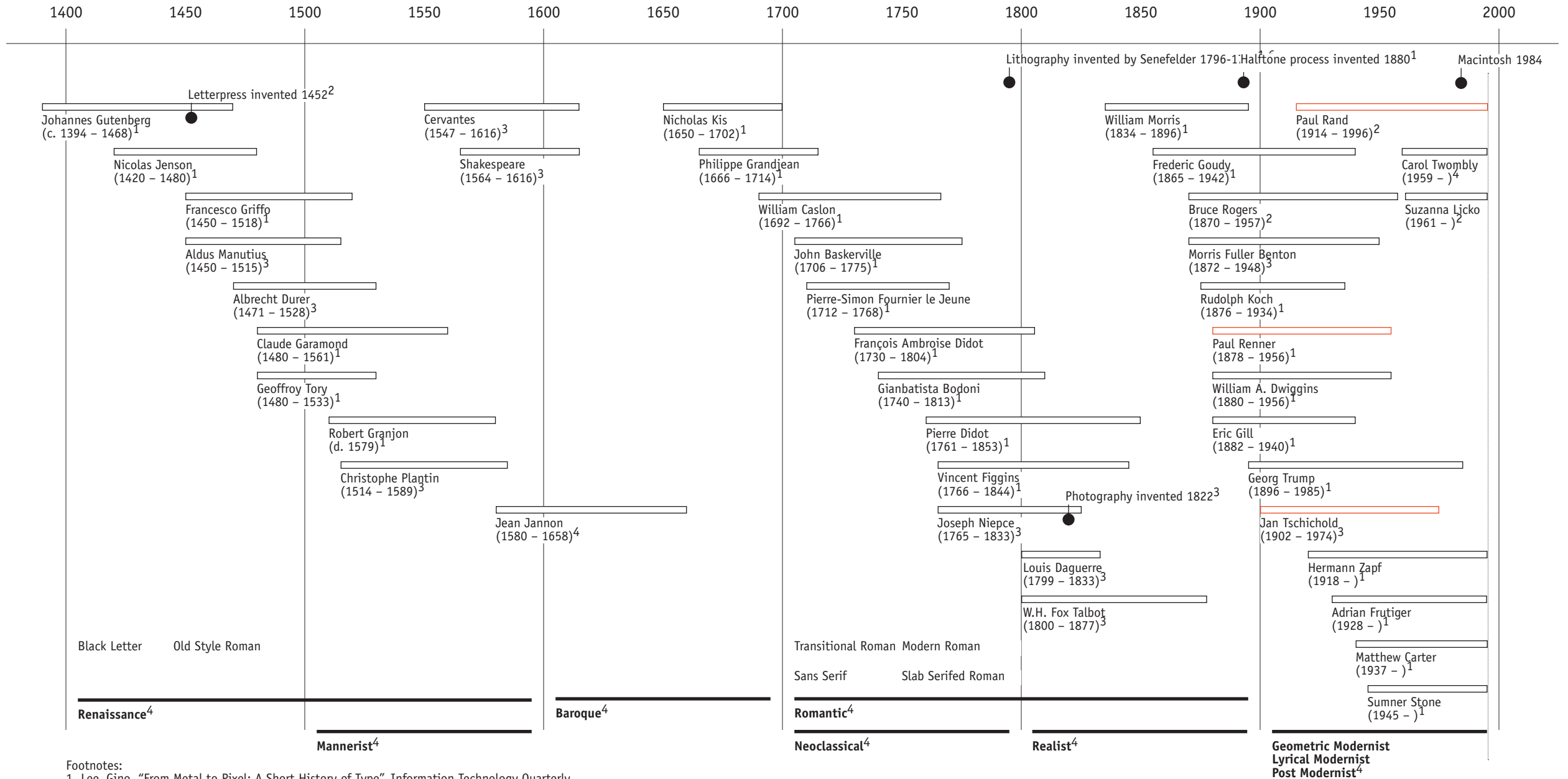


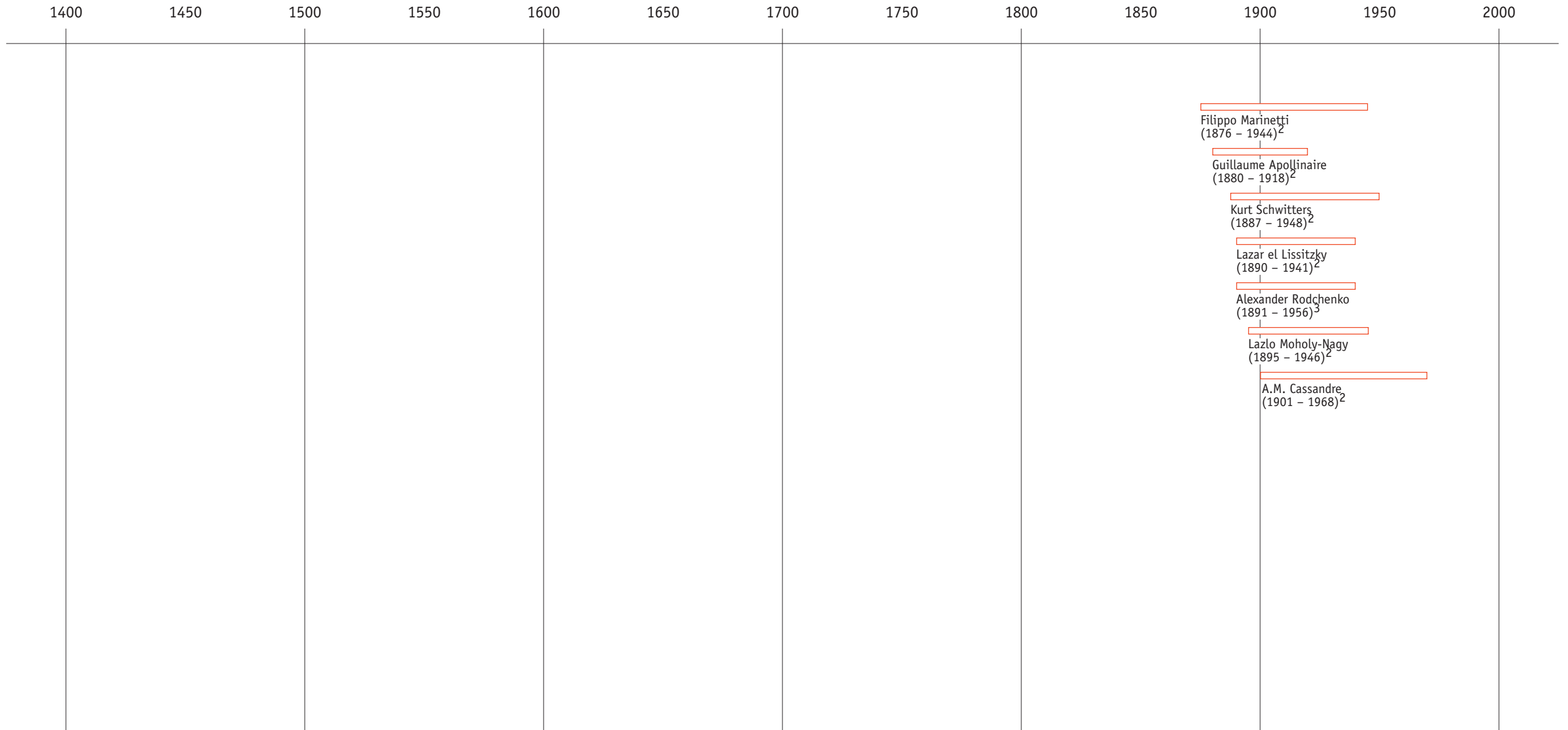
Timeline of Lifetimes of Outstanding Type Designers:



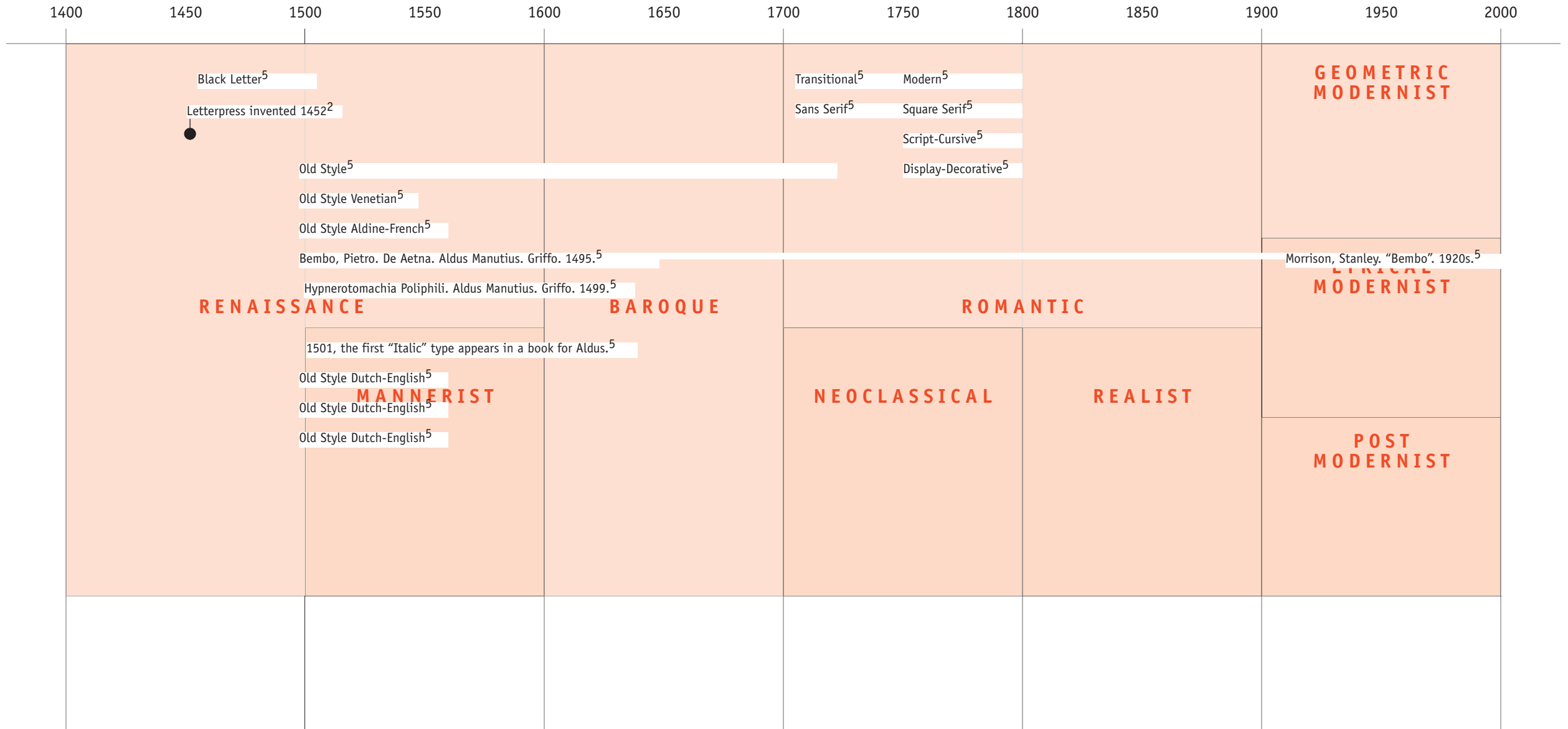
Footnotes:

- 1 Lee, Gino. "From Metal to Pixel: A Short History of Type". *Information Technology Quarterly*. Winter 1991-92, volume X, number 2, page 6. Harvard University.
- 2 Livingston. *Graphic Design+Designers*. Thames & Hudson. London. 1992.
- 3 Meggs, Phillip. *A History of Graphic Design*. Van Nostrand Reinhold. New York. 1983.
- 4 Bringhurst, Robert. *The Elements of Typographic Style*. Hartley & Marks. Vancouver, BC. 1992.
- 5
- 6 Craig, James. *Production For The Graphic Designer*. Watson-Guptill Publications. New York. 1990.

Timeline of Lifetimes of Outstanding Type Designers:



Timeline of Art Historical Periods⁴ and Typographic Classification Systems⁵



Footnotes:

- 1 Lee, Gino. "From Metal to Pixel: A Short History of Type". *Information Technology Quarterly*. Winter 1991-92, volume X, number 2, page 6. Harvard University.
- 2 Livingston. *Graphic Design+Designers*. Thames & Hudson. London. 1992.
- 3 Meggs, Phillip. *A History of Graphic Design*. Van Nostrand Reinhold. New York. 1983.
- 4 Bringhurst, Robert. *The Elements of Typographic Style*. Hartley & Marks. Vancouver, BC. 1992.
- 5 Lawson, Alexander. "Type Classification: A Rational System". *Printing Types: An Introduction*. Beacon. Boston. 1971. Page 64.

Timeline of Lifetimes of Outstanding Type Designers:

1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000
<p>To be added: Pipes, Alan. Production For Graphic Designers, 2nd Ed. Prentice Hall. 1992,1997. from page21 :</p> <p>AD 105 Paper invented in China by Ts'ai Lun 1041 First presses with clay movable type in China 1150 First paper mill opened in Europe, in Xativa, Spain 1400 Koreans printing with metal movable type 1445 Johannes Gutenberg printed first book in Europe 1446 Earliest known copper engraving: The scourging of Christ 1477 William Caxton issued first dated printed book 1638 First [North] American press established by Stephen Daye at Harvard College 1690 First [North] American papermill established in Germantown, Pennsylvania, by William Rittenhouse 1790 Thomas Bewick perfected process of wood engraving 1796-9 Lithography invented by Alois Senefelder 1798 Papermaking machine invented by Nicholas-Louis Robert 1804 Iron press devised by Earl Stanhope 1822 First photographic image made by J.N. Niepce 1837 Invention of Daguerre photographic process 1839 Negative/positive photography invented by Fox Talbot 1852 Photogravure invented by Fox Talbot 1860 Principle of color separation by filters demonstrated by Clerk Maxwell</p>				<p>1881 Halftone process invented by Frederick Ives [of Currier & Ives] 1882 George Meisnebach refines the single lined screen 1890 Ives with Louise and Max Levy introduce the cross-lined screen 1890 Four color separation process invented 1938 Xerography invented by Chester Carlson 1948 Color Scanner invented by Kodak 1969 Laser invented at Hughes Laboratory 1969 ARPAnet, the precursor to the internet, established 1984 Apple Macintosh and Linotronic 300 Laser imagesetter launched 1985 Adobe Postscript used to set type on LaserWriter and Linotronic imagesetter at different resolutions 1985 Aldus PageMaker launched, and term “desktop publishing” coined by Aldus founder Paul Brainerd 1987 Mac II and Quark XPress launched 1991 TrueType format introduce by Apple 1992 Tim Berners-Lee of CERN develops software for the World Wide Web (WWW) 1993 NCSA releases Mosaic, the first WWW browser 1994 Aldus and Adobe merge</p>								

Timeline of Lifetimes of Outstanding Type Designers:

1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000
<p>To be added: Greenwald & Luttrupp. Graphic Design & Production Technology. Prentice Hall. 2001. Chapter 2: The Development of Graphic Communications. pp 28–42.</p> <p>[sets out rhetoric of genius, and of precedence, that is to say ‘standing on the shoulders of giants’]</p> <p>“Within the area of humankind’s ability to communicate, two achievements in this technological landscape stand out as landmark events in human history: the development of the printing press and moveable type by Johann Gutenberg in 1455 and the invention of the transistor in 1948 by Bell Laboratory physicists Walter Brattain, John Bardeen, and William Shockley.”...</p> <p>“The discovery of the transistor clearly marks the beginning of a shift in the direction of human history. While there are many remarkable developments that have accompanied the evolution of the computerization of every facet of human existence, the transistor enabled the development of electronic miniaturization which has forever changed both the nature and the direction of political and social events.”</p> <p>1476 First printing press in England 1640 First book published in America [sic?] 1709 British Parliament passes the Statute of Anne which extended the right of copyright protection to all citizens. This statute established for the first time, that intellec-</p>				<p>tual property is, in effect, the property of its creator. [this makes it sound like England it the first nation to create this protection. Is this true?]</p> <p>1734 Caslon typefaces 1757 Roman typefaces [sic?] 1796 [Alois] Senefelder Develops lithography 1826 Camera Obscura 1886 Halftone screen 1888 Kodak Camera 1926 First Television picture transmission 1930 First Color film 1962 Telestar Satellite 1963 Geosynchronous Satellites 1971 Microprocessor 1975 Compact Disc 1990 CD [sic? CCD?] and scanner technology</p> <p>[this is an excerpt of page 29]</p>								

Timeline of Lifetimes of Outstanding Type Designers:

1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000			
<p>To be added: from various sources used in my computer lecture</p> <p>Development of the Computer</p> <p>1775 James Watt perfects the steam engine</p> <p>1834 Mathematician Charles Babbage invents the principle of the “analytical engine” (modern computer) based on the mechanical Jacquard loom that was controlled by holes punched into cards · a mechanical device able to combine arithmetic processes with decisions based on its own computation · consisted of a memory unit and the arithmetic desk-calculator section. Babbage insisted that both input and output be printed out to avoid error · two major but deceptively simple innovations: 1.-conditional transfer of control, which permitted machine to compare quantities and, depending upon the results, branch or jump to another instruction or instruction sequence. 2.- permitted the results of a calculation to change other numbers and instructions previously set into the machine and thus, in effect, made it possible for the computer to modify its own program · Mechanical adders existed previous to it, reliable multipliers predated the computer by only twelve years (but they proved the advantages of the binary over the decimal system for mechanical computers, which would carry over into electronic devices).</p> <p>1834 Cyrus McCormick patents the reaping machine</p> <p>1835 Samuel Colt takes out Eng. patent for his single barreled pistol and rifle</p> <p>1838 The Daguerre-Niepce method of photography presented by the physicist Francois Arago to the Académie des Sciences and the Académie des Beaux Arts, Paris (WH Fox Talbot claims to simultaneous development of photo processes)</p> <p>1901 The age of “practical” electricity is ushered in</p> <p>1942 (during WWII) The first “Electronic Brain” or automatic computer is developed in the U.S. · ENIAC was built, the first entirely electronic digital calculating computer. it filled a house, it used vacuum tubes. It could do in two hours what it would take one hundred engineers one year to do. · It was immediately</p>				<p>put to use in solving nuclear physics calculations.</p> <p>In 1951 Univac 1 was built for the US Bureau of the Census. It was the first computer to handle both numeric and alphabetical information with ease.</p> <p>1946 The first nuclear bomb was dropped on Hiroshima, Japan</p> <p>1947 Scientists at Bell Laboratories invent the transistor</p> <p>_____ discovery of semiconductor</p> <p>1974 IBM introduces “Personal” Computer</p> <p>1984 MacIntosh is introduced</p> <p>1986 PostScript Page Description Language is published, along with first PostScript enabled software (PageMaker, Fonts), and Hardware (Macintosh, Laser printer)</p>											