INDUSTRIAL REVOLUTION BIRTH OF GD

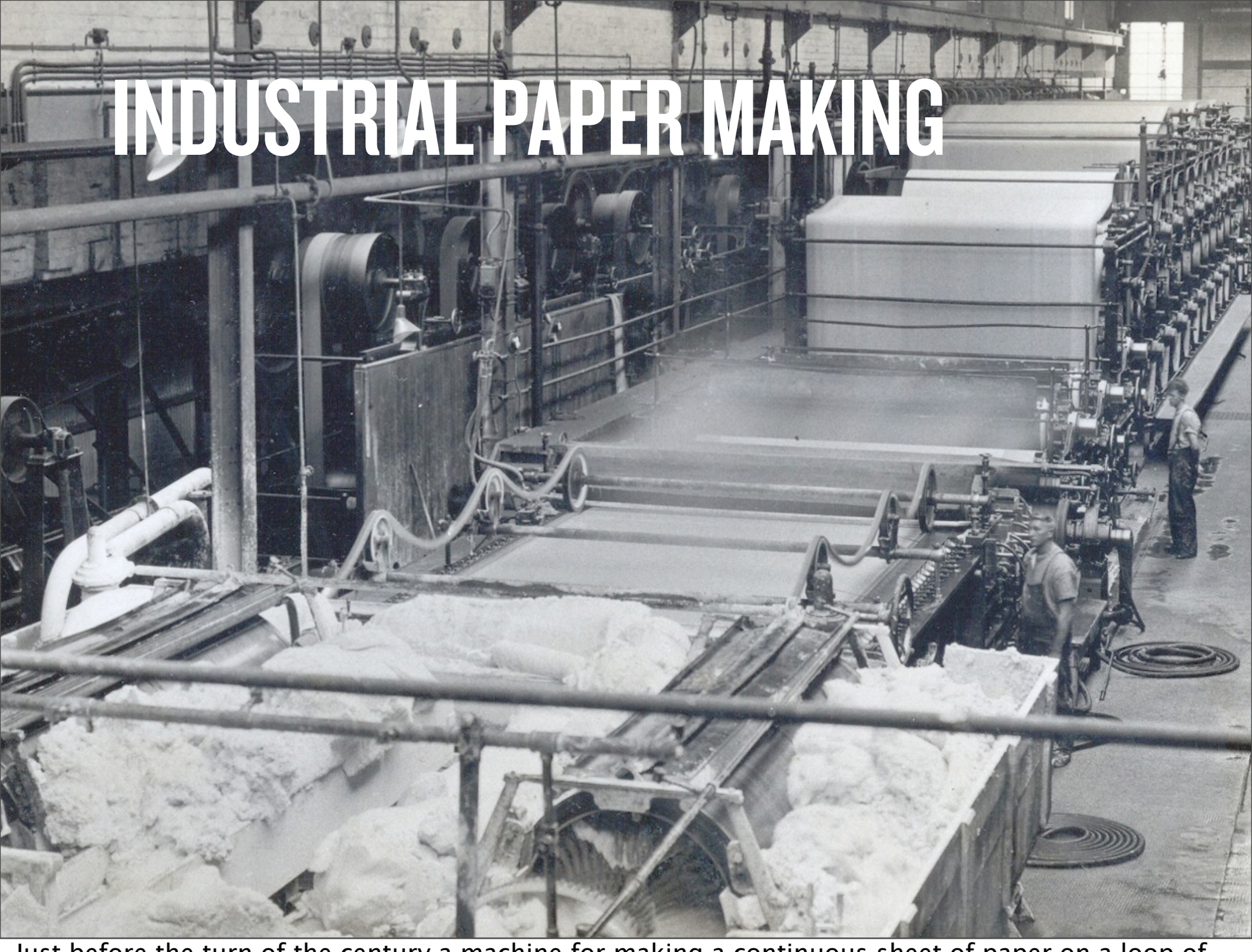
INDUSTRIAL REVOLUTION

The Industrial Revolution was a period from roughly 1750 to 1850 where changes in agriculture, manufacturing, mining, transportation, and technology had a profound effect on the social, economic and cultural conditions of the times. There was a large migration from rural to urban settings and a large growth in population overall.

INDUSTRIAL REVOLUTION

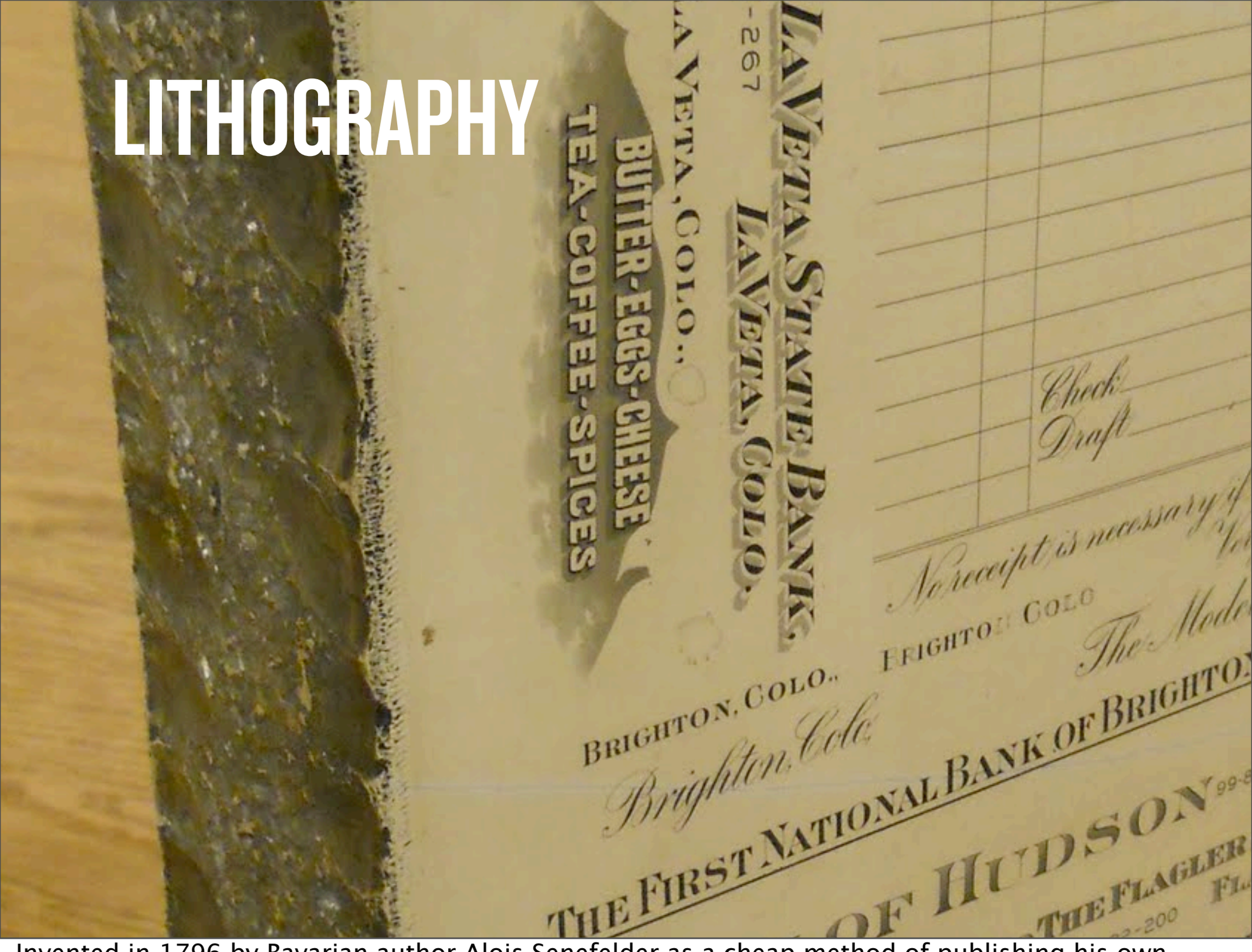
There was a large migration from rural to urban settings and a large growth in population overall. There was also a relative rise in the standard of living.

INDUSTRIAL PAPER MAKING



Just before the turn of the century a machine for making a continuous sheet of paper on a loop of wire fabric was patented in 1798–1799 by Nicholas Louis Robert who worked for Saint-Léger Didot family in France. The paper machine is known as a Fourdrinier after the financiers, brothers Sealy and Henry Fourdrinier, who were stationers in London. Although greatly improved and with many variations, the Fourdriner machine is the predominant means of paper production today.

LITHOGRAPHY



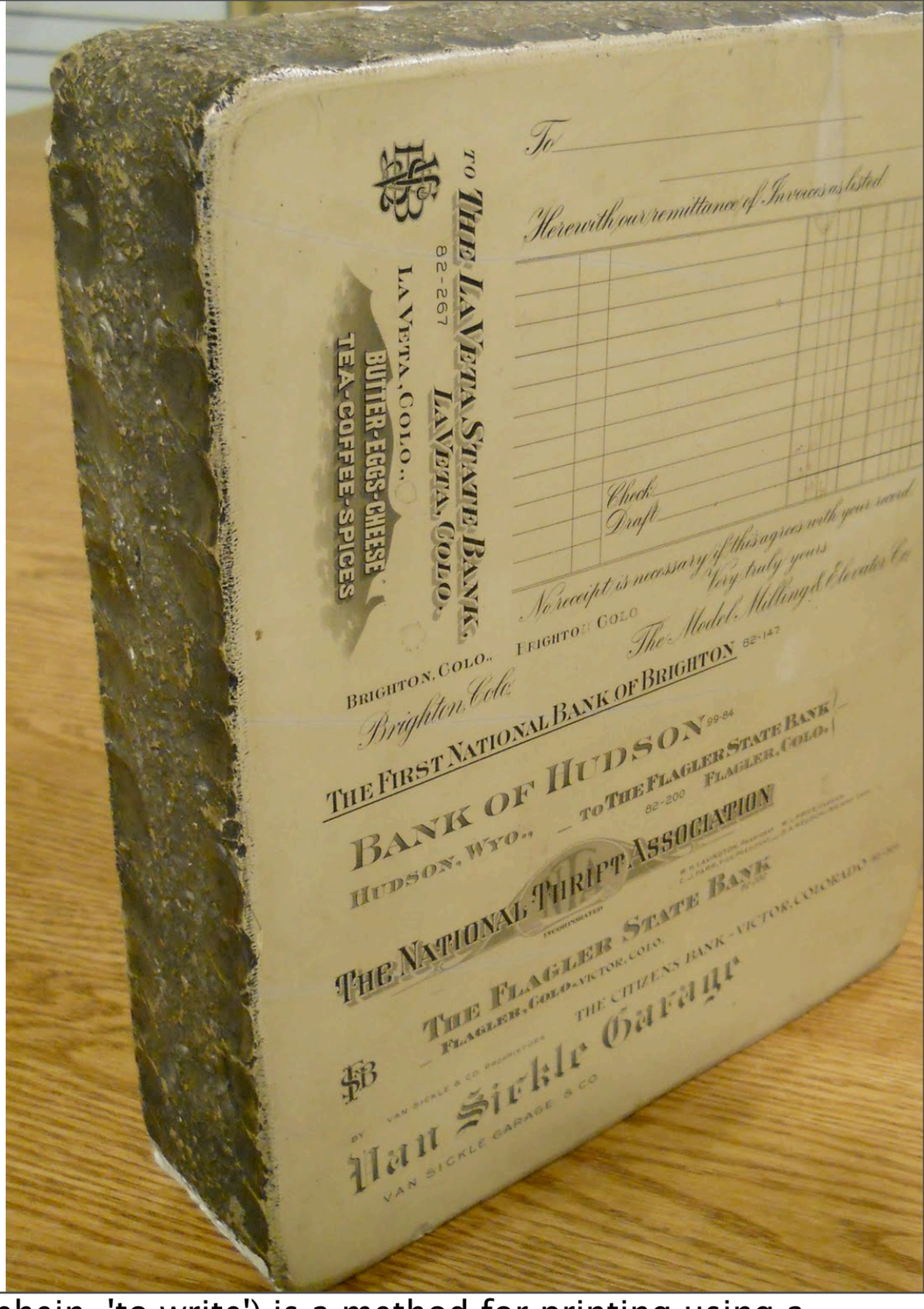
Invented in 1796 by Bavarian author Alois Senefelder as a cheap method of publishing his own theatrical works, lithography can be used to print text or artwork onto paper or other suitable material. He was trying to make a relief printing plate by etching away stone around a grease pencil drawing. In reality in lithographic printing the image is neither raised as in relief printing or incised as in intaglio printing.

LITHOGRAPHY

LITHOGRAPHY IS A METHOD OF PRINTING THAT USES A STONE OR METAL PLATE.

THE WORD IS DERIVED FROM THE GREEK LITHOS (STONE) AND GRAPHEIN (TO WRITE).

THE IMAGE IS DRAWN OR TRANSFERRED DIRECTLY ONTO THE STONE USING A OIL BASED MEDIUM. THE PROCESS IS BASED ON THE PRINCIPLE THAT WATER AND OIL DO NOT MIX.



Lithography (from Greek lithos, 'stone' + graphein, 'to write') is a method for printing using a stone (lithographic limestone) or a metal plate with a completely smooth surface. This method would allow an artist to draw or transfer a drawing directly to a stone.

An image is drawn on a flat stone with an oil based crayon or pencil. Water is spread over the stone to moisten all areas except the oil-based image. An oil-based ink is rolled over the stone adhering to the image but not to the wet areas of the stone. A sheet of paper is placed over the image and a printing press is used to transfer the image to the paper.

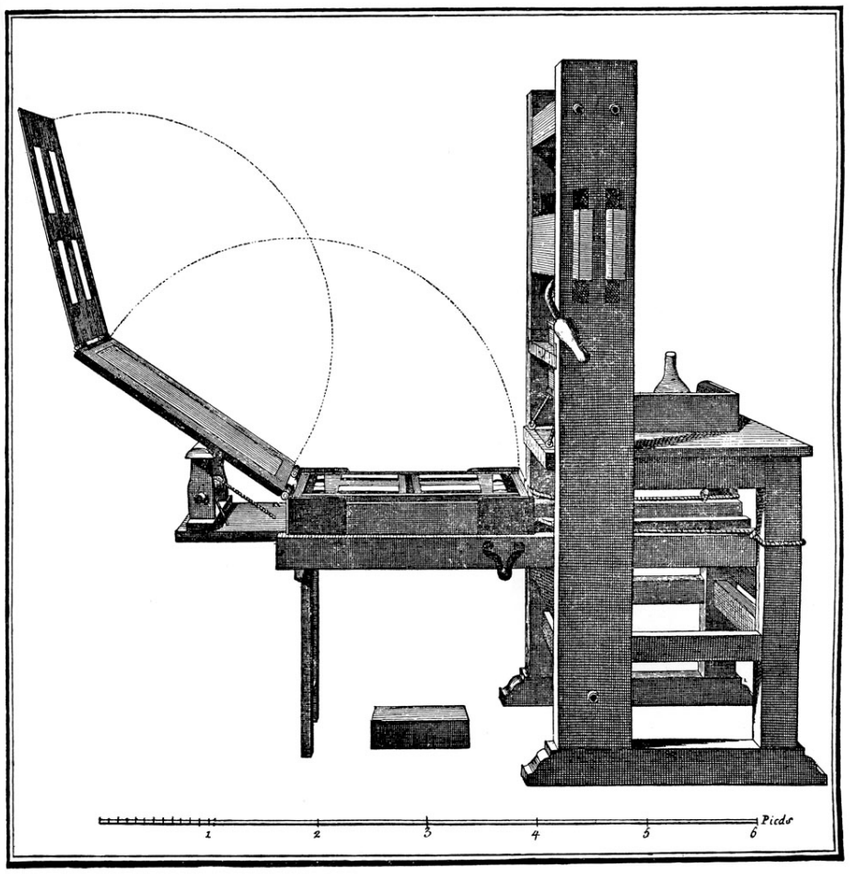
The image is printed directly from the stone plate (the orientation of the image is reversed)

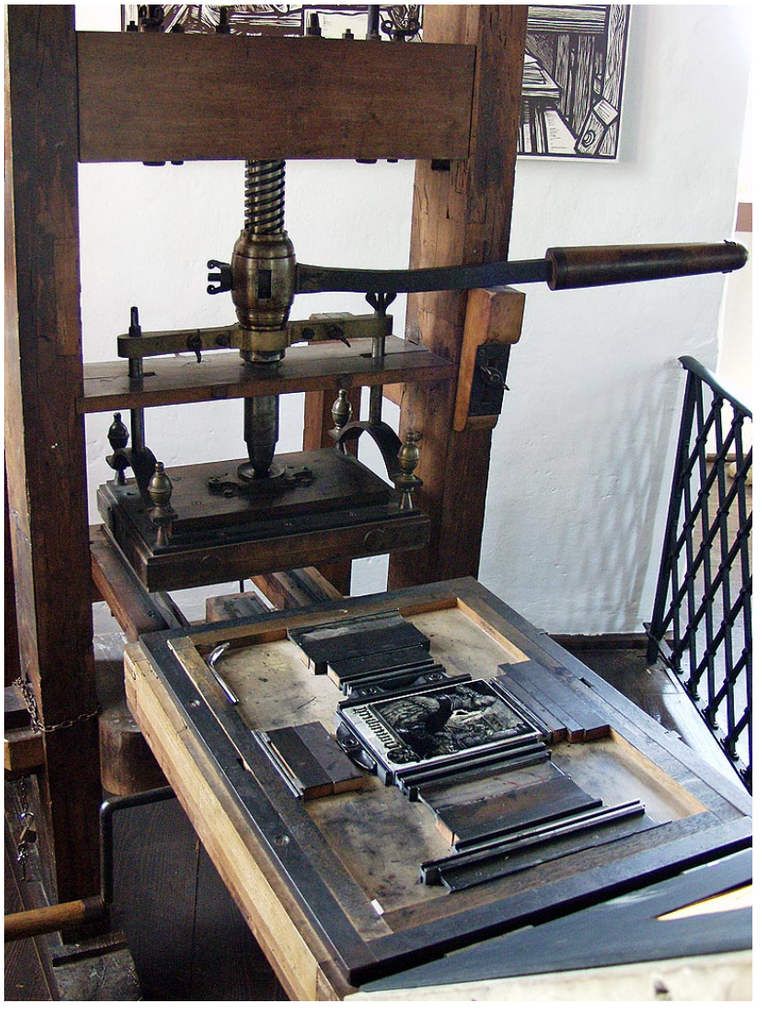
1800-1810

So many things happen in such a relatively short time between 1800-1900 I have framed the discussion in smaller periods. Some context for what is going on in the world on one hand we have Napoleon being crowned Emperor in France while Beethoven completes his Fifth Symphony.

PRINTING PRESS INNOVATION

GUTENBERG PRESS EXPERIENCED LITTLE CHANGE UP TO 1800

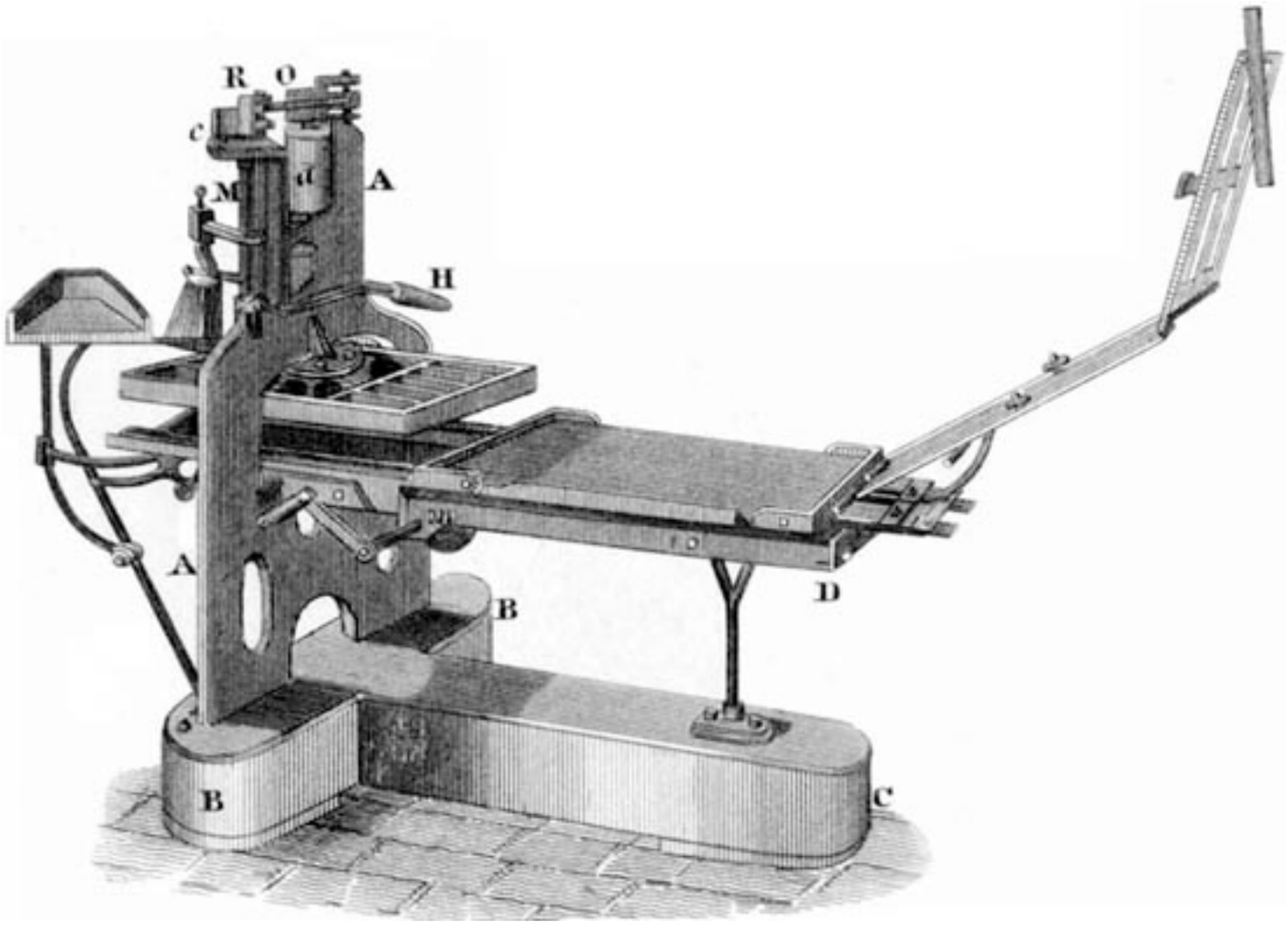




The modified wine press Gutenberg while having been refined a great deal over the centuries experience very dramatic change.

PRINTING PRESS INNOVATION

STANHOPE CAST IRON PRESS



In 1800 Lord Charles Stanhope created the first cast iron press.

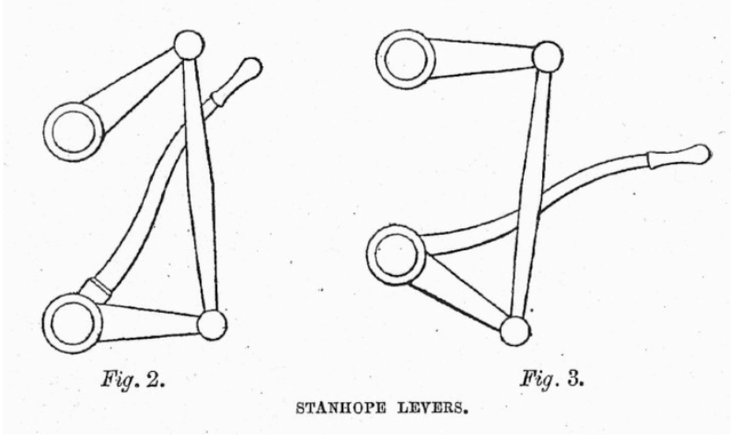
PRINTING PRESS INNOVATION

STANHOPE CAST IRON PRESS

A MORE DURABLE MATERIAL

REQUIRED 1/10 OF THE FORCE OF A WOODEN PRESS

DOUBLED THE PRINTABLE AREA



250 sheets per hour.

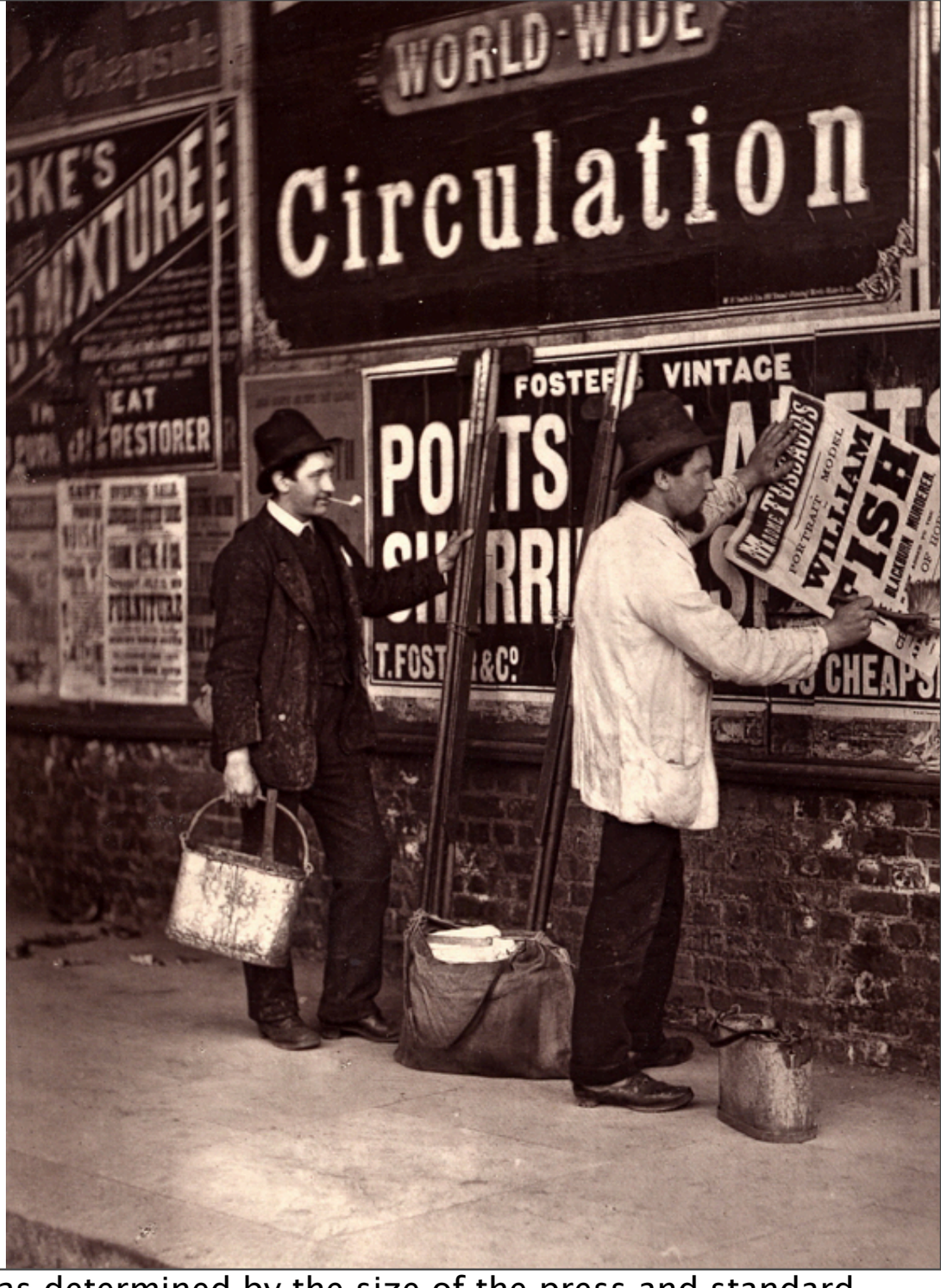
THE POSTER & DISPLAY TYPE

GREATER SIZE WAS NEEDED TO FUNCTION WITHIN A NEW SIZE AND CONTEXT

GREATER COMPLEXITY AND EXTREME CONTRAST IN TYPE FORMS WERE USED TO ATTRACT ATTENTION

LETTERPRESS PRINTERS WERE ALREADY FACING COMPETITION FROM LITHOGRAPHY AND TURNED TO TYPEFOUNDERS TO PROVIDE AN EXPANDED PALETTE TO WORK WITH

THE COMPOSITION WAS A CHAOTIC MIXTURE OF TYPE SIZE AND STYLE DRIVEN BY EXPEDIENCY OPPOSED TO AESTHETICS



The size of most printing up to this point was determined by the size of the press and standard sizes of the book. The larger printing area afforded by innovations in printing allowed for and expansion that matched a new need. The Industrial Revolution drove a huge migration of people from rural to urban locals in search of work in manufacturing. This growth in the of cities also created a new context for visual communication to exist. The Poster rose to be the dominant form of cheap advertising in the city. It was so pervasive that some neighborhoods designated areas for posting handbills and posters called hoardings.

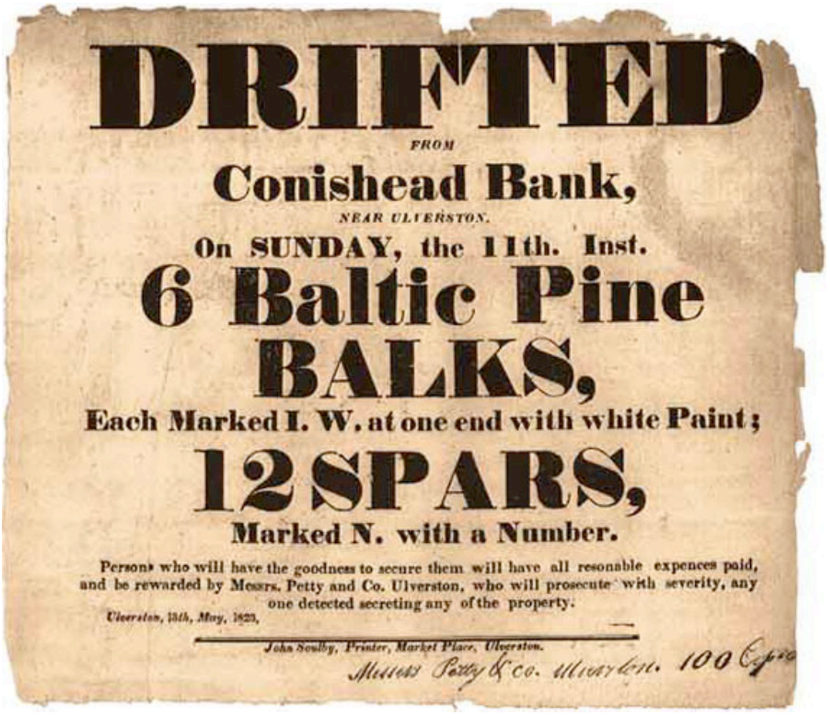
FAT FACE

FIRST DEVELOPED BY ROBERT THORNE IN 1803

A ROMAN FACE WHERE THE CONTRAST AND WEIGHT HAVE BEEN INCREASED BY EXPANDING THE THICKNESS OF THE HEAVY STROKES.

MINT
main.

Quousque tandem abutere,
Catilina, patientia nostra?
quamdiu nos etiam furor is
te tuus eludet? quem after
CONSTANTINOPLE
£1234567890



1810-1820

SLAB SERIF TYPE

EARLIEST METAL SLAB SERIF TYPE CREDITED TO VINCENT FIGGINS IN 1815

EVEN STROKE WEIGHT

VERTICAL STRESS

UNBRACKETED SERIF

Archer

Serifa

Rockwell

Also referred to as egyptian or antique. Egypt was such a strong point of fascination due to Napoleons campaigns there that even though it had no basis in Egyptian art it was still given that classification.

SAN SERIF TYPE

FIRST SAN SERIF TYPE IS CREDITED TO WILLIAM CASLON IV IN 1816

EVEN STROKE WEIGHT

VERTICAL STRESS

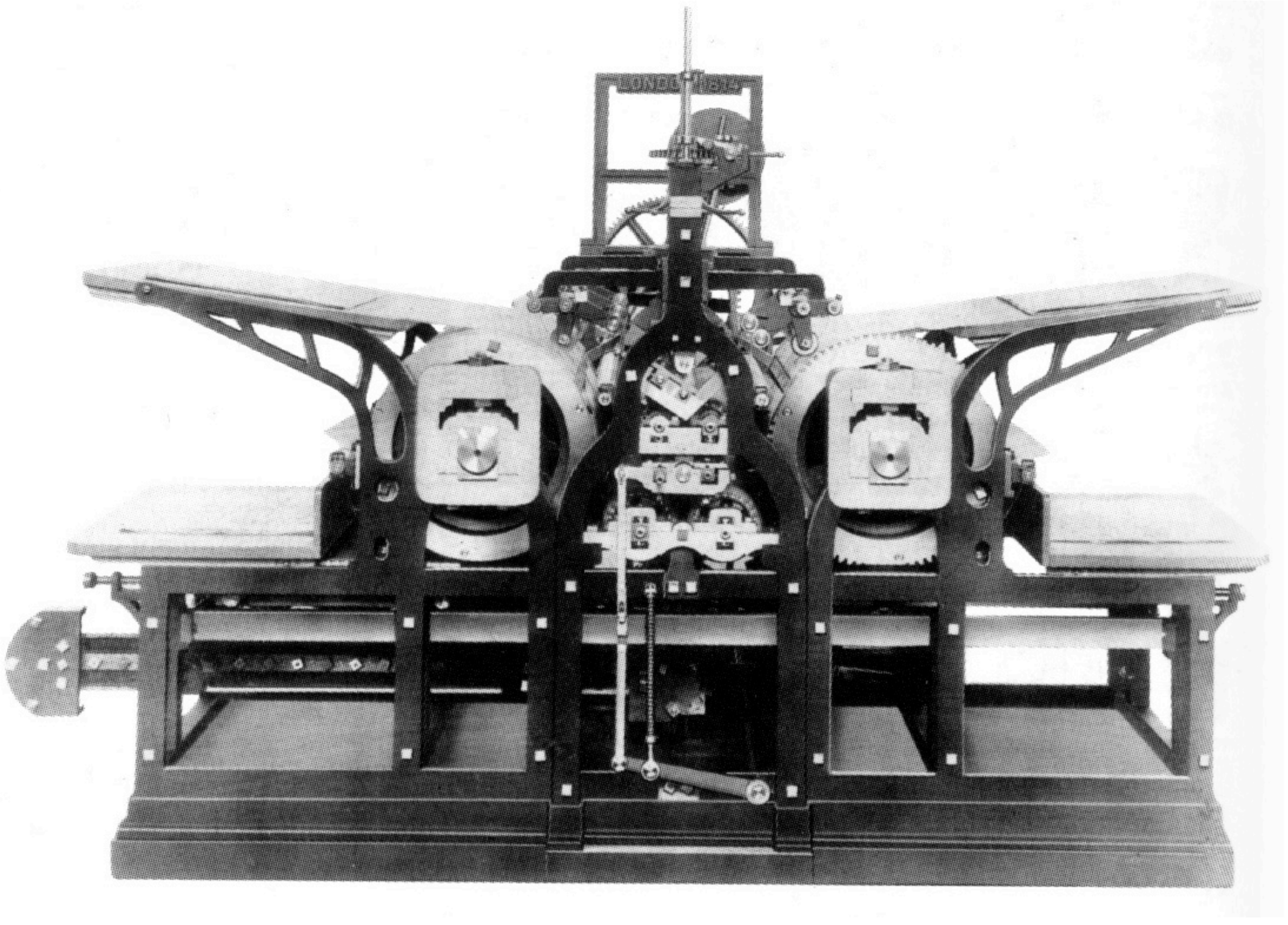
CASLON JUNR

LETTERFOUND

In the back of an 1816 type specimen book issued by William Caslon IV mixed with a collection of display type is one line of medium weight san serif capitals. It was most likely a slab serif face with the serifs removed.
Caslon's san serif is too small to work well on posters and to big to be effective in a book text format. Vincent Figgins San Serif specimens first showed the greatest range of sizes. He is credited with making san serif a workable type.

PRINTING PRESS INNOVATION

KOEING STEAM POWERED TWO CYLINDER PRESS



Created by Frederich Koeing between 1804-10. Printed 400 sheets per hour. Koeing was commissioned by John Walter II of The Times of London to develop a two cylinder press, which is pictured here. It was capable of printing 1,100 impressions an hour. The Times was using the press by 1814.

Other innovations attached to this press was a new method for applying ink to type via rollers instead of by hand with a ink-ball.

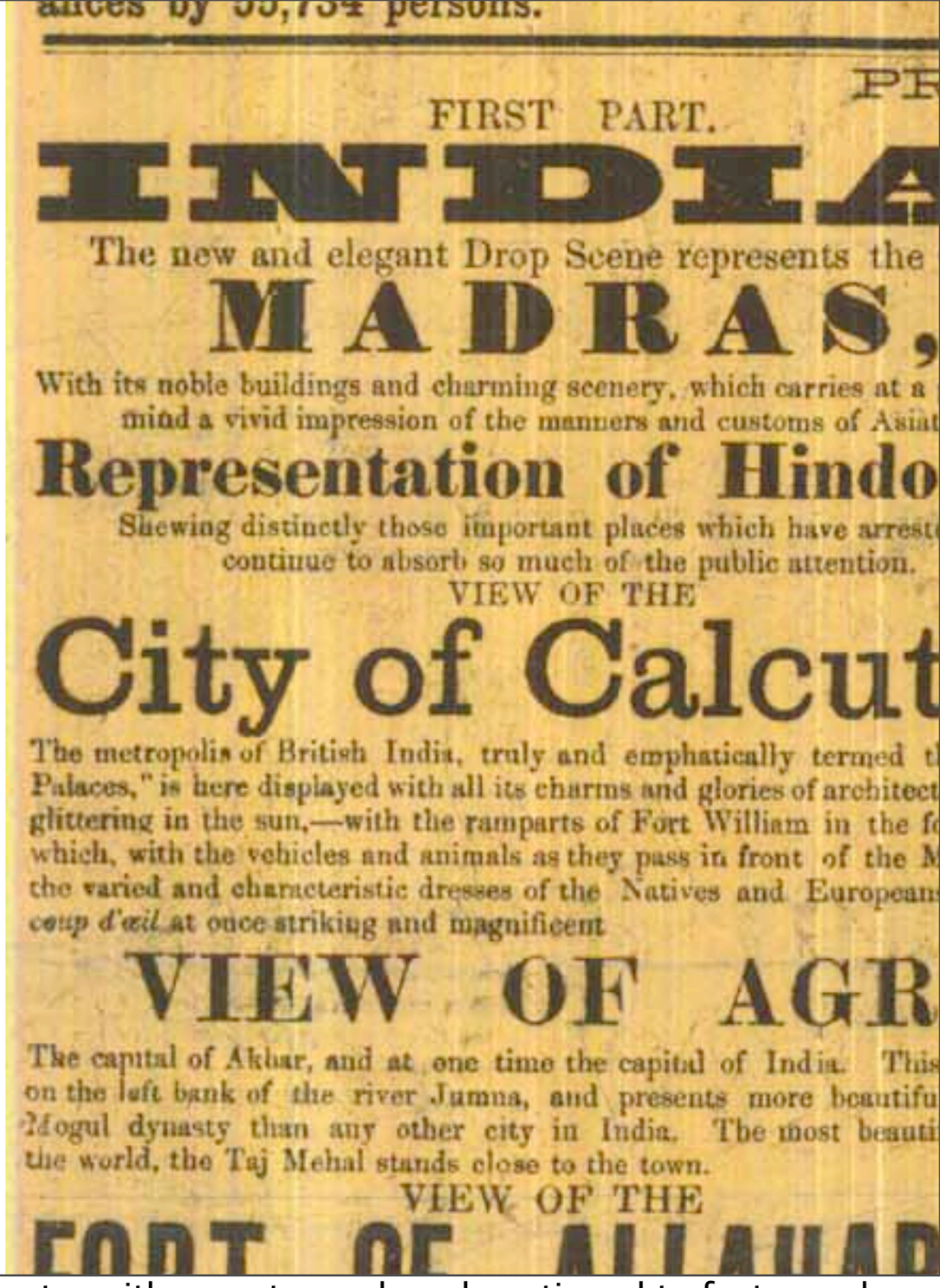
1820-1840

The Victorian era of British history was the period of Queen Victoria's reign from 20 June 1837 until her death on 22 January 1901. It was a long period of peace, prosperity, refined sensibilities and national self-confidence for Britain.

WOOD TYPE

In 1827 American Darius Wells invented a lateral router that enables the economical mass production of wood type.

http://www.youtube.com/watch?v=Tk4QmaU4JIg&feature=related

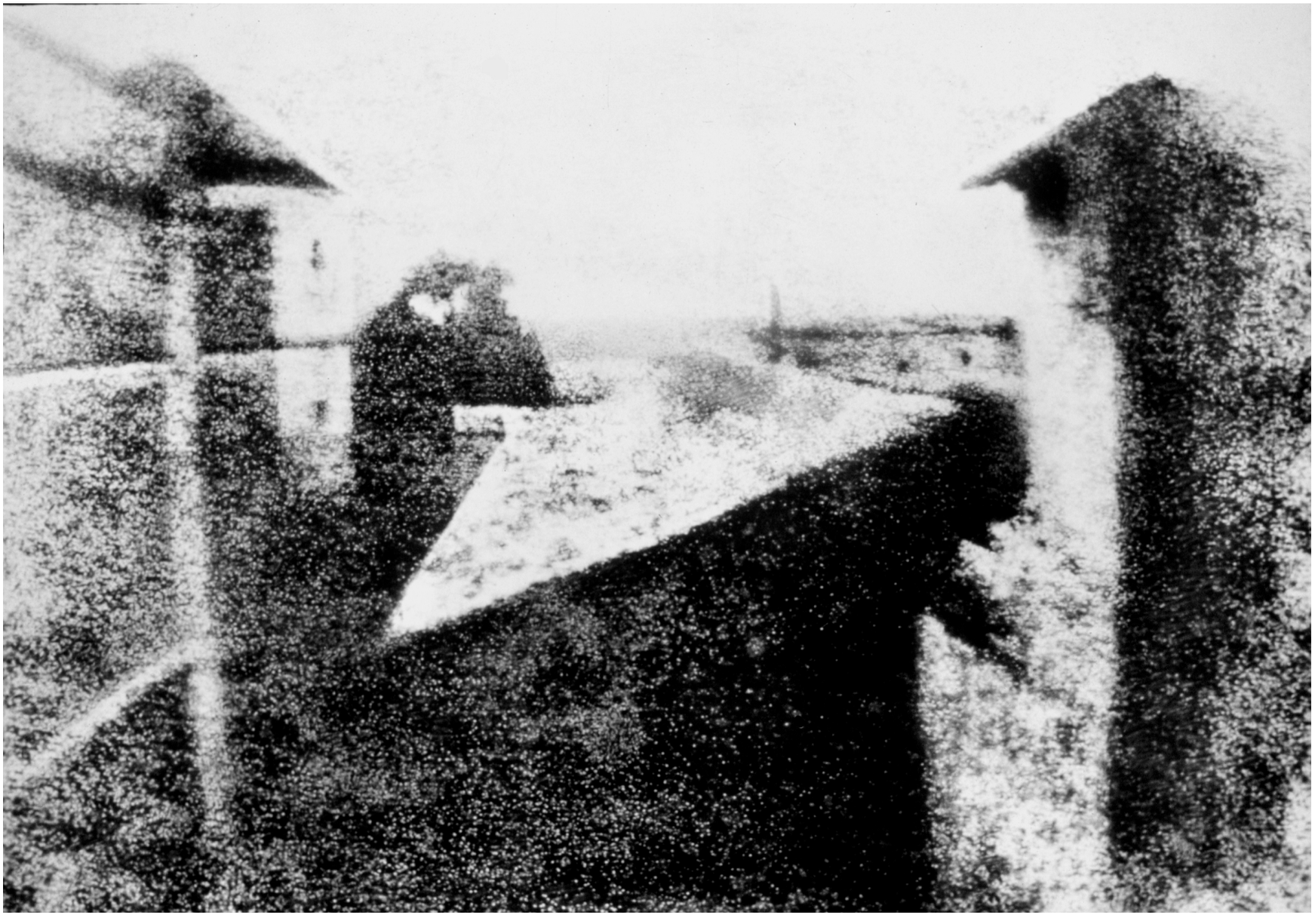


In 1834 William Leavenworth combined the router with a pantograph and continued to foster and explosion of wood type that fed into hunger for mass communication and advertising.
There was a tremendous about of new type generated during the 1800's. This proliferation of type did not guarantee quality. A great number of typefaces were created by inexperienced amateurs employed by print shops. We see this happen again in the late 1980's and early 1990's with the advent of digital technologies.

PHOTOGRAPHY

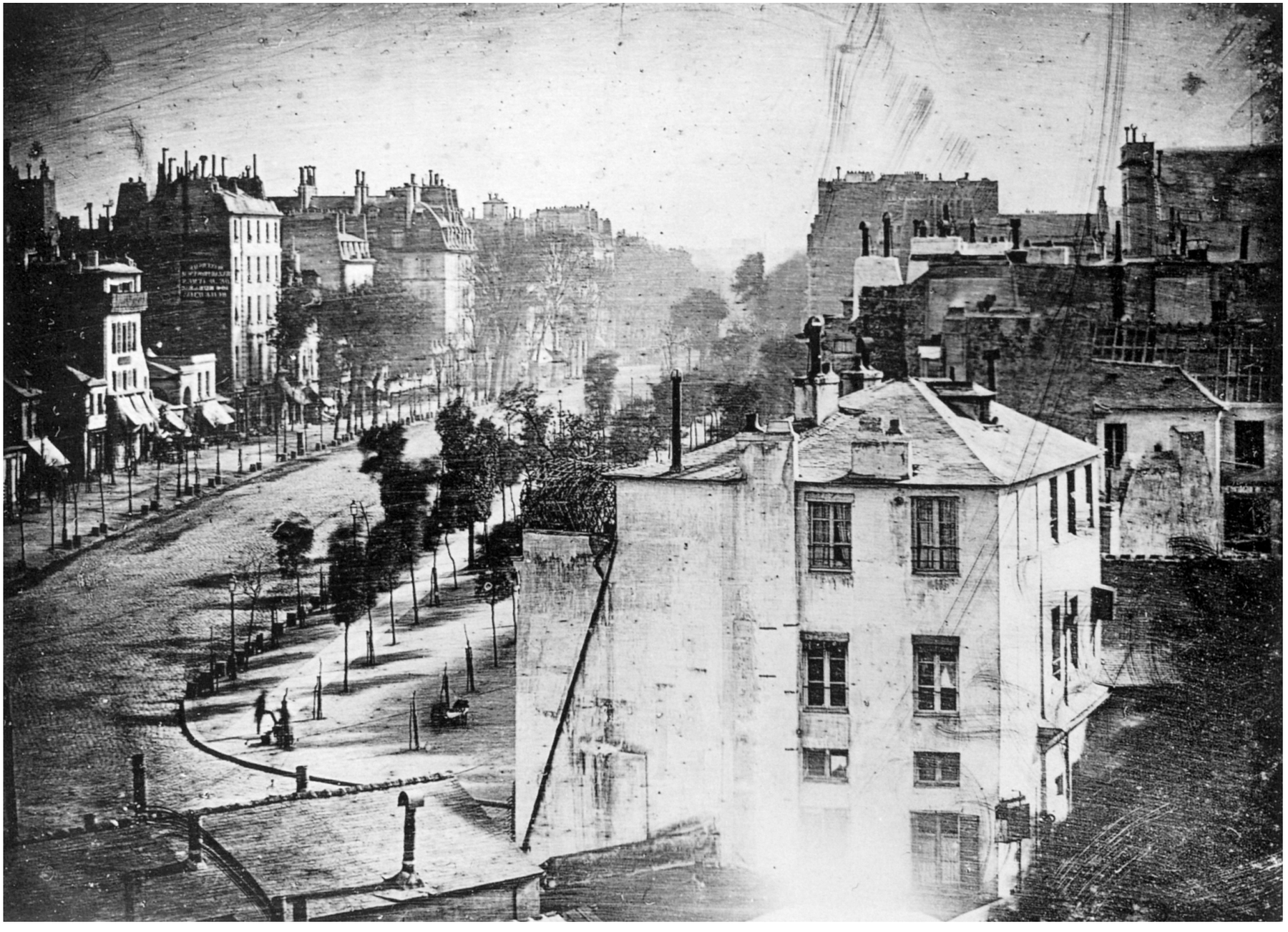
JOSEPH NIEPCE WAS ATTEMPTING TO FIND AN AUTOMATIC WAY TO TRANSFER DRAWINGS TO A PRINTING PLATE. HE WAS THE FIRST TO PRODUCE A PHOTOGRAPHIC IMAGE.

One of the two earliest known pieces of evidence for seminal photographic activity, made by Nicéphore Niépce in 1825 by the heliograph process. This illustration is of an etching printed from a metal plate that was etched following alteration of the ground by sunlight; the image is of a 17th-century Flemish engraving showing a man leading a horse.



Nicéphore Niépce's earliest surviving photograph of a scene from nature taken with a camera obscura. The exposures would last all day.

Starting in 1829 he began collaborating on improved photographic processes with Louis Daguerre, and together they developed the physautotype, a process that used lavender oil. The partnership lasted until Niépce's death in 1833.



Daguerre continued and in 1839 perfected his process and presented it to the French Academy of Sciences. A Daguerreotype had limitations. For each plate was a one of a kind image of predetermined size. The process required a great deal of craft in preparation.

"Boulevard du Temple", taken by Daguerre in 1838 in Paris, includes the earliest known photograph of a person. The image shows a street, but because of the over ten minute exposure time the moving traffic does not appear.

At the lower left, however, a man apparently having his boots polished, and the bootblack polishing them, were motionless enough for their images to be captured.

PHOTOGRAPHY

WILLIAM HENRY FOX TALBOT OF ENGLAND DEVELOPED THE CALOTYPE PROCESS.

THIS WAS THE PRECURSOR TO MOST PHOTOGRAPHIC PROCESSES OF THE 19TH AND 20TH CENTURIES

William Henry Fox Talbot was a British inventor and a pioneer of photography. He was the inventor of calotype process, the precursor to most photographic processes of the 19th and 20th centuries. Pursuit of light sensitive paper. One of Talbot's original contributions included the concept of a negative from which many positive prints can be made. The daguerreotype, although stunningly beautiful, was rarely used by photographers after 1860, and had died as a commercial process by 1865.

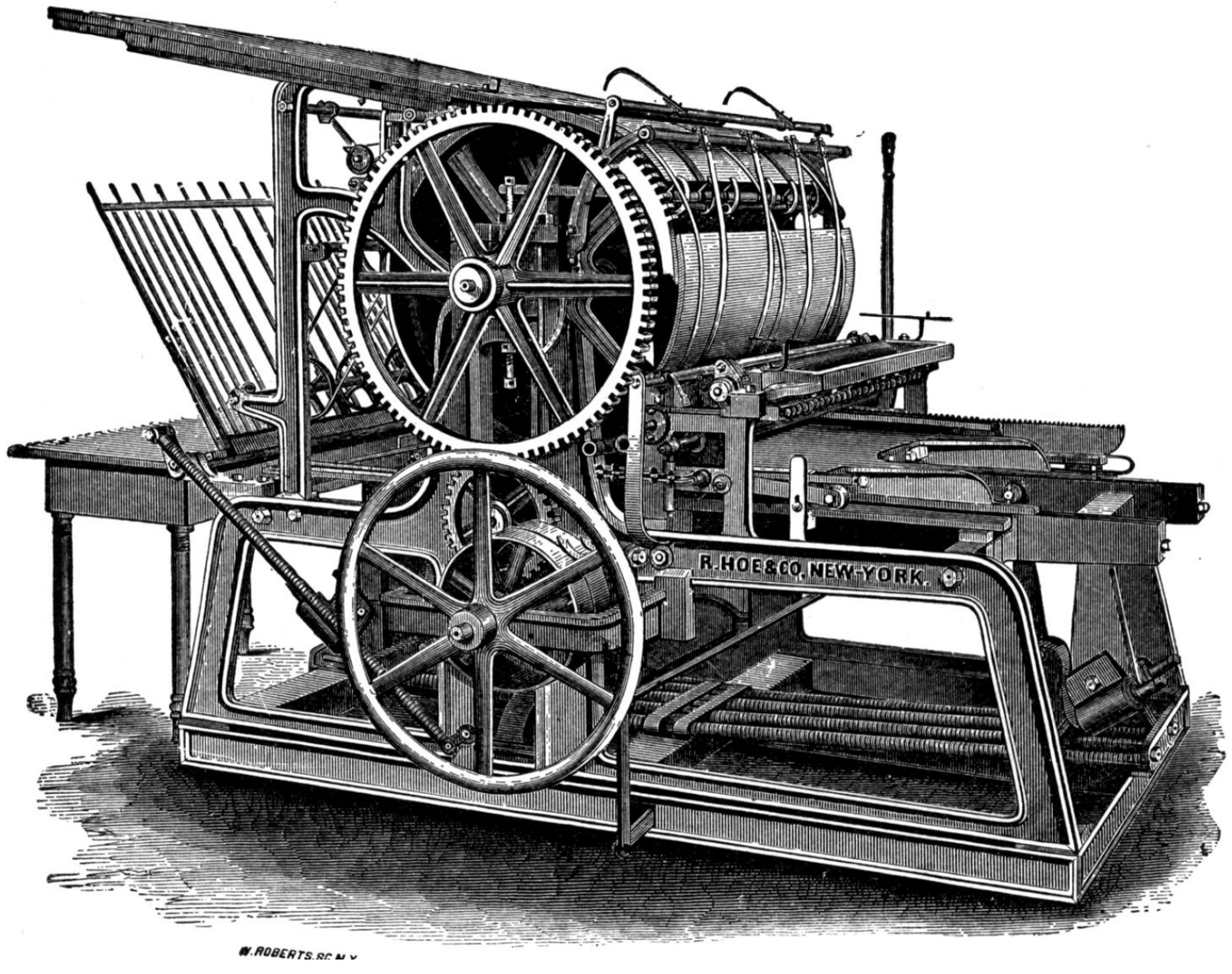
Latticed window in Lacock Abbey in 1835 by Talbot is a print from the oldest photographic negative in existence.

1840-1860

During this period we have Morse inventing the Telegraph in 1844 and Marks and Engels Communist Manifesto is published in 1848.
Melville finishes Moby Dick in 1851 and in 1859 Darwin publishes the Origin of Species establishing evolution as a theory.

PRINTING PRESS INNOVATION

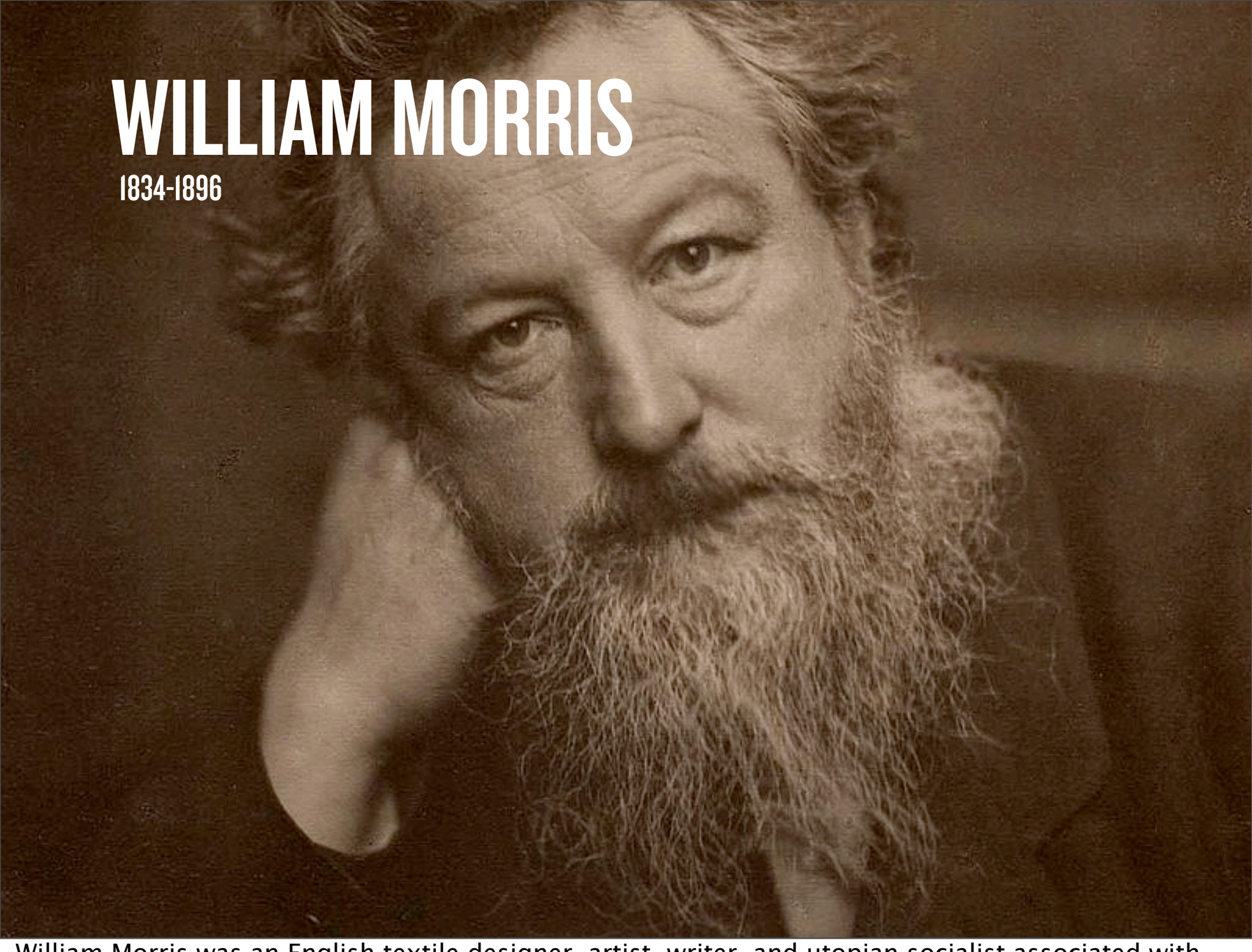
ROTARY LITHOGRAPHIC PRESS



In 1843, American born Richard Hoe perfected the lithographic rotary printing press, nicknamed the "lightning press" that placed the type on a revolving cylinder, a design 6 times faster than a flatbed printing press. This innovation was an important boost in lithography's competition with letterpress.

1860-1870

During this decade the U.S. Civil War begins and Lincoln is assassinated.



William Morris was an English textile designer, artist, writer, and utopian socialist associated with the Pre-Raphaelite Brotherhood and the English Arts and Crafts Movement.

In 1861 he founded a design firm in partnership with the artist Edward Burne-Jones, and the poet and artist Dante Gabriel Rossetti which profoundly influenced the decoration of churches and houses into the early 20th century.

In 1861, the decorative arts firm of Morris, Marshall, Faulkner & Co.

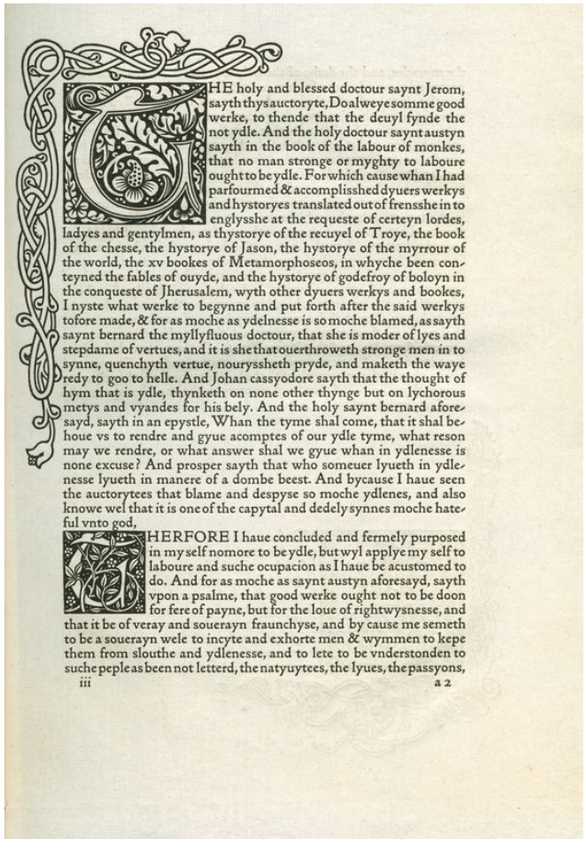
ARTS & CRAFTS

1860-1910

It developed first and most fully in the British Isles, but spread to Europe and North America. It was largely a reaction against the lack of craft and consideration in the quickly growing industrial mass produced economy. It stood for traditional craftsmanship using simple forms and often applied medieval, romantic or folk styles of decoration. A large influence on the movement and William Morris came from John Ruskin. His asserted that the utilitarian decorative arts had a greater transformative power on day to day living than fine art. He also held Architecture as the highest form of art due to its all encompassing nature.

They idealized the place of the workshop in medieval times and unrealistically tied their efforts to champion the individual or small group craftsmanship to the distribution of quality art and products for all. The cost of a majority of the work they produced though was well out of the reach of those people they claimed they wanted to help by transforming their mundane visual existence.

In 1891 Morris expanded his business to include book and type design. Taking inspiration from a lecture by Emery Walker on book design and printing during an early event by the Arts and Crafts Exhibition Society. Advocating unity in design Walker told his audience “The ornament, whatever it is, picture or pattern-work, should form part of the page, should be part of the whole scheme of the book.” Walker considered book design similar to architecture. Where every aspect – paper, ink, type, spacing, margins, illustration and ornament should result in design unity.



THE holy and blessed doctour saynt Jerom, sayth thys auctoryte, Do alweye somme good werke, to thende that the deuyl fynde the not ydle. And the holy doctour saynt austyn sayth in the book of the labour of monkes, that no man stronge or myghty to laboure ought to be ydle. For which cause whan I had parfourmed & accomplisshed dyuers werkys and hystoryes translated out of frensshe in to englysshe at the requeste of certeyn lordes, ladyes and gentylmen, as thystorye of the recuyel of Troye, the book of the chesse, the hystorye of Jason, the hystorye of the myrrour of the world, the xv bookes of Metamorphoseos, in whyche been conteyned the fables of ouyde, and the hystorye of godefroy of boloyn in the conqueste of Jherusalem, wyth other dyuers werkys and bookes, I nyste what werke to begynne and put forth after the said werkys tofore made, & for as moche as ydelnesse is so moche blamed, as sayth saynt bernard the myllyfluous doctour, that she is moder of lyes and stepdame of vertues, and it is she that ouerthroweth stronge men in to synne, quenchyth vertue, nourysseth pryde, and maketh the waye redy to goo to helle. And Johan cassyodore sayth that the thought of hym that is ydle, thynketh on none other thynge but on lychorous metys and vyandes for his bely. And the holy saynt bernard aforesayd, sayth in an epystle, Whan the tyme shal come, that it shal behoue vs to rendre and gyue acomptes of our ydle tyme, what reson may we rendre, or what answer shal we gyue whan in ydlenesse is none excuse? And prosper sayth that who someuer lyueth in ydlenesse lyueth in manere of a dombe beest. And bycause I haue seen the auctorytees that blame and despyse so moche ydlenes, and also knowe wel that it is one of the capytal and dedely synnes moche hateful vnto god,

THERFORE I haue concluded and fermely purposed in my self nomore to be ydle, but wyl applye my self to laboure and suche ocupacion as I haue be acustomed to do. And for as moche as saynt austyn aforesayd, sayth vpon a psalme, that good werke ought not to be doon for fere of payne, but for the loue of rightwysnesse, and that it be of veray and souerayn fraunchyse, and by cause me semeth to be a souerayn wele to incyte and exhorte men & wymmen to kepe them from slouthe and ydlenesse, and to lete to be vnderstonden to suche peple as been not letterd, the natyuytees, the lyues, the passyons,

iii a 2

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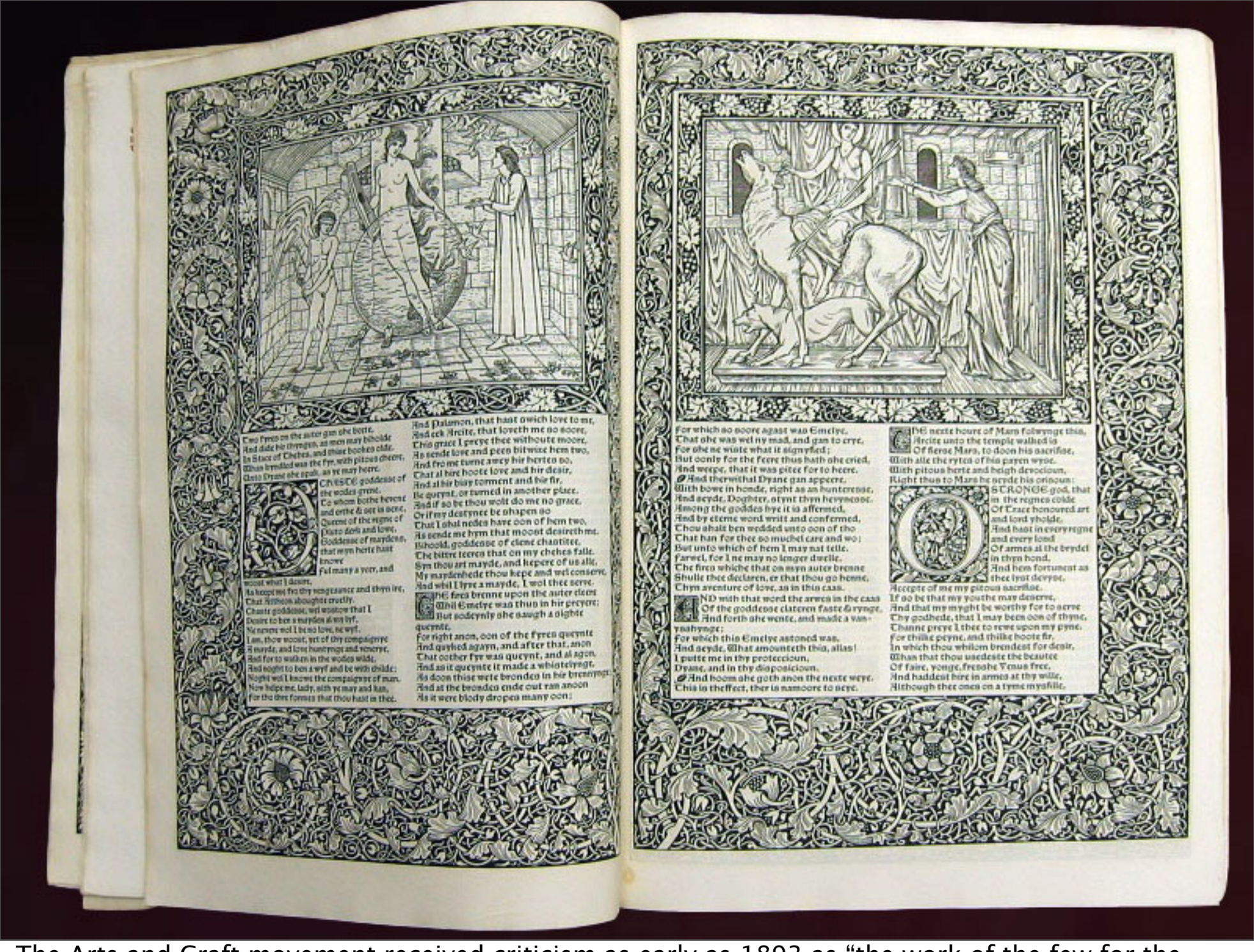
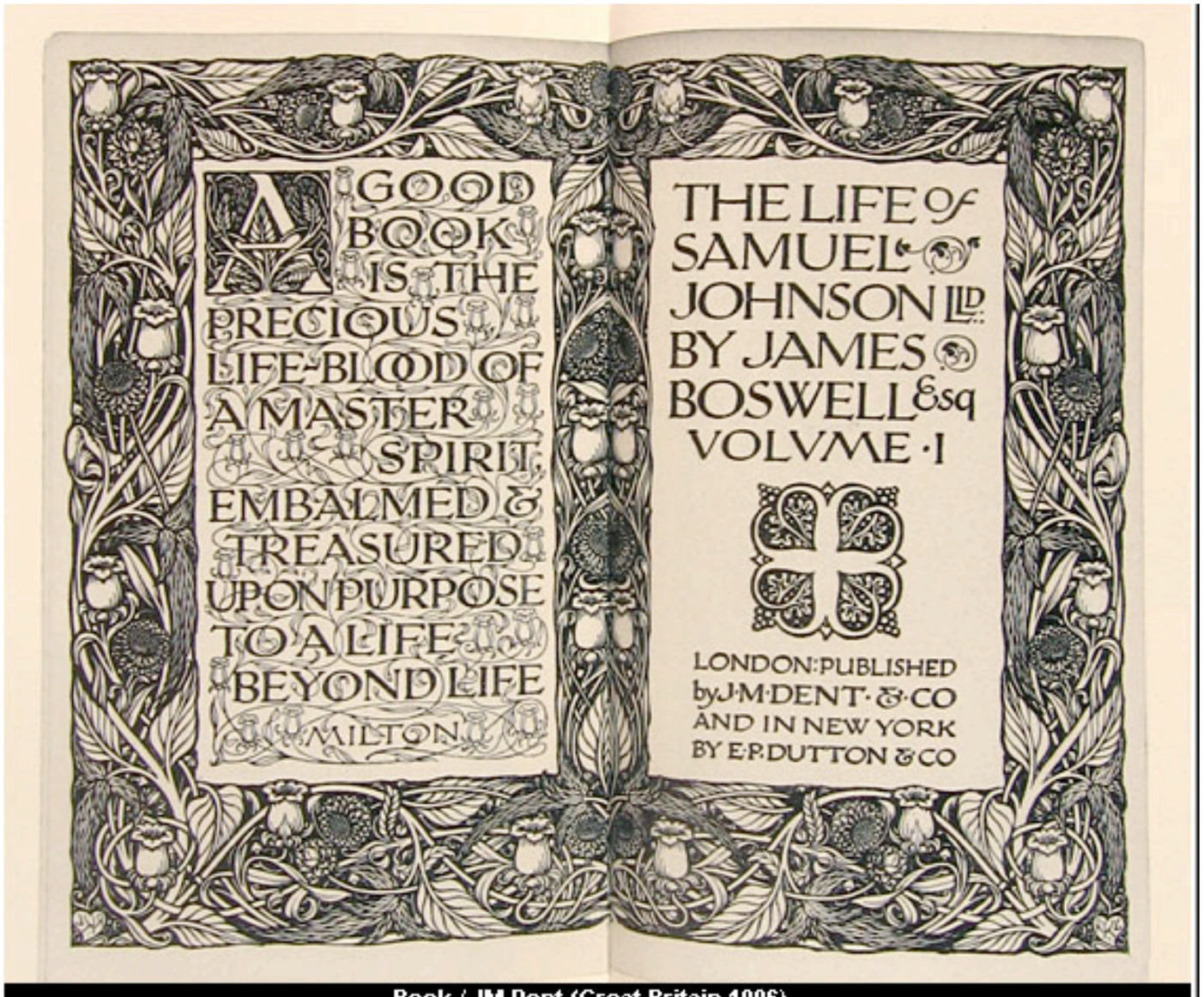
iii a 2

Morris designed his first typeface Golden in 1888. It was based on Nicolas Jensen's venetian roman face from the 1400's. From 1891 to the time it was disbanded in 1898 two years after Morris' death, over 18,000 volumes of 53 different titles were produced.



The Arts and Craft movement received criticism as early as 1893 as “the work of the few for the few”. It failed to address the problems associated with mass production. And while some designers went on to reject Morris’ use of historical styles as inappropriate for a new urban society, his work went on to inspire a great revival in fine book making.



Book / JM Dent (Great Britain 1906)

His type design based on exceptional earlier models, his application of design unity, his focus on the smallest detail relating to the entirety of the book inspired a whole new generation of book designers in both the private craftsman based presses as well as commercial printing.