

**THE HISTORY OF SHORTHAND
And
THE EVOLUTION OF SHORTHAND MACHINES**

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Introduction

This presentation is the story of how each generation of mankind knows what preceded it; how knowledge has been shared across civilizations and among societies. It is about the Preservation of Thought.

The preservation of thought began 5000 years ago; of *spoken* thought, 2000 years ago.

Civilizations have scrutinized, modified, and improved upon recorded thought in order to improve.

And so this is the story of one of mankind's oldest professions – ours – embracing all methods of speech capture, impartially, accurately, and reliably preserved by the dedicated Guardian of the Record.

This presentation starts at a contemporary ending point, at The Gallery Of Shorthand, a shorthand "museum" dedicated to telling the world about our professional legacy and highlighting the contributions of shorthand artisans.

Following the lead of early shorthand historians, The Gallery uses Ten Epochs – or pivotal historical segments – to trace our ancestry. After explaining these, I shall detail the ninth epoch, the Evolution of Machine Shorthand.

HISTORY OF SHORTHAND

Evolution of A Timeless Profession

Few professions are as old and time-honored as shorthand reporting, for it is the act of writing which has provided to all civilizations the knowledge of earlier thoughts and utterances.

EPOCH I

ANCIENT SUMERIAN SCRIBES

3500 BC

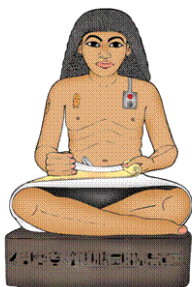


The earliest form of written expression began in 3500 BC, in Southeastern Mesopotamia (now Iraq), by one of the earliest civilizations. By 3100 BC the Sumerians developed cuneiform script into a useable system of 2000 word-symbols, later adapted to other languages. Ancient Sumerian Scribes were entrusted to preserve all important thought, using a stylus to carve wedge-shaped characters into clay tablets later hardened by the sun.

EPOCH I

ANCIENT EGYPTIAN SCRIBES

3200 BC



The Egyptians devised two scripts, Hieratic (3200 BC) and Demotic (650 BC), as alternatives to their complex hieroglyphic form of writing. Although based on hieroglyphs, these two scripts employed more simplified symbols.

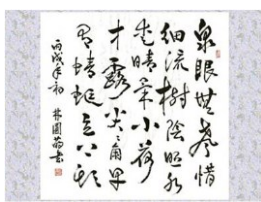
Ancient Egyptian scribes, as those in Sumer, were considered among the literary elite, and many became government officials. Typically, scribes wrote business and property transactions, kept records of taxes and laws, copied documents, and wrote instructions for government officials.

Similar to cuneiform, most Egyptian writings were carved in mud or clay tablets and then hardened by sunshine. Those considered important to retain were rewritten on papyrus and the original tablets reused.

EPOCH II

CHINESE SHORTHAND

206 BC



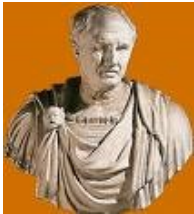
CAOSHU and XIGSHU

Chine Grass Script (caoshu) and Running Script (xigshu) first appeared during the Han Dynasty (220-206 BC) of Imperial China. With these characters, strokes could be joined and several characters written with one continuous flow.

During Imperial China's extended history (221 BC-1912 AD), clerks came to use abbreviated, cursive forms of characters to record court proceedings and criminal confessions. These "*shorthand*" records were then used to create more formal transcripts.

One cornerstone of court proceedings was that all confessions had to be acknowledged by the accused's signature, personal seal, or thumbprint. Preparing these proceedings required fast writing.

EPOCH III **ROMAN SHORTHAND SCRIBES** **63 BC**



The power of preserving the spoken word did not escape Ancient Rome, for oratory was an important part of Roman culture. Minutes of the proceedings of the Senate were written from memory and occasionally published, although unofficially. Ancient Roman Scribes did not capture extemporaneous thoughts, for no system yet had been devised that was capable of doing so – until 63 BC. That is when Cicero, great orator of Rome, invented the first system of short writing – erroneously attributed by many historians to Cicero's slave Marcus Tillius Tiro, for whom it is named: *Tironian Notes (Notae Tironianae)*.

Tironian Notes used letters to represent common words, and left out letters that could be spared, particularly vowels, in order to save time. Sometimes initials or other parts of several words were joined. Speed was achieved by rarely removing the hand from the wax tablet.

Responding to Senate colleagues, Cicero and Tiro taught others and placed them in different parts of the Senate to write speeches of others – leading to birth of the first corps of shorthand!

EPOCH IV **ABOLITION OF SHORTHAND - 500 AD** **RENEWED INTEREST 1180 AD**



Shorthand was considered cryptography during the Middle Ages and its use forbidden. The Middle Ages, or Dark Ages, were days of superstition, ignorance, and bigotry. Shorthand was seen as cryptography (secret writing), "diabolical," even black magic and witchcraft, and its practitioners often were persecuted. Emperor Justinian forbade its use after 534 AD.

Although shorthand was generally forbidden, the shorthand skills of monks were both permitted and encouraged. Little would be known of the life and times of the medieval world without them.

Renewed interest in shorthand began when Thomas Becket, Archbishop of Canterbury, encouraged renewed research into Tironian Shorthand, prompted by an interest in preserving pulpit preachings.

John of Tilbury, monk, scribe, and notary, responded to Becket's call, and published an abbreviated word system that began a transition to later short systems of writing. Additional efforts would lay dormant for another 300 years.

EPOCH V **REVIVAL OF SHORTHAND** **1588**

Early English-Language Shorthand Systems
The Vital 250 Years



Four hundred years after Thomas Becket sparked an interest in Tironian Notes, eagerness to preserve sermons created renewed desire for fast systems of writing.

Timothe Bright's 1588 invention of the first useable English-language method triggered a flurry of writing systems. Inventors and teachers increased rapidly, each building on the work of predecessors.

Samuel Taylor was perhaps the greatest of the early masters. Two hundred years after Timothe Bright, Taylor invented a system which became the most extensively used for the ensuing 60 years.

EPOCH VI **FIRST PRACTICAL ENGLISH SYSTEMS**

1837 – Phonography (Pitman)
1888 – Light-Line Phonography (Gregg)



In the evolution of shorthand, Great Britain is rightly the birthplace of the first practical systems. Two inventors stand above all others as the most pivotal in shaping the profession of shorthand reporting – Sir Isaac Pitman and Dr. John Robert Gregg. The shorthand system created by each was based on phonetics, and the functionality of each led to enormous followings. Each endured for decades and demonstrated the ability of users to achieve unparalleled records of speed and accuracy.

Recognition of shorthand's place in Parliament and the courts, formal acknowledgement of the verbatim record, and desire to preserve religious preaching set the stage for widespread acceptance. Increased need for stenographers in the business world resulting from the Industrial Revolution led to large-scale proliferation.

ISAAC PITMAN
1837 SOUND-HAND/PHONOGRAPHY

One hundred years after Samuel Taylor, a student of that system set out to design a more functional system, conducive to legibility and rapid writing. In 1837, at age 24, Isaac Pitman's system was published as *Stenographic Sound-Hand*. He renamed it *Phonography, or Writing by Sound* in 1840 after several modifications. It became widely known simply as *Pitman Shorthand*. In 1852 Brother Benn brought the Pitman shorthand system to America. By 1889, about 97 percent of all US stenographers wrote Pitman and it was adapted to more than 30 other languages, at least 10 in India.

JOHN ROBERT GREGG
1888 LIGHT-LINE PHONOGRAPHY

Fifty years after Pitman shorthand was announced, in 1888 John Robert Gregg published his system as *Light-Line Phonography*. This 21-year-old initially insisted that its application was "*for business correspondence instead of for the highly specialized work of the shorthand reporter.*"

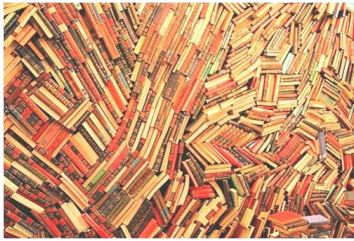
Gregg brought his system to America in 1893, and renamed it simply *Gregg Shorthand*. Gregg declared that this more mature version was "*rapid enough to reproduce verbatim the fastest oratory.*" The 1910

Minor Cup shorthand victory of Gregg speed writer Frederick Gurtler gave early credence to this claim.

A system also rooted in phonetics, Gregg Shorthand was easier to write than Phonography because the characters were based on elements of ordinary longhand, versus Pitman's curious shaded geometric characters. Gregg became the predominant shorthand system in America.

EPOCH VII

PROLIFERATION OF SHORTHAND IN EUROPE



Germany, Italy, and France were at the forefront of shorthand development, lagging only behind England. 16th Century Europeans saw shorthand as a way of spreading the word of God by preserving sermons. In 18th Century England, it was sparked by increased popular demand to read the *actual* debates of Parliamentary sessions, fueled by slanted summary newspaper accounts. The worldwide Industrial Revolution created enormous need for stenographers in order to ease the burgeoning paperwork.

Europe had about 3,000 shorthand systems by 1883, including hundreds in the English language. The majority could be taught to the masses, permitting widespread proliferation.

EPOCH VIII

PROLIFERATION OF SHORTHAND IN AMERICA

Pitman's system appeared in America in 1852. Gregg's in 1893. Before then the only known US shorthand system was *A Shorthand Book*, authored by John Radcliff in 1650. In America, the growth of shorthand consisted mainly of authors perfecting existing systems and users meeting demands of the business, government, and legal communities for their skills. As the Industrial Revolution swept America, the business world needed clerical help to cope with the overwhelming paperwork. The newly invented typewriter also needed operators. Shorthand writers who had the ability to type were therefore in great demand.

EPOCH IX

MECHANIZED SHORTHAND

Early Attempts

Sketchy details exist about early attempts to invent shorthand machines and keyboards, and uncertainty surrounds whether only prototypes were constructed. Here is what The Gallery has found.

1827 – Gonod (Clermont-Ferrand, France)

Designed a working model to produce signs on paper by which words might be represented with "*fidelity, precision, with the speed of speech, and with perfect regularity in the writing.*"

1829 - Baron Karl de Drais de Sauerbrun (Germany)

Invented a shorthand machine that punched holes in a paper strip.

1830 – Celestino Galli (Italy)

Developed the "**Potenografo,**" a device which printed on a paper strip.

Machines were also designed by Italy's Luigi Lamonica (1867) and Isidore Maggi (1871).

EPOCH X **SHORTHAND IN THE 21ST CENTURY**

Using sophisticated shorthand machines, specially designed computer software, and state-of-the-art wireless and internet technology, skilled reporters instantly produce text from speech and simultaneously transmit it anywhere in the world.

REALTIME REPORTING

In the US, the application of this is commonly observed in legal settings, such as trials and depositions, where reporters immediately provide text of proceedings locally and to remote sites.

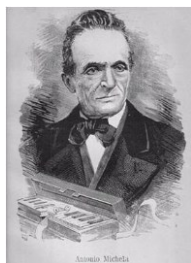
CLOSED CAPTIONING

"*Subtitles*" of live broadcasts seen on a TV monitor are the work of a shorthand reporter.

CART – Communications Access Realtime Translation

To contrast this technology with captioning, CART is one reporter instantly converting speech to text and displaying it on a screen for one viewer or many.

EVOLUTION OF SHORTHAND MACHINES (Expanding Epoch IX)



1863 Michela Shorthand Machine ITALY **Inventor: Antonio Michela Zucco**

The world's first successful chorded shorthand machine, his first prototype was built in 1851. It has been used continuously in the Italian Senate since 1880.



La Michela.

1875 The Stenographic Machine – FRANCE

Little is known of this recently-unearthed machine. Its 12 black keys printed dashes, and its 12 white keys printed dots. "Supplementary signs" could be added to any stroke using a key stroked with the wrist.

1879 Bartholomew Stenograph – USA **Inventor: Miles M. Bartholomew**

First practical English-language shorthand machine, its chorded keyboard used dot/dash codes to form one letter at a time. Top writing speed was about 150 wpm.



1886 Anderson Shorthand Typewriter **Inventor: George Kerr Anderson**

First *word-at-a-stroke* first chorded keyboard and was designed to



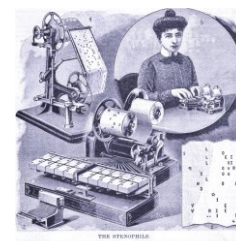
shorthand machine, this is the that printed letters, not codes, write a sound in each stroke.

1897 The Stenotyper – ENGLAND

Earliest English-language device outside of America, this 3-pound machine, made in Germany, produced chorded codes of dots and dashes. It could be used in English, French, German, Latin, and Hebrew, with a top speed of 170 wpm.

1904 Stenophile Bivort – FRANCE

Charles Bivort invented this device for secretarial use. Little is known of its longevity.



1907 Kehoe Stenographic Machine **Inventor: William J. Kehoe**

Last of the mainstream coded machines, this improvement on the Bartholomew machine claimed ability to write at 150 wpm.

1908 Grandjean – FRANCE

Madame Marc Grandjean invented this ruggedly-built French-language device. In continuous use since 1910, mass production began in 1923. The 1994 TempoSupra, 2003 Nova, and 2008 Reva are computerized.

1911 Chambonnaud Silbetype – FRANCE

Professor M.Chambonnaud invented this revolutionary device with the goal that its output could be read by anyone, not only the user. It was used in seven languages.

1911 Ireland Stenotype

Inventor: Ward Stone Ireland

This device forever defined the mainstream keyboard and remains the English-language industry standard. It used a two-row, tripartite key arrangement of initial consonants, final consonants, and middle vowels to create greatest output with the fewest strokes.



1916 The Shortwriter

Inventor: Alrah B. Edwards

Used a two-color ribbon, alternating colors to represent letters missing from the keyboard.

1917 National Shorthand Machine

Inventor: Ward Stone Ireland

Ward Stone Ireland patented and produced this machine independent of The Stenotype Company. It used a different arrangement of consonants and added subordinate keys.

1917 Master Model Three The Stenotype Company

This improvement on Ireland's mechanism added a numeral-shift bar, a continuous-fold paper supply housed within the body cavity, and a pullout paper-capture tray.

1921 Dictatype

Inventor: Paul F. Bourquin

Although used for many years as a 23-key device, this machine was officially introduced in the late 1920s as an 18-key device.

1927 Master Model Four

The Stenotype Company produced this shorthand "*workhorse of the 1930s.*" Although its mechanics at times faltered, its use in the world-famous Hauptman



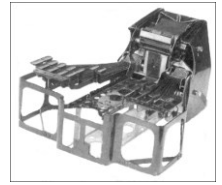
(Lindberg-baby kidnapping) trial catapulted machine shorthand into mainstream reporting.

1930 Smith Stenotype

Designers: Howard B. Smith and Walter

Heironimus

This was a unique redesign of Ireland's machine. To enable immediate readback, it split the keyboard, placing the paper-capture tray between the hands.



1939 Palantype –

Named for French the Palantype was named Fairbanks based Production began after



ENGLAND

teacher *Mademoiselle Palanque*, patented by an English woman on design of the Grandjean. World War II.

1939 Master Model Five – Textolite Molded Shell

ML Larsonneur was winning design in a compete with competing entry. caused breakage of soon replaced with a



engaged to create this award-last-recourse attempt to Stenograph's successful Rapid temperature changes the housing, and the shell was metal case.

1939 The Reporter

Inventor: Thomas Bilyeu

Mr. Bilyeu believed that more keys meant fewer combinations to learn, thus a shorter learning curve. Consonants occupied three rows, and all five vowel keys were used.



1939 Stenograph – Stenographic Machines, Inc.

Stenograph's inaugural machine was the product of Milton H. Wright, and son Robert. Used a light-weight magnesium shell and dependable clutch mechanism, plus silent operation, endless-loop self-inking ribbon.

1940 Master Model Five – Metal Shell

The metal housing cured the Textolite problem, but this heavy, unreliable device did not compete well. It was used until about 1945.

1943 Brevitype

Inventor: Wendell V. Kirkpatrick

This attractive, 3-pound device, printed standard English letters and claimed to *the three fastest writing shorthand, and written*



combine "the best features of methods – typing, machine shorthand."

1946 LaSalle Stenotype

LaSalle engaged Stenograph to manufacture this very popular aluminum black-and-grey machine, bundled with correspondence course educational materials.

1957 Simla – GERMANY

Invented by Dusseldorf Parliamentary Stenographer Heinrich Hermann Bruckschen, the Simla used a tripartite keyboard.



1963 Stenograph –

This machine had shell became the machine of the



Stenographic Machines, Inc. made of Cylolac plastic. This sixties.

1963 Princess-Steno – GERMANY

This chorded machine used 18 lower-case English typefaces to write syllables. Resting on the user's lap, it featured a light touch and was noiseless.

1963 Stenograph Data-Writing Machine

Stenographic Machines, Inc.

This revolutionary device – actually, more of a system than a machine – paved the way for all future computerized shorthand technology.

Engineered by Bob Wright, it placed organ-type switches in the steno machine to sense key strokes, and used a cable to transmit them to a tape recorder. Successors:

1970 DataWriter - Used a black box to capture digital notes on a cartridge. 1974 DataWriter - Replaced the 1970 cartridge with a cassette. 1983 DataWriter – Revamped, integrated design. Data was written to cassette located in a side compartment.



Stenoprint –

The first model supplemental existing keys, cardinal key straightened.



The Hedman Company featured angled vowel keys with a "cardinal" key, extending out between used to indicate long-vowel sounds. The was soon removed and the vowel keys

1971 Stenograph Curved Design

Stenographic Machines, Inc.

Used well into the 1990s, this device remained popular even after computerized machines entered the marketplace.

1977 BaronData StenoConverter – BaronData Systems

BaronData entered the computer transcription arena with this very successful, albeit weighty, device. An elongated case mounted next to the writing machine contained electronics which digitally processed steno and wrote it to a removable cassette.



Successors:

Models: II, III, IV, V, X, TX, Transcriptor

These very popular computerized machines claimed built-in error correction, and high-capacity removable magnetic cassette.

1979 Lectro-Graph – Michael A. Smith, Ben C. Fulkerson

The first shorthand machine to electrically advance the platen.

1980 Steno-Lectric - Stenographic Machines, Inc.

Stenograph’s first electric platen-advance writer, this was an altered 1971 model.

1982 XScribe StenoRam – XScribe Corporation

XScribe captured digital notes on this device, placed beneath a Stenograph Steno-Lectric machine fitted with XScribe’s contact plate. A built-in modem allowed it to transmit data to a computer. Successor machines: FirstCAT, FirstCAT Plus, StenoRAM I, II, III, III-Plus, Ultra, Vision.



1987 SmartWriter - Stenograph, LLC

The first Stenograph machine to capture notes on a floppy disk, it remained a preferred writer for many reporters through the 1990s.

1988 Digitext-ST (“Steno Translator”) – Jerry Lefler

This paperless translated steno the translating 1990s. Successors: Writer 1994, Fon’iks



realtime shorthand machine instantly and set the stage for shorthand machines of the AccuWriter 1989, Impact Writer 1998

1991 Keyboard Input Machines

The 1991 ProModel, from Stenograph, launched this genre of machines, paperless and without onboard display screen, which thus rely on an external computer for readback. Others: 1994 Gemini, 1998 Tréal, 2004 Digitouch, 2007 Lightspeed.



1992 Stentura - Stenograph, LLC

This machine featured onboard translation and an integrated screen. Wireless capabilities were also available. The 2005 version offered AudioSync™, a simultaneous audio track of the proceedings synchronized with steno notes.

1994 Yawei Stenotype – CHINA

On May 19, 1994, Tang Yawei produced China's first shorthand machine.



1998 CASwin – KOREA

This paperless keyboard device, without integrated readback screen, is designed to be used while connected to a computer.

2003 élan Group – Stenograph, LLC

This line includes the élan Mira (paperless) and élan Fusion (with paper).

2009 Diamante - Stenograph, LLC

This shorthand machine improves and sleeker continues the award-machine, the CybraPro.



features keystroke features. Its graceful look winning design of its sister