The Printed Page

Three kinds of printed document, set from one HTML file by the ReflowPDF engine

ReflowPDF is a layout engine that turns HTML and CSS into PDF, and an editor built on it: change a paragraph, and the pages are laid out again. Every page that follows was set by the engine.

A book	4	footnotes at the foot of the page, running heads, left and right pages
A reference page	8	a landscape page in a portrait document, laid out on a CSS grid
A table across pages	9	118 rows; the header and footer repeat on every page

This page is a twelve-column CSS grid; the tinted bands are its tracks. Title in Source Serif 4 at 104 pt, its optical size chosen by the engine from the type size.

Set by the ReflowPDF engine, version 1.0.8, on 15 November 2026. reflowpdf.com

About this document

The blue notes in the bottom margin name the CSS behind the pages they stand on; page 3 shows the style sheet itself, next to the markup it sets.

How this file was made

The engine read one HTML file, applied its style sheet, broke the text into lines and pages, placed the footnotes and running heads, numbered the pages and wrote a tagged PDF. It is written in Rust; no web browser took part.

Checking the tags

Open the file in Acrobat Pro or in PAC (the PDF Accessibility Checker) and look at the tags: headings, paragraphs, lists, tables, figures and notes are tagged, and passages in Latin are marked as such. Page headers, page numbers and the blue notes in the bottom margin are page furniture, so a screen reader skips them. veraPDF 1.30.2, run with its PDF/UA-1 profile, reports the file as conforming.

Opening it in the editor

This copy was set directly by the engine service. A PDF downloaded from the editor with “Keep the PDF editable” turned on carries its HTML source inside, and the editor opens such a file again as editable blocks, without an account.

This file

Source
one HTML file with its style sheet, one image, four font families

Engine
ReflowPDF engine, version 1.0.8

Render time
1.8 s of processor time, median of three renders
(Intel Xeon E5-2690, 2.90 GHz)

Pages
12

Size
407 kB

Output
Tagged PDF; veraPDF 1.30.2, PDF/UA-1 profile: conforming

Fonts
embedded and subset; licences on page 12

Trying it

The editor
app.reflowpdf.com; it opens without an account, and then every page of a download carries a small mark

The playground
reflowpdf.com/playground; the engine compiled to WebAssembly, running in the browser

Plans and prices
reflowpdf.com/pricing

Checking a PDF
reflowpdf.com/pdf-accessibility-checker

About this document. Two columns from `display: grid`; the page count on the right is `target-counter()` pointing at the last element of the file; addresses are real links. This note is a running element (`position: running(note)`) placed in a margin box by `element(note)`.

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How the book pages were set

The rules below come from this file's style sheet unchanged. They give the book its own page size with mirrored margins, the running heads, the initial letter and the footnotes.

```
@page book:left {
  size: 6in 9in;
  margin: 17mm 18mm 24mm 24mm;
  @top-left { content: string(book-title); }
  @bottom-left { content: counter(page); }
  @footnote { border-top: 0.4pt solid #888; }
}
@page book:right {
  size: 6in 9in;
  margin: 17mm 24mm 24mm 18mm;
  @top-right {
    content: string(chapter, first-except);
  }
  @bottom-right { content: counter(page); }
  @footnote { border-top: 0.4pt solid #888; }
}
```

```
.book-title { string-set: book-title content(); }
.chapter-head h2 { string-set: chapter content(); }
.chapter p.opening::first-letter { initial-letter: 3; }
.chapter .lead-in { font-variant-caps: all-small-caps; }
.chapter span.footnote {
  float: footnote;
  footnote-display: block;
}
.chapter span.footnote::footnote-call {
  content: counter(footnote);
}
```

The markup of page 5

The opening of the chapter as it stands in the HTML; the paragraph runs on.

```
<header class="chapter-head">
  <h1 class="book-title">The History of the Decline and Fall of the Roman Empire</h1>
  <h2>Chapter I</h2>
  <p class="argument">Introduction — The extent and military force of the empire in the age of the Antonines.</p>
</header>
<div class="chapter">
<p class="opening"><span class="lead-in">In the second century</span> of the Christian Era, the empire of Rome
comprehended the fairest part of the earth, and the most civilized portion of mankind. The frontiers of that extensive
monarchy were …
```

Contents. Dot leaders from `leader(dotted)`; page numbers resolved after pagination by `target-counter(attr(href url), page)`. Each entry links to its page, and each section is a bookmark in the reader's outline. The CSS below is copied from this file's style sheet by the build.



Edward Gibbon. Engraved by John Hall after the portrait by Sir Joshua Reynolds; published by W. Strahan and T. Cadell, London, 1 February 1780. Facsimile of the plate.

Chapter I

Introduction — The extent and military force of the empire in the age of the Antonines.

In the second century of the Christian Era, the empire of Rome comprehended the fairest part of the earth, and the most civilized portion of mankind. The frontiers of that extensive monarchy were guarded by ancient renown and disciplined valor. The gentle but powerful influence of laws and manners had gradually cemented the union of the provinces. Their peaceful inhabitants enjoyed and abused the advantages of wealth and luxury. The image of a free constitution was preserved with decent reverence: the Roman senate appeared to possess the sovereign authority, and devolved on the emperors all the executive powers of government. During a happy period of more than fourscore years, the public administration was conducted by the virtue and abilities of Nerva, Trajan, Hadrian, and the two Antonines. It is the design of this, and of the two succeeding chapters, to describe the prosperous condition of their empire; and afterwards, from the death of Marcus Antoninus, to deduce the most important circumstances of its decline and fall: a revolution which will ever be remembered, and is still felt by the nations of the earth.

The principal conquests of the Romans were achieved under the republic; and the emperors, for the most part, were satisfied with preserving those dominions which had been acquired by the policy of the senate, the active emulations of the consuls, and the martial enthusiasm of the people. The seven first centuries were filled with a rapid succession of triumphs; but it was reserved for Augustus to relinquish the ambitious design of subduing the whole earth, and to introduce a spirit of moderation into the public councils. Inclined to peace by his temper and situation, it was easy for him

to discover that Rome, in her present exalted situation, had much less to hope than to fear from the chance of arms; and that, in the prosecution of remote wars, the undertaking became every day more difficult, the event more doubtful, and the possession more precarious and less beneficial. The experience of Augustus added weight to these salutary reflections, and effectually convinced him that, by the prudent vigor of his counsels, it would be easy to secure every concession which the safety or the dignity of Rome might require from the most formidable barbarians. Instead of exposing his person and his legions to the arrows of the Parthians, he obtained, by an honorable treaty, the restitution of the standards and prisoners which had been taken in the defeat of Crassus.[1]

His generals, in the early part of his reign, attempted the reduction of Ethiopia and Arabia Felix. They marched near a thousand miles to the south of the tropic; but the heat of the climate soon repelled the invaders and protected the unwarlike natives of those sequestered regions.[2] The northern countries of Europe scarcely deserved the expense and labor of conquest. The forests and morasses of Germany were filled with a hardy race of barbarians, who despised life when it was separated from freedom; and though, on the first attack, they seemed to yield to the weight of the Roman power, they soon, by a signal act of despair, regained their independence, and reminded Augustus of the vicissitude of fortune.[3] On the death of that emperor his testament was publicly read in the senate. He bequeathed, as a valuable legacy to his successors, the advice of confining the empire within those limits which nature seemed to have placed as its permanent bulwarks and

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1 Dion Cassius (l. LIV, p. 736), with the annotations of Hermann Reimar, who has collected all that Roman vanity has left upon the subject. The marble of Ancyra, on which Augustus recorded his own exploits, asserted that *he compelled* the Parthians to restore the ensigns of Crassus.

2 Strabo (l. XVI, p. 780), Pliny the Elder (*Naturalis historiae*, l. VI c. 32, 35,), and Dion Cassius (l. LIII, p. 723, and l. LIV, p. 734), have left us very curious details concerning these wars. The Romans made themselves masters of Mariaba, or Merab, a city of Arabia Felix, well known to the Orientals. (See Abulfeda and the Nubian geography, p. 52.) They were arrived within three days' journey of the spice country, the rich object of their invasion.

3 By the slaughter of Varus and his three legions. See the first book of the *Annals* of Tacitus, Suetonius in *De vita Caesarum*, "Augustus," c. 23, and Velleius Paterculus, l. II c. 117, etc. Augustus did not receive the melancholy news with all the temper and firmness that might have been expected from his character.

boundaries; on the west the Atlantic Ocean; the Rhine and Danube on the north; the Euphrates on the east; and towards the south the sandy deserts of Arabia and Africa.[4]

Happily for the repose of mankind, the moderate system recommended by the wisdom of Augustus was adopted by the fears and vices of his immediate successors. Engaged in the pursuit of pleasure or in the exercise of tyranny, the first Caesars seldom showed themselves to the armies, or to the provinces; nor were they disposed to suffer that those triumphs which *their* indolence neglected should be usurped by the conduct and valor of their lieutenants. The military fame of a subject was considered as an insolent invasion of the Imperial prerogative; and it became the duty, as well as interest, of every Roman general, to guard the frontiers entrusted to his care, without aspiring to conquests which might have proved no less fatal to himself than to the vanquished barbarians.[5]

The chapter continues in the full text; this file sets its first four paragraphs.

4 Tacitus, *Annales*, l. II, Dion Cassius, l. LVI, p. 833, and the speech of Augustus himself, in Julian's *Caesars*. It receives great light from the learned notes of his French translator, M. Ézéchiel, Freiherr von Spanheim.

5 Germanicus, Suetonius Paulinus, and Agricola were checked and recalled in the course of their victories. Corbulo was put to death. Military merit, as it is admirably expressed by Tacitus, was, in the strictest sense of the word, *imperatoria virtus*.

Footnotes and running heads. `float: footnote` moves each note to the foot of its page; the running head is `string(chapter, first-except)`.

The periodic table of the elements

Each cell gives the atomic number, symbol, name and abridged standard atomic weight (CIAAW, 2024). Elements with no standard atomic weight show a dash. The lanthanides (57–71) and actinides (89–103) are set below the main table; the categories of elements 113–118 are predicted, not measured.

- Alkali metal
- Alkaline earth metal
- Transition metal
- Post-transition metal
- Metalloid
- Reactive nonmetal
- Halogen
- Noble gas
- Lanthanide
- Actinide

1 H Hydrogen 1.0080																	2 He Helium 4.0026
3 Li Lithium 6.94	4 Be Beryllium 9.0122											5 B Boron 10.81	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998	10 Ne Neon 20.180
11 Na Sodium 22.990	12 Mg Magnesium 24.305											13 Al Aluminium 26.982	14 Si Silicon 28.085	15 P Phosphorus 30.974	16 S Sulfur 32.06	17 Cl Chlorine 35.45	18 Ar Argon 39.95
19 K Potassium 39.098	20 Ca Calcium 40.078	21 Sc Scandium 44.956	22 Ti Titanium 47.867	23 V Vanadium 50.942	24 Cr Chromium 51.996	25 Mn Manganese 54.938	26 Fe Iron 55.845	27 Co Cobalt 58.933	28 Ni Nickel 58.693	29 Cu Copper 63.546	30 Zn Zinc 65.38	31 Ga Gallium 69.723	32 Ge Germanium 72.630	33 As Arsenic 74.922	34 Se Selenium 78.971	35 Br Bromine 79.904	36 Kr Krypton 83.798
37 Rb Rubidium 85.468	38 Sr Strontium 87.62	39 Y Yttrium 88.906	40 Zr Zirconium 91.222	41 Nb Niobium 92.906	42 Mo Molybdenum 95.95	43 Tc Technetium –	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.91	46 Pd Palladium 106.42	47 Ag Silver 107.87	48 Cd Cadmium 112.41	49 In Indium 114.82	50 Sn Tin 118.71	51 Sb Antimony 121.76	52 Te Tellurium 127.60	53 I Iodine 126.90	54 Xe Xenon 131.29
55 Cs Caesium 132.91	56 Ba Barium 137.33	57–71	72 Hf Hafnium 178.49	73 Ta Tantalum 180.95	74 W Tungsten 183.84	75 Re Rhenium 186.21	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.97	80 Hg Mercury 200.59	81 Tl Thallium 204.38	82 Pb Lead 207.2	83 Bi Bismuth 208.98	84 Po Polonium –	85 At Astatine –	86 Rn Radon –
87 Fr Francium –	88 Ra Radium –	89–103	104 Rf Rutherfordium –	105 Db Dubnium –	106 Sg Seaborgium –	107 Bh Bohrium –	108 Hs Hassium –	109 Mt Meitnerium –	110 Ds Darmstadtium –	111 Rg Roentgenium –	112 Cn Copernicium –	113 Nh Nihonium –	114 Fl Flerovium –	115 Mc Moscovium –	116 Lv Livermorium –	117 Ts Tennessine –	118 Og Oganesson –

57 La Lanthanum 138.91	58 Ce Cerium 140.12	59 Pr Praseodymium 140.91	60 Nd Neodymium 144.24	61 Pm Promethium –	62 Sm Samarium 150.36	63 Eu Europium 151.96	64 Gd Gadolinium 157.25	65 Tb Terbium 158.93	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93	68 Er Erbium 167.26	69 Tm Thulium 168.93	70 Yb Ytterbium 173.05	71 Lu Lutetium 174.97
89 Ac Actinium –	90 Th Thorium 232.04	91 Pa Protactinium 231.04	92 U Uranium 238.03	93 Np Neptunium –	94 Pu Plutonium –	95 Am Americium –	96 Cm Curium –	97 Bk Berkelium –	98 Cf Californium –	99 Es Einsteinium –	100 Fm Fermium –	101 Md Mendelevium –	102 No Nobelium –	103 Lr Lawrencium –

A reference page. A landscape page in a portrait document (`page: wide`, `size: A4 landscape`). The table is an ordered list laid out as a CSS grid: each element is placed by `grid-row` and `grid-column`, and read in order of atomic number.

The 118 elements

Elements by atomic number, with abridged standard atomic weight, period, group and category.

Z	Symbol	Name	Atomic weight	Period	Group	Category
1	**H**	Hydrogen	1.0080	1	1	Reactive nonmetal
2	**He**	Helium	4.0026	1	18	Noble gas
3	**Li**	Lithium	6.94	2	1	Alkali metal
4	**Be**	Beryllium	9.0122	2	2	Alkaline earth metal
5	**B**	Boron	10.81	2	13	Metalloid
6	**C**	Carbon	12.011	2	14	Reactive nonmetal
7	**N**	Nitrogen	14.007	2	15	Reactive nonmetal
8	**O**	Oxygen	15.999	2	16	Reactive nonmetal
9	**F**	Fluorine	18.998	2	17	Halogen
10	**Ne**	Neon	20.180	2	18	Noble gas
11	**Na**	Sodium	22.990	3	1	Alkali metal
12	**Mg**	Magnesium	24.305	3	2	Alkaline earth metal
13	**Al**	Aluminium	26.982	3	13	Post-transition metal
14	**Si**	Silicon	28.085	3	14	Metalloid
15	**P**	Phosphorus	30.974	3	15	Reactive nonmetal
16	**S**	Sulfur	32.06	3	16	Reactive nonmetal
17	**Cl**	Chlorine	35.45	3	17	Halogen
18	**Ar**	Argon	39.95	3	18	Noble gas
19	**K**	Potassium	39.098	4	1	Alkali metal
20	**Ca**	Calcium	40.078	4	2	Alkaline earth metal
21	**Sc**	Scandium	44.956	4	3	Transition metal
22	**Ti**	Titanium	47.867	4	4	Transition metal
23	**V**	Vanadium	50.942	4	5	Transition metal
24	**Cr**	Chromium	51.996	4	6	Transition metal
25	**Mn**	Manganese	54.938	4	7	Transition metal
26	**Fe**	Iron	55.845	4	8	Transition metal
27	**Co**	Cobalt	58.933	4	9	Transition metal
28	**Ni**	Nickel	58.693	4	10	Transition metal
29	**Cu**	Copper	63.546	4	11	Transition metal
30	**Zn**	Zinc	65.38	4	12	Transition metal
31	**Ga**	Gallium	69.723	4	13	Post-transition metal
32	**Ge**	Germanium	72.630	4	14	Metalloid
33	**As**	Arsenic	74.922	4	15	Metalloid
34	**Se**	Selenium	78.971	4	16	Reactive nonmetal
35	**Br**	Bromine	79.904	4	17	Halogen
36	**Kr**	Krypton	83.798	4	18	Noble gas
37	**Rb**	Rubidium	85.468	5	1	Alkali metal
38	**Sr**	Strontium	87.62	5	2	Alkaline earth metal
39	**Y**	Yttrium	88.906	5	3	Transition metal
40	**Zr**	Zirconium	91.222	5	4	Transition metal
41	**Nb**	Niobium	92.906	5	5	Transition metal

Abridged standard atomic weights: IUPAC Commission on Isotopic Abundances and Atomic Weights (CIAAW), with the 2024 revisions. A dash marks an element with no standard atomic weight.

A table across pages. One `<table>` of 118 rows, figures in tabular lining numerals (`font-variant-numeric`).

Z	Symbol	Name	Atomic weight	Period	Group	Category
42	**Mo**	Molybdenum	95.95	5	6	Transition metal
43	**Tc**	Technetium	—	5	7	Transition metal
44	**Ru**	Ruthenium	101.07	5	8	Transition metal
45	**Rh**	Rhodium	102.91	5	9	Transition metal
46	**Pd**	Palladium	106.42	5	10	Transition metal
47	**Ag**	Silver	107.87	5	11	Transition metal
48	**Cd**	Cadmium	112.41	5	12	Transition metal
49	**In**	Indium	114.82	5	13	Post-transition metal
50	**Sn**	Tin	118.71	5	14	Post-transition metal
51	**Sb**	Antimony	121.76	5	15	Metalloid
52	**Te**	Tellurium	127.60	5	16	Metalloid
53	**I**	Iodine	126.90	5	17	Halogen
54	**Xe**	Xenon	131.29	5	18	Noble gas
55	**Cs**	Caesium	132.91	6	1	Alkali metal
56	**Ba**	Barium	137.33	6	2	Alkaline earth metal
57	**La**	Lanthanum	138.91	6	—	Lanthanide
58	**Ce**	Cerium	140.12	6	—	Lanthanide
59	**Pr**	Praseodymium	140.91	6	—	Lanthanide
60	**Nd**	Neodymium	144.24	6	—	Lanthanide
61	**Pm**	Promethium	—	6	—	Lanthanide
62	**Sm**	Samarium	150.36	6	—	Lanthanide
63	**Eu**	Europium	151.96	6	—	Lanthanide
64	**Gd**	Gadolinium	157.25	6	—	Lanthanide
65	**Tb**	Terbium	158.93	6	—	Lanthanide
66	**Dy**	Dysprosium	162.50	6	—	Lanthanide
67	**Ho**	Holmium	164.93	6	—	Lanthanide
68	**Er**	Erbium	167.26	6	—	Lanthanide
69	**Tm**	Thulium	168.93	6	—	Lanthanide
70	**Yb**	Ytterbium	173.05	6	—	Lanthanide
71	**Lu**	Lutetium	174.97	6	—	Lanthanide
72	**Hf**	Hafnium	178.49	6	4	Transition metal
73	**Ta**	Tantalum	180.95	6	5	Transition metal
74	**W**	Tungsten	183.84	6	6	Transition metal
75	**Re**	Rhenium	186.21	6	7	Transition metal
76	**Os**	Osmium	190.23	6	8	Transition metal
77	**Ir**	Iridium	192.22	6	9	Transition metal
78	**Pt**	Platinum	195.08	6	10	Transition metal
79	**Au**	Gold	196.97	6	11	Transition metal
80	**Hg**	Mercury	200.59	6	12	Transition metal
81	**Tl**	Thallium	204.38	6	13	Post-transition metal
82	**Pb**	Lead	207.2	6	14	Post-transition metal
83	**Bi**	Bismuth	208.98	6	15	Post-transition metal
84	**Po**	Polonium	—	6	16	Post-transition metal
85	**At**	Astatine	—	6	17	Halogen
86	**Rn**	Radon	—	6	18	Noble gas

Abridged standard atomic weights: IUPAC Commission on Isotopic Abundances and Atomic Weights (CIAAW), with the 2024 revisions. A dash marks an element with no standard atomic weight.

The table, continued. The header row is repeated by the engine on every page the table reaches (`thead`); rows are kept whole (`break-inside: avoid`).

Z	Symbol	Name	Atomic weight	Period	Group	Category
87	**Fr**	Francium	—	7	1	Alkali metal
88	**Ra**	Radium	—	7	2	Alkaline earth metal
89	**Ac**	Actinium	—	7	—	Actinide
90	**Th**	Thorium	232.04	7	—	Actinide
91	**Pa**	Protactinium	231.04	7	—	Actinide
92	**U**	Uranium	238.03	7	—	Actinide
93	**Np**	Neptunium	—	7	—	Actinide
94	**Pu**	Plutonium	—	7	—	Actinide
95	**Am**	Americium	—	7	—	Actinide
96	**Cm**	Curium	—	7	—	Actinide
97	**Bk**	Berkelium	—	7	—	Actinide
98	**Cf**	Californium	—	7	—	Actinide
99	**Es**	Einsteinium	—	7	—	Actinide
100	**Fm**	Fermium	—	7	—	Actinide
101	**Md**	Mendelevium	—	7	—	Actinide
102	**No**	Nobelium	—	7	—	Actinide
103	**Lr**	Lawrencium	—	7	—	Actinide
104	**Rf**	Rutherfordium	—	7	4	Transition metal
105	**Db**	Dubnium	—	7	5	Transition metal
106	**Sg**	Seaborgium	—	7	6	Transition metal
107	**Bh**	Bohrium	—	7	7	Transition metal
108	**Hs**	Hassium	—	7	8	Transition metal
109	**Mt**	Meitnerium	—	7	9	Transition metal
110	**Ds**	Darmstadtium	—	7	10	Transition metal
111	**Rg**	Roentgenium	—	7	11	Transition metal
112	**Cn**	Copernicium	—	7	12	Transition metal
113	**Nh**	Nihonium	—	7	13	Post-transition metal
114	**Fl**	Flerovium	—	7	14	Post-transition metal
115	**Mc**	Moscovium	—	7	15	Post-transition metal
116	**Lv**	Livermorium	—	7	16	Post-transition metal
117	**Ts**	Tennessine	—	7	17	Halogen
118	**Og**	Oganesson	—	7	18	Noble gas

Abridged standard atomic weights: IUPAC Commission on Isotopic Abundances and Atomic Weights (CIAAW), with the 2024 revisions. A dash marks an element with no standard atomic weight.

The end of the table. The footer (`tfoot`) closes the table on each page; atomic weights line up on the decimal point.

Colophon

Type

Source Serif 4 (Frank Grießhammer, Adobe) — text and headings; variable, with an optical-size axis. **EB Garamond** (Georg Duffner, Octavio Pardo) — the book pages. **Public Sans** (USWDS) — notes and labels. **IBM Plex Mono** (IBM) — code. All four under the SIL Open Font License 1.1; embedded in this file as subsets.

Text and images

Edward Gibbon, *The History of the Decline and Fall of the Roman Empire*, chapter I (1776), from the Standard Ebooks edition (standardebooks.org), released into the public domain (CC0); the notes and bracketed insertions of later editors are left out. Portrait of Gibbon engraved by John Hall after Sir Joshua Reynolds, 1780; scan from Wikimedia Commons, “Edward Gibbon (1737-1794).jpg”, public domain.

Data

Abridged standard atomic weights: CIAAW, ciaaw.org/abridged-atomic-weights.htm, with the 2024 revisions, retrieved 25 October 2026.

Production

ReflowPDF engine, version 1.0.8; 15 November 2026. Checked with veraPDF 1.30.2 (PDF/UA-1 profile).

Publisher

ReflowPDF, reflowpdf.com, a member of the PDF Association.

Colophon. Two columns from `display: grid`; the page count on page 2 is `target-counter()` pointing at the end of this page.