Colophon

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> ... TEX is potentially the most significant invention in typesetting this century. It introduces a standard language in computer typography and in terms of importance could rank near the introduction of the Gutenberg press.
>
> Gordon Bell (1979)[1]

THIS booklet was typeset using the 2007 TEXLive[2] implementation of the Open Source[3] LATEX 2ε system[4] on a PC (Mandriva2006-Linux operating system), and printed at 300 dpi from PDF files generated using PDFLATEX. In order to facilitate printing from Acrobat Reader, pages with Roman numbering (frontmatter) and Arabic numbering (mainmatter + backmatter) were printed from separate files.

The line drawing in Figure 5.1 and the iso-MAC charts were generated using mathsPIC$_{Perl}$.[5] Image manipulation was achieved using standard Open Source utilities, including GIMP, DVIPS, `fitps.pl`, `GhostScript`, `ps2pdf` and `epstopdf`. The text-editor used was KILE 1.6. The index was compiled automatically using the TEX package `makeindex`.

The 'hazard' glyph shown in the margin (used on page 38) was created by the famous Stanford computer scientist Donald Knuth[6] [7] and featured prominently in Knuth's TEX books. This delightful and unusual 'dangerous-bend' notation has a curious provenance; it was originally the brain-child of a remarkable and prolific group of mathematicians, known collectively as Bourbaki,[8] [9] who used a variant form of it to highlight the trickier mathematical sections in their series of books.

All the software (and operating system) used to typeset this booklet is Open Source and freely downloadable from the internet. All the TEX software is available on the Comprehensive TEX Archive Network (CTAN).[10] The TEX website is `http://www.tug.org/`. The English speaking TEX Usenet group is `comp.text.tex`.

The booklet structure, encoded in LATEX, is shown on the following page. All the special macros and new commands made to facilitate typesetting were collected in the configuration file `macros.cfg`.

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[1] In the Forword to: Knuth, DE (1979). *TEX and* METAFONT, *new directions in typesetting.* (American Mathematical Society and Digital Press, Stanford).

[2] `http://www.tug.org/texlive/`

[3] The Open Source initiative defines nine requirements which software must comply with for it to be regarded as 'Open Source'—see `http://www.opensource.org/docs/definition.html`.

[4] LATEX is the *de facto* standard for the communication and production of scientific documents (`http://www.latex-project.org`).

[5] `http://www.dante.de/CTAN/graphics/mathspic/perl/`

[6] Knuth DE (1990). *The TEXbook*, (American Mathematical Society & Addison-Wesley).

[7] DE Knuth. In: Shasha D and Lazere C (1995). *Out of their minds: the lives and discoveries of 15 great computer scientists* (Copernicus [Springer-Verlag New York]).

[8] Halmos PR (1957), "Nicolas Bourbaki". *Scientific American*, (May issue).

[9] Aczel AD (2007). *The artist and the mathematician: the story of Nicolas Bourbaki, the genius mathematician who never existed*, (High Stakes Publishing, London, UK.)

[10] `http://www.tug.org/ctan.html`

In order to have perfect alignment with back-to-back printing, some initial experimentation was necessary[11] in order to establish the printer offset (typically quite small) of the machine used by the printer, and allow for this when generating the pdf files—hence the following lines in the `\ifpdf ... \fi` environment below.

```
\addtolength{\printerhoffset}{0.775mm}
\addtolength{\hoffset}{\printerhoffset}
```

```
\documentclass[a4paper,10pt]{book}
\input{macros.cfg}
\usepackage{makeidx}\makeindex
\usepackage{rnbook,subfiles}
\usepackage{mathspic}
\usepackage{timenow}
\usepackage{fancyhdr}
\usepackage{ifpdf}
\usepackage{url,ellipsis}
\usepackage{oldstyle}
\usepackage{textcomp}   % for \textmu
\usepackage{mathptmx,lettrine}
\usepackage{rotating}   % rotated Brock colour pictures
\usepackage{booktabs, multirow} % tables
\usepackage[verbose]{microtype} % margin alignment
\usepackage{bigfoot} % fancy footnotes
\interfootnotelinepenalty=20000 % footnotes
    non-splitting
\dimen\footins=\maxdimen % footnotes
\usepackage{titlesec}
\titleformat*{\section}{\centering\Large\bfseries}
\usepackage{color,graphicx}
\ifpdf
   %\usepackage{showfram}  % show text edge
   %\usepackage[frame,a4,pdftex]{crop} % show paper
       edge
   \usepackage[a4,pdftex]{crop}
   \addtolength{\printerhoffset}{0.775mm}  % PrintShop
   \addtolength{\hoffset}{\printerhoffset}
   \usepackage{hyperref}
   \hypersetup{%pdftex,
         debug,
         pdftoolbar, pdfmenubar,
         plainpages=false,
         breaklinks=true,
         linktocpage,
         %pdfpagemode=None, %% bookmark window closed
         bookmarksopen=true,
         bookmarksopenlevel=0,
         bookmarksnumbered=true,
         bookmarkstype=toc,
         pdfwindowui,
```

[11] The latex file `testpage.tex` is excellent for this, as it typesets a large rectangle centered vertically and horizontally. When the pdf version is printed, the printing offset (deviation from center) can be accurately measured.

```
        hyperindex, hyperfigures=true, hyperfootnotes,
        colorlinks, urlcolor=blue,  linkcolor=blue,
        pdftitle=Notes on thoracic anaesthesia,
        pdfauthor=RWD Nickalls 2009,
        pdfsubject=anaesthesia,
        pdfkeywords={thoracic, anaesthesia,
            anesthesia},
        pdfstartview=FitH,
        pdfview=XYZ,
        pdfcenterwindow,
        pdfnewwindow,
        pdfpagelayout=SinglePage,
        pdfpagelabels,
        }
\else
\fi
\usepackage{decimal} %% after mathpaxo, hyperref
%---------------
\begin{document}
\subfile{tt-cover.tex}
\frontmatter
\subfile{tt-front.tex}
\subfile{ch-preface.tex}
\cleardoublepage
\tableofcontents
\addcontentsline{toc}{chapter}{Contents}
\cleardoublepage
\mainmatter
% set page headings
\pagestyle{empty}
\pagestyle{fancy}
\fancyfoot{}
\fancyhead{}
\fancyhead[LE,RO]{\oldstyle{\thepage}}
\fancyhead[RE, LO]{\small\leftmark}
% input chapters
\subfile{ch-gentopics.tex}
\subfile{ch-epidural.tex}
\subfile{ch-trachy.tex}
\subfile{ch-anatomy.tex}
\subfile{ch-bronch.tex}
\subfile{ch-tubes.tex}
\subfile{ch-onelung.tex}
\subfile{ch-drugs.tex}
\subfile{ch-support.tex}
\backmatter
\subfile{ch-colophon.tex}
\cleardoublepage
\addcontentsline{toc}{chapter}{Index}
% include the index
\begin{theindex}
%customise the .ind file
%makeindex -s makeindexraw.cfg  book-thoracic
\printindex
```

```
\end{theindex}
\end{document}
%-----------------
```

In practice, three pdf files are generated for the printer:

```
cover.pdf
frontpages.pdf
mainpages.pdf
```

The whole process is automated by writing batch files to coordinate and facilitate production.