Oct 1], where he co-designed the JOHNNIAC [Feb 00].

In later years he became interested in computer-related privacy and security. In 1969, he chaired an ARPA [Feb 7] task force that reported on computer security safeguards for classified information. He also chaired a 1972 committee that developed the codes of practice and became the US Privacy Act of 1974.

In a 1972 *Los Angeles Times* interview, he remarked that, "the computer is beginning to make it possible to find out more about you in fewer places." He also predicted: "what we'll all give up is control over how essentially private information about ourselves is used. We'll gradually get used to that."

ACM Chess

Aug. 31-Sept. 3, 1970

The ACM hosted the first major computer chess tournament at the Hilton Hotel in NYC during its 25th Fall Joint Computer Conference. Six programs competed, most of them via long distance phone links to their host mainframes.

The winning software, CHESS 3.0, came from Northwestern University. It was coded by David Slate, Larry Atkin, and Keith Gorlen in a mix of FORTRAN IV and the COMPASS assembly language and ran on a CDC 6400 [Sept 00].

The event was organized by Monroe (Monty) Newborn, who later served as the chairman of the ACM Computer Chess Committee, and helped organize the Kasparov/Deep Blue matches on [Feb 10] 1996 and on [May 11] 1997.

TMX 1795

Aug. 31, 1971

Some historians argue that Texas Instruments' (TI) TMX 1795 was the first 8-bit microprocessor, not the Intel 8008 [April 00].

In 1969 Computer Terminal Corporation (CTC) was developing the Datapoint 2200 programmable terminal [Nov 27], and asked Intel to build a chip for its main board. To hedge their bets, CTC also had TI independently build a second version of the chip.

Intel's IC became the 1201 (which would later evolve into the Intel 8008 [April 00]), and

TI's work became the TMX 1795. Both microprocessors were designed to be compatible with the Datapoint 2200's 8-bit instruction set and architecture.

Gary Boone of TI filed a patent for the TMX 1795's fabrication machine on this day, and was awarded US Patent 3757306 on Sept. 4, 1973.

Ted Hoff [Oct 26] later claimed that TI had copied a fair bit of Intel's design, pointing out as an example that the 8008 had a bug in its RESTART instruction which was also present in Boone's patent.

Nevertheless, in 1971, and again in 1976, Intel and TI signed patent cross-licensing agreements for their chips, with Intel paying royalties to TI for Boone's patent.

In June 1971, TI launched a media campaign for the TMC 1795 (a renamed TMX 1795 , which described it as a "central processor on a chip". Initial sales were poor, and TI soon stopped marketing it, focusing instead on its more profitable calculator chips. So, although the TMX 1795 may have been the first 8-bit microprocessor, the 8008 was definitely the first commercially successful one.

Roger's Version

Aug. 31, 1986

"Roger's Version' is a novel by acclaimed American author John Updike which deals with such weighty matters as reason vs. faith. In particular it pits Roger Lambert, an aging professor of divinity, against Dale Kohler, an earnest young computer scientist who believes that he has found irrefutable evidence of God's existence.

Publisher's Weekly was unimpressed: "there is more arcane computerology here than readers, including his most devoted, can digest by force-feeding, and probably more theology as well."

Lotus Agenda

Aug. 31, 1988

Lotus Agenda was a MS-DOS-based personal information manager (PIM), designed by Mitch Kapor [Nov 1], Ed Belove, and Jerry Kaplan [April 9].

It was an ambitious attempt by Lotus [Jan 26] to create a "spreadsheet" for partially or completely unstructured information. It was based around items, categories, and views, together with user-defined rules for how the items was categorized and viewed.

Unfortunately, ordinary users were often overpowered by the program's steep learning curve; sales were disappointing, and Lotus soon stopped development. However, the company persevered and eventually released the much more popular Lotus Organizer, which used a more familiar paper-based metaphor.

Aldus Merged with Adobe

Aug. 31, 1994

Aldus' PageMaker [July 15] was one of the three cornerstones of the 1980s desktop publishing (DTP) revolution, the other two being Postscript by Adobe [Dec 00] and the LaserWriter [March 1] from Apple. However, PageMaker eventually lost out to QuarkXPress (released in 1987) which at one point controlled 95% of the DTP software market. Adobe also had a few problems during the late 1980s, mainly because of not offering their own DTP application built on top of Postscript.

On this day, Aldus' "merger" with Adobe was finalized. In truth, it was less of a merger and more of an acquisition of Aldus by Adobe. Adobe soon began work on a DTP application codenamed "Shuksan" intended to be a "Quark killer". It was released as Adobe InDesign 1.0 in 1999, and did indeed wrestle back domination of that market.

Depression and Loneliness

Aug. 31, 1998

The *American Psychologist* journal published the results of a $1.5 million study conducted by a team led by Robert Kraut at CMU which examined the social and psychological impacts of the Internet on 169 people in 73 households.

Noted takeaways included greater use of the Internet being associated with declining communication with family members, reduced social circle size, and increased feelings of depression and loneliness.

Furniture PC

Aug. 31, 1999

SOZO Design, founded by ex-Atari [Nov 23] industrial designer Ira Velinsky, unveiled the Ottoman PC, the world's first computer/ottoman combination. (An ottoman is a padded foot-rest.) Velinsky termed this an example of "furniture PC".

The Ottoman PC. (c) SOZO Design.

Opening the ottoman revealed a 15-inch color monitor in the lid and an Intel Pentium III PC [Feb 26] and wireless keyboard. SOZO offered a range of cover patterns for the lid.

In the 1980s, Velinsky had been involved with the case designs for the Commodore 64 [Jan 7] , the 128, and the first Atari STs [Jan 10].