

This PDF file is an excerpt from *The Unicode Standard, Version 4.0*, issued by the Unicode Consortium and published by Addison-Wesley. The material has been modified slightly for this online edition, however the PDF files have not been modified to reflect the corrections found on the Updates and Errata page (<http://www.unicode.org/errata/>). For information on more recent versions of the standard, see <http://www.unicode.org/standard/versions/enumeratedversions.html>.

Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and Addison-Wesley was aware of a trademark claim, the designations have been printed in initial capital letters. However, not all words in initial capital letters are trademark designations.

The Unicode® Consortium is a registered trademark, and Unicode™ is a trademark of Unicode, Inc. The Unicode logo is a trademark of Unicode, Inc., and may be registered in some jurisdictions.

The authors and publisher have taken care in preparation of this book, but make no expressed or implied warranty of any kind and assume no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages in connection with or arising out of the use of the information or programs contained herein.

The *Unicode Character Database* and other files are provided as-is by Unicode®, Inc. No claims are made as to fitness for any particular purpose. No warranties of any kind are expressed or implied. The recipient agrees to determine applicability of information provided.

*Dai Kan-Wa Jiten* used as the source of reference Kanji codes was written by Tetsuji Morohashi and published by Taishukan Shoten.

Cover and CD-ROM label design: Steve Mehallo, <http://www.mehallo.com>

The publisher offers discounts on this book when ordered in quantity for bulk purchases and special sales. For more information, customers in the U.S. please contact U.S. Corporate and Government Sales, (800) 382-3419, [corpsales@pearsontechgroup.com](mailto:corpsales@pearsontechgroup.com). For sales outside of the U.S., please contact International Sales, +1 317 581 3793, [international@pearsontechgroup.com](mailto:international@pearsontechgroup.com)

Visit Addison-Wesley on the Web: <http://www.awprofessional.com>

*Library of Congress Cataloging-in-Publication Data*

The Unicode Standard, Version 4.0 : the Unicode Consortium /Joan Aliprand... [et al.].

p. cm.

Includes bibliographical references and index.

ISBN 0-321-18578-1 (alk. paper)

1. Unicode (Computer character set). I. Aliprand, Joan.

QA268.U545 2004

005.7'2—dc21

2003052158

Copyright © 1991–2003 by Unicode, Inc.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher or Unicode, Inc. Printed in the United States of America. Published simultaneously in Canada.

For information on obtaining permission for use of material from this work, please submit a written request to the Unicode Consortium, Post Office Box 39146, Mountain View, CA 94039-1476, USA, Fax +1 650 693 3010 or to Pearson Education, Inc., Rights and Contracts Department, 75 Arlington Street, Suite 300 Boston, MA 02116, USA, Fax: +1 617 848 7047.

ISBN 0-321-18578-1

Text printed on recycled paper

1 2 3 4 5 6 7 8 9 10—CRW—0706050403

First printing, August 2003

# References

Citations are given for the standards and dictionaries that were used as the actual resources for *The Unicode Standard*, primarily for Version 1.0. Where a Draft International Standard is known to have progressed to International Standard status, the entry for the DIS has been revised. *A revised or reaffirmed edition, with a different date, may have been published subsequently.* For the current version of a standard, see the catalog issued by the standards organization. The Web site of the International Organization for Standardization (<http://www.iso.org>) includes the *ISO Catalogue* and links to the sites of member organizations. Many of the ISO character set standards were originally developed by ECMA and are also ECMA standards.

In general, American library practice has been followed for the romanization of titles and names written in non-Roman script. Exceptions are when information supplied by an author had to be used because the name or title in the original script was unavailable.

---

## R.1 Source Standards and Specifications

This section identifies the standards and specifications used as sources for the Unicode Standard. The section also includes selected current standards and specifications relevant to the use of coded character sets.

**AAT:** “About Apple Advanced Typography Fonts.” In *TrueType Reference Manual*, Chapter 6: *Font Files*. Apple Computer, ©1997–2002 (last updated 18 Dec 2002).

<http://developer.apple.com/fonts/TTRefMan/RM06/Chap6AATIntro.html>

**ANSI X3.4:** American National Standards Institute. *Coded character set—7-bit American national standard code for information interchange*. New York: 1986. (ANSI X3.4-1986).

**ANSI X3.32:** American National Standards Institute. *American national standard graphic representation of the control characters of American national standard code for information interchange*. New York: 1973. (ANSI X3.32-1973).

**ANSI Y10.20:** American National Standards Institute. *Mathematic signs and symbols for use in physical sciences and technology*. New York: 1988. (ANSI Y10.20-1975 (R1988)).

**ANSI Z39.47:** American National Standards Institute. *Extended Latin alphabet coded character set for bibliographic use*. New York: 1985. (ANSI Z39.47-1985).

**ANSI Z39.64:** American National Standards Institute. *East Asian character code for bibliographic use*. New Brunswick, NJ: Transaction, 1991. (ANSI Z39.64-1989).

**ASMO 449:** Arab Organization for Standardization and Metrology. *Data processing 7-bit coded character set for information interchange*. [s.l.]: 1983. (Arab standard specifications, 449-1982). Authorized English translation.

**CCCI:** *Zhongwen Zixun Jiaohuanma (Chinese Character Code for Information Interchange)*. Revised edition. Taipei: Xingzhengyuan Wenhua Jianshe Xiaozu (Executive Yuan Committee for Cultural Construction), 1985.

**CNS 11643-1986:** *Tongyong hanzi biao zhun jiaohuanma (Han character standard interchange code for general use)*. Taipei: Xingzhengyuan (Executive Yuan), 1986.

**CNS 11643-1992:** *Zhongwen biao zhun jiaohuanma (Chinese standard interchange code)*. Taipei: 1992.

Obsoletes 1986 edition.

**EACC:** (See ANSI Z39.64.)

**ECMA Registry:** (See ISO Register.)

**ELOT 1373:** Hellenic Organization for Standardization (ELOT). *The Greek Byzantine musical notation system*. Athens: 1997.

**GB 2312:** *Xinxi jiaohuanyong hanzi bianmajì, jibenji (Code of Chinese graphic character set for information interchange, primary set)*. Beijing: Jishu Biao zhun Chubanshe (Technical Standards Press), 1981. (GB 2312-1980).

**GB 12345:** *Xinxi jiaohuanyong hanzi bianmajì, fuzhuji (Code of Chinese ideogram set for information interchange, supplementary set)*. Beijing: Jishu Biao zhun Chubanshe (Technical Standards Press), 1990. (GB 12345-1990).

**GB 13000:** *Xinxi jishu—Tongyong duobawei bianma zifuji (UCS)—Diyi bufen: Tixi jiegou yu jiben duowenzhong pingmian (Information technology—Universal multiple-octet coded character set (UCS)—Part 1: Architecture and basic multilingual plane)*. Beijing: Jishu Biao zhun Chubanshe (Technical Standards Press), 1993. (GB 13000.1-93) (ISO/IEC 10646.1-1993).

**GB 13134:** *Xinxi jiaohuanyong yiwen bianma zifuji (Yi coded character set for information interchange)*, [prepared by] Sichuansheng Minzushiwu Weiyuanhui. Beijing: Jishu Biao zhun Chubanshe (Technical Standards Press), 1991. (GB 13134-1991).

**GB 18030:** *Xinxi jishu—Xinxi jiaohuan yong hanzi bianma zifuji—Jibenji de kuochong. (Information technology—Chinese ideograms coded character set for information interchange—Extension for the basic set)*. Beijing: Guojiao zhiliang jishu jiandu ju, 2000. (GB 18030-2000).

**GBK:** *Xinxi jiaohuanyong hanzi bianma kuozhan guifan (Extended Code of Chinese graphic character set for information interchange)*. Beijing: Zhongguo dianzi gongye bu [and] Guojiao jishu jiandu ju, 1995.

The Chinese-specific subset of GB 13000.1-93.

**HKSCS-2001:** *Hong Kong Supplementary Character Set – 2001*. Hong Kong: Information Technology Services Department & Official Languages Agency, Government of the Hong Kong Special Administrative Region, 2001.

English: [http://www.info.gov.hk/digital21/eng/hkscs/download/e\\_hkscs.pdf](http://www.info.gov.hk/digital21/eng/hkscs/download/e_hkscs.pdf)

Chinese: [http://www.info.gov.hk/digital21/chi/hkscs/download/c\\_hkscs.pdf](http://www.info.gov.hk/digital21/chi/hkscs/download/c_hkscs.pdf)

**Irish Standard 434:1999.** *Information technology—8-bit single-byte graphic coded character set for Ogham / Teicneolaíocht eolais—Tacar carachtar grafach Oghaim códaithe go haon-bheartach le 8 ngiotán.*

**ISCII-88:** India. Department of Electronics. *Indian script code for information interchange*. New Delhi: 1988.

**ISCII-91:** India. Bureau of Indian Standards. *Indian script code for information interchange*. New Delhi: 1991.

**ISIRI 3342:** Institute of Standards and Industrial Research of Iran. *estaandaar-e tabaadol-e ettelaa'aat-e 8 biti-e faarsi = Farsi 8-bit coded character set for information interchange*. Tehran: 1372 [i.e. 1993]. (ISIRI 3342:1993).

**ISO Register:** International Organization for Standardization. *ISO international register of coded character sets to be used with escape sequences*.

Current register: <http://www.itscj.ipsj.or.jp/ISO-IR/>

**ISO 639:** International Organization for Standardization. *Code for the representation of names of languages*. [Geneva]: 1988. (ISO 639:1988).

**ISO/IEC 646:** International Organization for Standardization. *Information technology—ISO 7-bit coded character set for information interchange*. [Geneva]: 1991. (ISO/IEC 646:1991).

**ISO/IEC 2022:** International Organization for Standardization. *Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques*, 3rd ed. [Geneva]: 1986. (ISO 2022:1994).

Edition 4 (ISO/IEC 2022:1994) has title: *Information technology—Character code structure and extension techniques*.

**ISO 2033:** International Organization for Standardization. *Information processing—Coding of machine-readable characters (MICR and OCR)*, 2nd ed. [Geneva]: 1983. (ISO 2033:1983).

**ISO 2047:** International Organization for Standardization. *Information processing—Graphical representations for the control characters of the 7-bit coded character set*. [Geneva]: 1975. (ISO 2047:1975).

**ISO/IEC 2375:** International Organization for Standardization. *Information technology—Procedure for registration of escape sequences and coded character sets*. [Geneva]: 2003. (ISO/IEC 2375:2003).

**ISO 3166:** International Organization for Standardization. *Codes for the representation of names of countries and their subdivisions*. [Geneva]. Part 1: *Country Codes* (ISO 3166-1:1997). Part 2: *Country subdivision code* (ISO 3166-2:1998). Part 3: *Code for formerly used names of countries* (ISO 3166-3:1999).

**ISO/IEC 4873:** International Organization for Standardization. *Information technology—ISO 8-bit code for information interchange—Structure and rules for implementation*. [Geneva]: 1991. (ISO/IEC 4873:1991).

**ISO 5426:** International Organization for Standardization. *Extension of the Latin alphabet coded character set for bibliographic information interchange*, 2nd ed. [Geneva]: 1983. (ISO 5426:1983).

**ISO 5426-2:** International Organization for Standardization. *Information and documentation—Extension of the Latin alphabet coded character set for bibliographic information interchange—Part 2: Latin characters used in minor European languages and obsolete typography*. [Geneva]: 1996. (ISO 5426-2:1986).

**ISO 5427:** International Organization for Standardization. *Extension of the Cyrillic alphabet coded character set for bibliographic information interchange*. [Geneva]: 1984. (ISO 5427:1984).

**ISO 5428:** International Organization for Standardization. *Greek alphabet coded character set for bibliographic information interchange*. [Geneva]: 1984. (ISO 5428-1984).

**ISO/IEC 6429:** International Organization for Standardization. *Information technology—Control functions for coded character sets*, 3rd ed. [Geneva]: 1992. (ISO/IEC 6429:1992).

**ISO 6438:** International Organization for Standardization. *Documentation—African coded character set for bibliographic information interchange*. [Geneva]: 1983. (ISO 6438:1983).

**ISO 6862:** International Organization for Standardization. *Information and documentation—Mathematics character set for bibliographic information interchange*. [Geneva]: 1996. (ISO 6862:1996).

**ISO/IEC 6937:** International Organization for Standardization. *Information processing—Coded character sets for text communication*. [Geneva]: 1984.

Edition 2 (ISO/IEC 6937:1994) has the following title: *Information technology—Coded graphic set for text communication—Latin alphabet*.

**ISO/IEC 8859:** International Organization for Standardization. *Information processing—8-bit single-byte coded graphic character sets*. [Geneva]: 1987–.

These parts of ISO/IEC 8859 predate the Unicode Standard, Version 1.0, and were used as resources: Part 1, *Latin alphabet No. 1*; Part 2, *Latin alphabet No. 2*; Part 3, *Latin alphabet No. 3*; Part 4, *Latin alphabet No. 4*; Part 5, *Latin/Cyrillic alphabet*; Part 6, *Latin/Arabic alphabet*; Part 7, *Latin/Greek alphabet*; Part 8, *Latin/Hebrew alphabet*; Part 9, *Latin alphabet No. 5*.

The other parts of ISO/IEC 8859 are: Part 10, *Latin alphabet No. 6*; Part 11, *Latin/Thai alphabet*; Part 13, *Latin alphabet No. 7*; Part 14, *Latin alphabet No. 8 (Celtic)*; Part 15, *Latin alphabet No. 9*; Part 16, *Latin alphabet No. 10*. There is no Part 12.

**ISO 8879:** International Organization for Standardization. *Information processing—Text and office systems—Standard generalized markup language (SGML)*. [Geneva]: 1986. (ISO 8879:1986).

**ISO 8957:** International Organization for Standardization. *Information and documentation—Hebrew alphabet coded character sets for bibliographic information interchange*. [Geneva]: 1996. (ISO 8957:1996).

**ISO 9036:** International Organization for Standardization. *Information processing—Arabic 7-bit coded character set for information interchange*. [Geneva]: 1987. (ISO 9036:1987).

**ISO/IEC 9573-13:** International Organization for Standardization. *Information technology—SGML support facilities—Techniques for using SGML—Part 13: Public entity sets for mathematics and science*. [Geneva]: 1991. (ISO/IEC TR 9573-13:1991).

**ISO/IEC 9995-7:** International Organization for Standardization. *Information technology—Keyboard layouts for text and office systems—Part 7: Symbols used to represent functions*. [Geneva]: 1994. (ISO/IEC 9995-7:1994).

**ISO/IEC 10367:** International Organization for Standardization. *Information technology—Standardized coded graphic character sets for use in 8-bit codes*. [Geneva]: 1991. (ISO/IEC 10367:1991).

**ISO 10585:** International Organization for Standardization. *Information and documentation—Armenian alphabet coded character set for bibliographic information interchange*. [Geneva]: 1996. (ISO 10585:1996).

**ISO 10586:** International Organization for Standardization. *Information and documentation—Georgian alphabet coded character set for bibliographic information interchange*. [Geneva]: 1996. (ISO 10586:1996).

**ISO/IEC 10646:** International Organization for Standardization. *Information Technology—Universal Multiple-Octet Coded Character Set (UCS)*. [Geneva]: 2003. (ISO/IEC 10646:2003).

Version 4.0 is synchronized with this new version of ISO/IEC 10646, which consolidates earlier versions published as two parts into a single standard designated “first edition.”

**ISO 10754:** International Organization for Standardization. *Information and documentation—Extension of the Cyrillic alphabet coded character set for non-Slavic languages for bibliographic information interchange*. [Geneva]: 1996 (ISO 10754:1996).

**ISO/TR 11548-1:** International Organization for Standardization. *Communication aids for blind persons—Identifiers, names and assignment to coded character sets for 8-dot Braille characters—Part 1: General guidelines for Braille identifiers and shift marks*. [Geneva]: 2001. (ISO/TR 11548-2001).

**ISO/TR 11548-2:** International Organization for Standardization. *Communication aids for blind persons—Identifiers, names and assignment to coded character sets for 8-dot Braille characters—Part 2: Latin alphabet based character sets*. [Geneva]: 2001. (ISO/TR 11548-2:2001).

**ISO 11822:** International Organization for Standardization. *Information and documentation—Extension of the Arabic coded character set for bibliographic information interchange*. [Geneva]: 1996. (ISO 11822:1996).

**ISO/IEC 14651:** International Organization for Standardization. *Information technology—International string ordering and comparison—Method for comparing character strings and description of the common template tailorable ordering*. [Geneva]: 2001. (ISO/IEC 14651:2001).

**ISO 15924:** International Organization for Standardization. *Information and Documentation—Codes for the representation of names of scripts = Information et documentation—Codes pour la représentation des noms d'écritures*. Bilingual edition = Édition bilingue. [Geneva: in press]. (ISO 15924:2003).

**JIS X 0208:** Japanese Industrial Standards Committee. *7 bitto oyobi 8 bitto no 2 baito jouhou koukan you fugouka kanji shuugou (7-bit and 8-bit double byte coded kanji sets for information interchange)*. Tokyo: Japanese Standards Association, 1997. (JIS X 0208:1997).

Revision of the 1990 edition, which was the original source for the Unicode Standard.

**JIS X 0212:** Japanese Industrial Standards Committee. *Jouhou koukan you kanji fugou—hojo kanji (Code of the supplementary Japanese graphic character set for information interchange)*. Tokyo: Japanese Standards Association, 1990. (JIS X 0212:1990).

**JIS X 0213:** Japanese Industrial Standards Committee. *7 bitto oyobi 8 bitto no 2 baito jouhou koukan you fugouka kakuchou kanji shuugou (7-bit and 8-bit double byte coded extended kanji sets for information interchange)*. Tokyo: Japanese Standards Association, 2000. (JIS X 0213:2000).

**JIS X 0221:** Japanese Industrial Standards Committee. *Information Technology—Universal Multiple-Octet Coded Character Set (UCS)—Part 1: Architecture and Basic Multilingual Plane*. Tokyo: Japanese Standards Association, 2001. (JIS X 0221-1:2001).

Identical to ISO/IEC 10646-1:2000.

**KS C 5601:** Korea Industrial Standards Association. *Chongbo kyohwanyong puho (Han'gul mit Hancha)*. Seoul: 1989. (KS C 5601-1987).

**KS X 1001:** Korean Agency for Technology and Standards. *Chongbo kyohwanyong puho (Han'gul mit Hancha). (Code for information interchange (Hanguel and Hanja))*. Seoul: 1992. (KS X 1001-1992).

Last confirmed 1998. Originally designated as KS C 5601-1992.

**KS X 1002:** Korean Agency for Technology and Standards. *Chongbo kyohwanyong puho hwakchang set'u. (Extension code sets for information interchange.)* Seoul: 1991. (KS X 1002-1991).

Last confirmed 1996. Originally designated as KS C 5657-1991.

MIME. See RFCs 2045-2049.

**OpenType:** *OpenType™ Specification*, version 1.4.

<http://partners.adobe.com/asn/developer/opentype/main.html> (Adobe Systems, ©2000–2003).

<http://www.microsoft.com/typography/otspec/> (Microsoft, ©2001).

The RFCs listed below are available through the *Request for Comments* page of the IETF Web site (<http://www.ietf.org/rfc.html>). This page provides for retrieval by RFC number, and includes a list of all RFCs in numerical order (*RFC Index*).

**RFC 2045:** *Multipurpose Internet Mail Extensions (MIME). Part One: Format of Internet message bodies*, by N. Freed and N. Borenstein. November 1996. (Status: DRAFT STANDARD).

Updated by RFC 2184, RFC 2231.

**RFC 2046:** *Multipurpose Internet Mail Extensions (MIME). Part Two: Media types*, by N. Freed and N. Borenstein. November 1996. (Status: DRAFT STANDARD).

Updated by RFC 2646.

**RFC 2047:** *MIME (Multipurpose Internet Mail Extensions). Part Three: Message header extensions for non-ASCII text*, by K. Moore. November 1996. (Status: DRAFT STANDARD).

Updated by RFC 2184, RFC 2231.

**RFC 2048:** *Multipurpose Internet Mail Extensions (MIME). Part Four: Registration procedures*, by N. Freed, J. Klensin, and J. Postel. November 1996. (Also BCP0013). (Status: BEST CURRENT PRACTICE).

Updated by RFC 3023.

**RFC 2049:** *Multipurpose Internet Mail Extensions (MIME). Part Five: Conformance criteria and examples*. N. Freed and N. Borenstein. November 1996. (Status: DRAFT STANDARD).

**RFC 2152:** *UTF-7: A mail-safe transformation format of Unicode*, by D. Goldsmith and M. Davis. May 1997. (Status: INFORMATIONAL).

**RFC 2279:** *UTF-8: A transformation format of ISO 10646*, by F. Yergeau. January 1998. (Status: DRAFT STANDARD).

**RFC 3066:** *Tags for the identification of languages*, by Harald Alvestrand. January 2001. (Also BCP0047). (Status: BEST CURRENT PRACTICE).

**SI 1311.1:** Standards Institution of Israel. *Information technology: ISO 8-bit coded character set with Hebrew points*. [Tel Aviv: 1996] (SI 1311.1 (1996)).

**SI 1311.2:** Standards Institution of Israel. *Information technology: ISO 8-bit coded character set with Hebrew accents*. [Tel Aviv: 1996] (SI 1311.2 (1996)).

**TIS 620-2529:** Thai Industrial Standards Institute, Ministry of Industry. *Thai Industrial Standard for Thai character code for computer*. Bangkok: 1986. (TIS 620-2529–1986).

**TIS 620-2533:** Thai Industrial Standards Institute, *Standard for Thai character codes for computers*. Bangkok: 1990. (TIS 620-2533–1990). ISBN 974-606-153-4.

In Thai. Online version: <http://www.nectec.or.th/it-standards/std620/std620.htm>

*Extensible Markup Language (XML) 1.0*. 2nd ed. (W3C Recommendation 6 October 2000). Editors: Tim Bray, Jean Paoli, C. M. Sperberg-McQueen, [and] Eve Maler.

<http://www.w3.org/TR/REC-xml>

*Extensible Markup Language (XML), 1.1.* (W3C Candidate Recommendation 15 October 2002). Editor: John Cowan.

<http://www.w3.org/TR/xml11/>

---

## R.2 Source Dictionaries for Han Unification

*Dae Jaweon.* Seoul: Samseong Publishing Co. Ltd., 1988.

*Dai Kan-Wa Jiten / Morohashi Tetsuji cho.* Shu teiban. Tokyo: Taishukan Shoten, Showa 59-61 [1984–86].

*Hanyu Da Zidian.* 1st ed. Chendu: Sichuan Cishu Publishing, 1986.

*KangXi Zidian.* 7th ed. Beijing: Zhonghua Bookstore, 1989.

---

## R.3 Other Sources for the Unicode Standard

### General

*ALA-LC Romanization Tables: Transliteration Schemes for Non-Roman scripts, Approved by the Library of Congress and the American Library Association.* Tables compiled and edited by Randall K. Barry. Washington, DC: Library of Congress, 1997. ISBN 0-8444-0940-5.

### Canadian Aboriginal Syllabics

Canadian Aboriginal Syllabic Encoding Committee. *Repertoire of Unified Canadian Aboriginal Syllabics Proposed for Inclusion into ISO/IEC 10646: International Standard Universal Multiple-Octet Coded Character Set.* [Canada]: CASEC [1994].

### Cherokee

Alexander, J. T. *A Dictionary of the Cherokee Indian Language.* [Sperry, Oklahoma?]: Published by the author, 1971.

Holmes, Ruth Bradley. *Beginning Cherokee*, by Ruth Bradley Holmes and Betty Sharp Smith. 2nd ed. Norman: University of Oklahoma Press, 1977. ISBN 0-8061-1464-9.

*New Echota Letters: Contributions of Samuel A. Worcester to the Cherokee Phoenix*, edited by Jack Frederick Kilpatrick and Anna Gritts Kilpatrick. Dallas: Southern Methodist University Press, [s.d.].

Includes reprint of an article by S. A. Worcester, which appeared in the *Cherokee Phoenix*, Feb. 21, 1828.

**Cypriot** See Linear B and Cypriot.

### Deseret

*Encyclopedia of Mormonism*, entry for “Deseret Alphabet.”

New York: Macmillan, 1992. ISBN 0-02-904040-X.

Monson, Samuel C. *Representative American Phonetic Alphabets.* New York: 1954.

Ph.D. dissertation—Columbia University.

### Ethiopic

Armbruster, Carl Hubert. *Initia Amharica: An Introduction to Spoken Amharic.* Cambridge: Cambridge University Press, 1908–1920.

Launhardt, Johannes. *Guide to Learning the Oromo (Galla) Language*. Addis Ababa: Launhardt, [1973?].

Leslau, Wolf. *Amharic Textbook*. Weisbaden, Harrassowitz; Berkeley: University of California Press, 1968.

### Gothic

Ebbinghaus, Ernst. “The Gothic Alphabet.” In *The World’s Writing Systems*, edited by Peter T. Daniels and William Bright. New York: Oxford University Press, 1996. ISBN 0-19-507993-0.

### International Phonetic Alphabet

Esling, John. “Computer Coding of the IPA: Supplementary Report.” *Journal of the International Phonetic Association*, 20:1 (1990), 22–26.

International Phonetic Association. *Handbook of the International Phonetic Association: A Guide to the Use of the International Phonetic Alphabet*. Cambridge: Cambridge University Press, 1999. ISBN 0-521-65236-7; 0-521-63751-1 (pbk.).

International Phonetic Association.

<http://www2.arts.gla.ac.uk/IPA/ipa.html>

*Journal of the International Phonetic Association*, 24.2 (1994): 95–98, and 25.1 (1995): 21.

Pullum, Geoffrey K., and William A. Ladusaw. *Phonetic Symbol Guide*. 2nd ed. Chicago: University of Chicago Press, 1996. ISBN 0-226-68535-7; 0-226-68536-5 (pbk.).

Pullum, Geoffrey K. “Remarks on the 1989 Revision of the International Phonetic Alphabet.” *Journal of the International Phonetic Association*, 20:1 (1990), 33–40.

Wells, John Christopher. *Accents of English*. Cambridge, New York: Cambridge University Press, 1982.

Vol. 1: *Introduction*. ISBN 0-521-22919-7; ISBN 0-521-29719-2 (pbk.); vol. 2: *The British Isles*. ISBN 0-521-24224-X, ISBN 0-521-28540-2 (pbk.); vol. 3: *Beyond the British Isles*. ISBN 0-521-24225-8, ISBN 0-521-28541-0 (pbk.).

### Limbu

Bairagi Kaila, ed. *Limbu-Nepali-Angreji śabdakoś*. [Limbu-Nepali-English Dictionary.] Kathmandu: Royal Nepal Academy, [in press.]

Includes an introduction describing the Limbu script.

Cemjonga, Imana Simha. *Yakthun-Pene-Mikphula Pancheka*. = *Limbu-Nepali-Angareji śabdakoś*. = *Limbu-Nepali-English Dictionary*. [Lekhaka] Imanasimha Cemajon. [Kathmandu]: Nepala Ekedemi [2018 vi., i.e., 1962]

In Devanagari script. Author also known as Chemjong, Iman Singh.

Driem, George van. *A Grammar of Limbu*. Berlin, New York: Mouton de Gruyter, 1987. (Mouton grammar library, 4.) ISBN 0-89925-345-8.

Appendix: *Anthology of Kiranti scripts*, pp. 550–558.

Shafer, Robert. *Introduction to Sino-Tibetan*. Wiesbaden: Harrassowitz, 1966–1974.

Published in five parts with continuous pagination.

Sprigg, R. K. “Limbu Books in the Kiranti Script.” In International Congress of Orientalists (24th: 1957: Munich). *Akten des Vierundzwanzigsten Internationalen Orientalisten-Kongresses München 28. August bis 4. September 1957*, hrsg. von Herbert Franke. Wiesbaden: Deutsche Morgenländische Gesellschaft, in Kommission bei Franz Steiner Verlag, 1959.

The modern script described in this work is now outdated.

Sprigg, R. K. [Review of van Driem (1987)]. *Bulletin of the School of Oriental and African Studies, University of London*, 52 (1989):1.163–165.

Subba, B. B. *Limbu, Nepali, English Dictionary*. Gangtok: Text Book Unit, Directorate of Education, Govt. of Sikkim, 1979 [i.e. 1980].

Cover title: Yakthun-Pene-Mikphula-panchekva. In Limbu and Devnagari scripts.

Subba, B. B. *Yakthun huṣiṣṭam* (“Limbu self-teaching method”) = *Limbu akṣar gāiḍ* (“Limbu letter guide”). Gangtok: Kwaliti Stores, 1991?

In Nepali and Limbu.

Yonhān, Khel Rāj. *Limbū Nepālī śabdakoś*. [Lalitpur]: 2052 B.S. [i.e. 1995].

In Limbu script.

### Linear B and Cypriot

Bennett, Emmett L. “Aegean Scripts.” In *The World’s Writing Systems*, edited by Peter T. Daniels and William Bright. New York: Oxford University Press, 1996. ISBN 0-19-507993-0.

Chadwick, John. *The Decipherment of Linear B*. 2nd ed. London: Cambridge University Press., 1967 [i.e. 1968].

Chadwick, John. *Linear B and Related Scripts*. Berkeley: University of California Press; [London]: British Museum, 1987. (*Reading the Past*, v. 1.) ISBN 0-520-06019-9.

Hooker, J. T. *Linear B: An Introduction*. Bristol: Bristol Classical Press, 1980. ISBN 0-906515-69-6.

Corrected printing published 1983. ISBN 0-906515-69-6; 0-906515-62-9 (pbk.).

International Colloquium on Mycenaean Studies (3rd: 1961: Racine, WI). *Mycenaean Studies: Proceedings of the Third International Colloquium for Mycenaean Studies held at “Wingspread,” 4–8 September 1961*, edited by Emmett L. Bennett, Jr. Madison: University of Wisconsin Press, 1964.

Appendix: The Wingspread Convention for the Transcription of Mycenaean (Linear B) Texts: pp. 254–262.

Masson, Olivier. *Les Inscriptions chypriotes syllabiques: recueil critique et commenté*. Réimpr. augm. Paris: E. de Boccard, 1983.

Sampson, Geoffrey. *Writing Systems: A Linguistic Introduction*. Stanford, CA: Stanford University Press, 1985. ISBN 0-8047-1254-9.

Also published: London, Hutchinson. ISBN 0-09-156980-X; 0-09-173051-1 (pbk.).

Ventris, Michael. *Documents in Mycenaean Greek*. 1st ed. by Michael Ventris and John Chadwick with a foreword by Alan J. B. Wace. 2nd ed. by John Chadwick. Cambridge: Cambridge University Press, 1973. ISBN 0-521-08558-6.

### Mathematics

*Mathematical Markup Language (MathML) Version 2.0*. (W3C Recommendation 21 February 2001). Editors: David Carlisle, Patrick Ion, Robert Miner, [and] Nico Poppolier.

Latest version: <http://www.w3.org/TR/MathML2/>

STIPub Consortium. STIX (Scientific and Technical Information Exchange) Project.

<http://www.ams.org/STIX/>

Swanson, Ellen. *Mathematics into Type*. Updated ed, by Arlene O’Sean and Antoinette Schleyer. Providence, RI: American Mathematical Society, 1999. ISBN 0-8218-1961-5.

**Music**

Catholic Church. *Graduale Sacrosanctae Romanae Ecclesiae de Tempore et de Sanctis SS. D. N. Pii X. Pontificis Maximi*. Parisiis: Desclée, 1961. (*Graduale Romanum*, no. 696.)

Heussenstamm, George. *Norton Manual of Music Notation*. New York: W.W. Norton, 1987. ISBN 0-393-95526-5 (pbk.).

Kennedy, Michael. *Oxford Dictionary of Music*. Oxford, New York: Oxford University Press, 1985. ISBN 0-19-311333-3.

Second ed. published 1994. ISBN 0-19-869162-9.

*New Encyclopædia Britannica*. 15th ed. Entry for “Music.”

*The New Harvard Dictionary of Music*, edited by Don Michael Randel. Cambridge, MA: Belknap Press of Harvard University Press, 1986. ISBN 0-674-61525-5.

Ottman, Robert W. *Elementary Harmony: Theory and Practice*. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall, 1970. ISBN 0-13-257451-9.

Fifth ed. published 1998. ISBN 0-13-281610-5.

Rastall, Richard. *The Notation of Western Music: An Introduction*. London: Dent, 1983. ISBN 0-460-04205-X.

Also published: New York: St. Martin’s Press, 1982. ISBN 0-312-57963-2.

Read, Gardner. *Music Notation: A Manual of Modern Practice*. Boston: Allyn and Bacon, 1964.

Stone, Kurt. *Music Notation in the Twentieth Century: A Practical Guidebook*. New York: W.W. Norton, 1980. ISBN 0-393-95053-0.

*Understanding Music with AI: Perspectives on Music Cognition*, edited by Mira Balaban, Kemal Ebcioglu, and Otto Laske. Cambridge, MA: MIT Press; Menlo Park, CA: AAAI Press, 1992. ISBN 0-262-52170-9.

**Myanmar**

*Mranmā-Aṅglip abhidhān = Myanmar-English Dictionary*. Rankun: Dept. of Myanmar Language Commission, Ministry of Education, Union of Myanmar, 1993.

Compiled and edited by the Myanmar Language Commission.

*Mranmā cālui:poṅ:satpui kyam: nhañ. khwaithā:*. [Rankun]: 1996.

Translated title: Myanmar orthography treatise.

Roop, D. Haigh. *An Introduction to the Burmese Writing System*. [Honolulu]: Center for Southeast Asian Studies, University of Hawaii at Manoa, 1997. (*Southeast Asia Paper*, 11).

Originally published: New Haven: Yale University Press, 1972. (*Yale linguistic series*). ISBN 0-300-01528-3.

**Ogham**

McManus, Damian. *A Guide to Ogam*. Maynooth: An Sagart, 1991. (*Maynooth monographs*, 4). ISBN 1-87068-417-6.

**Old Italic**

Bonfante, Larissa. “The Scripts of Italy.” In *The World’s Writing Systems*, edited by Peter T. Daniels and William Bright. New York: Oxford University Press, 1996. ISBN 0-19-507993-0.

Cristofani, Mauro. “L’alfabeto etrusco.” In *Lingue e dialetti dell’Italia antica*, a cura di Aldo Larosdocimi. Roma: Biblioteca di storia patria, a cura dell’ Ente per la diffusione e l’educazione storia, 1978. (*Popoli e civiltà dell’Italia antica*, VI.)

Gordon, Arthur E. *Illustrated Introduction to Latin Epigraphy*. Berkeley: University of California Press, 1983. ISBN 0-520-03898-3.

Marinetti, Anna. *Le iscrizioni sudpicene*. I. *Testi*. Firenze: Olschki, 1985. ISBN 88-222-3331-X (v. 1).

Parlangèli, Oronzo. *Studi Messapici*. Milano: Istituto lombardo di scienze e lettere, 1960.

### Osmanya

*Afkeenna iyo fartiisa: buug koowaad*. Xamar: Goosanka afka iyo suugaanta Soomaalida, 1971.

Translated title: *Our language and its handwriting: book one*.

Cerulli, Enrico. “Tentativo indigeno di formare un alfabeto somalo.” *Oriente moderno*, 12 (1932): 212–213. ISSN 0030-5472.

Gaur, Albertine. *A History of Writing*. London: British Library, 1992. ISBN 0-7123-0270-0.

Also published: Rev. ed. New York: Cross River Press, 1992. ISBN 1-558-59358-6.

Gregersen, Edgar A. *Language in Africa: An Introductory Survey*. New York: Gordon and Breach, 1977. (*Library of Anthropology*). ISBN: 0-677-04380-5; 0-677-04385-6 (pbk.).

Maino, Mario. “L’alfabeto ‘Osmania’ in Somalia.” *Rassegna di studi etiopici*, 10 (1951): 108–121. ISSN 0390-3699.

Nakanishi, Akira. *Writing Systems of the World: Alphabets, Syllabaries, Pictograms*. Rutland, VT: Tuttle, 1980. ISBN 0-8048-1293-4; 0-8048-1654-9 (pbk.).

Revised translation of *Sekai no moji*.

### Philippine Scripts

*Doctrina Christiana: The First Book Printed in the Philippines, Manila 1593*. A facsimile of the copy in the Lessing J. Rosenwald Collection, with an introductory essay by Edwin Wolf II. Washington, DC: Library of Congress, 1947.

Kuipers, Joel C., and Ray McDermott. “Insular Southeast Asian Scripts.” In *The World’s Writing Systems*. Edited by Peter T. Daniels and William Bright. New York: Oxford University Press, 1996. ISBN 0-19-507993-0.

Santos, Hector. *The Living Scripts*. Los Angeles: Sushi Dog Graphics, 1995. (*Ancient Philippine scripts series*, 2).

User’s guide accompanying *Computer Fonts, Living Scripts* software.

Santos, Hector. *Our Living Scripts*. January 31, 1997.

<http://www.bibinka.com/dahon/living/living.htm>

Part of his *A Philippine Leaf*.

Santos, Hector. *The Tagalog Script*. Los Angeles: Sushi Dog Graphics, 1994. (*Ancient Philippine scripts series*, 1).

User’s guide accompanying *Tagalog Script Fonts* software.

Santos, Hector. *The Tagalog Script*. October 26, 1996.

<http://www.bibinka.com/dahon/tagalog/tagalog.htm>

Part of his *A Philippine Leaf*.

### Runic

Friesen, Otto von. *Runorna*. Stockholm: A. Bonnier, [1933]. (*Nordisk kultur*, 6).

Haugen, Einar Ingvald. *The Scandinavian Languages: An Introduction to Their History*. London: Faber, 1976. ISBN 0-571-10423-1.

Also published: Cambridge, MA: Harvard University Press, 1976. ISBN 0-674-79002-2.

Musset, Lucien. *Introduction à la runologie*. Paris: Aubier-Montaigne, 1965.

Page, Raymond Ian. *Runes*. Berkeley: University of California Press; [London]: British Museum, 1987. (*Reading the Past*). ISBN 0-520-06114-4.

British Museum Publications edition has ISBN 0-7141-8065-3.

### Shavian

*ConScript Unicode Registry* [by] John Cowan and Michael Everson. “E700–E72F Shavian.”

Included in the ConScript Registry (<http://www.evertype.com/standards/csur/index.html>) in 1997. Shavian was withdrawn from the ConScript Registry in 2001, because of its addition to the Unicode Standard and ISO/IEC 10646.

Crystal, David. *The Cambridge Encyclopedia of Language*. Cambridge, New York: Cambridge University Press, 1987. ISBN 0-521-26438-3.

2nd ed. Cambridge, New York: Cambridge University Press, 1997. ISBN 0-521-55050-5; 0-521-55967-7.

DeMeyere, Ross. *About Shavian*. 1997. <http://www.demeyere.com/Shavian/info.html>.

Shaw, George Bernard. *Androcles and the Lion: An Old Fable Renovated, by Bernard Shaw, with a Parallel Text in Shaw's Alphabet to Be Read in Conjunction Showing Its Economies in Writing and Reading*. Harmondsworth: Penguin Books, 1962.

### Sinhala

Gunasekara, Abraham Mendis. *A Comprehensive Grammar of the Sinhalese Language*. New Delhi: Asian Education Services, 1986.

Reprint of 1891 edition.

Samaranayake V. K. *A Standard Code for Information Interchange in Sinhalese*, by V. K. Samaranayake and S. T. Nandasara. 1990. (ISO/IEC JTC1/SC2/WG2 N673).

### Syriac

Kefarnissy, Paul. *Grammaire de la langue Araméenne syriaque*. Beyrouth: 1962.

Nöldeke, Theodor. *Compendious Syriac Grammar*. With a table of characters by Julius Euting. Translated from the 2nd and improved German ed., by James A. Crichton. London: Williams & Norgate, 1904.

Reprinted: Tel Aviv: Zion Pub. Co. [1970].

Robinson, Theodore Henry. *Paradigms and Exercises in Syriac Grammar*. 4th ed. Rev. by L. H. Brockington. Oxford: Clarendon Press; New York: Oxford University Press, 1962. ISBN 0-19-815416-X, 0-19-815458-5 (pbk.).

### Tai Le

Coulmas, Florian. *The Blackwell Encyclopedia of Writing Systems*. Oxford, Cambridge: Blackwell, 1996. ISBN 0-631-19446-0.

Dehong writing, pp. 118–119.

*Lá ai<sup>2</sup> mau<sup>3</sup> lá ai<sup>2</sup> ka va<sup>3</sup> mi<sup>2</sup> tse<sup>2</sup> lau ya pa me na<sup>4</sup> ka na: tá va íá na kó má<sup>6</sup> sá na<sup>2</sup> teh má<sup>6</sup>. Yina<sup>5</sup>lána<sup>5</sup> mina<sup>5</sup>su<sup>4</sup> su<sup>4</sup>pána<sup>2</sup>se<sup>3</sup>* (Yunnan minzu chubanshe). 1988. ISBN 7-5367-1100-4.

*Tsa va<sup>4</sup> má<sup>3</sup> hó va<sup>3</sup>: la ta<sup>6</sup> mé<sup>2</sup> sá ai<sup>3</sup> seh va<sup>2</sup> xo ŋa<sup>3</sup>. Yina<sup>5</sup>lána<sup>5</sup> mina<sup>5</sup>su<sup>4</sup> su<sup>4</sup>pána<sup>2</sup>se<sup>3</sup>* (Yunnan minzu chubanshe). 1997. ISBN 7-5367-1455-6.

**Thaana**

Geiger, Wilhelm. *Maldivian Linguistic Studies*. New Delhi: Asian Educational Services, 1996. ISBN 81-206-1201-9.

Originally published: Colombo: H. C. Cottle, Govt. Printer, 1919.

Maniku, Hassan Ahmed. *Say It in Maldivian (Dhivehi)*, [by] H. A. Maniku [and] J. B. Dis-anayaka. Colombo: Lake House Investments, 1990.

**Ugaritic**

O'Connor, M. "Epigraphic Semitic Scripts." In *The World's Writing Systems*, edited by Peter T. Daniels and William Bright. New York: Oxford University Press, 1996. ISBN 0-19-507993-0.

Walker, C. B. F. *Cuneiform*. London: British Museum Press, 1987. (*Reading the Past*, v. 3.) ISBN 0-7141-8059-9.

University of California Press edition has ISBN 0-520-06115-2 (pbk.).

**Yi**

Bburx Ddie Su (= Bian Xiezhe). *Nuo-su bbur-ma shep jie zzit: Syp-chuo se nuo bbur-ma syt mu curx su niep sha zho ddop ma bbur-ma syt mu wo yuop hop, Bburx Ddie da Su. = Yi wen jian zi ben: Yi Han wen duizhao ban*. Chengdu: Sichuan minzu chubanshe, 1984.

Bburx Ddie Su. *Nip huo bbur-ma ssix jie: Nip huo bbur-ma ssi jie Bburx Ddie curx Su. = Yi Han zidian*. Chengdu: Sichuan minzu chubanshe, 1990. ISBN 7-5409-0128-4.

---

## R.4 Selected Resources: Technical

André, Jacques. *Unicode, écriture du monde? / Jacques André, Henri Hudrisier*. Paris: Lavoisier, 2002. (*Document numérique*, v. 6, no. 3–4.) ISBN 2-7426-0594-7.

Apple Computer, Inc. *Guide to Macintosh Software Localization*. Reading, MA: Addison-Wesley, 1992. ISBN 0-201-60856-1.

Bishop, Mark. *How to Build a Successful International Web Site*. [Scottsdale, AZ]: Coriolis Group, 1998. ISBN 1-576-10158-4.

Bringhurst, Robert. *The Elements of Typographic Style*. 2nd ed. Point Roberts, WA: Hartley & Marks, 1996. ISBN 0-88179-133-4; 0-88179-132-6 (pbk.).

Chaundy, Theodore William. *The Printing of Mathematics: Aids for Authors and Editors and Rules for Compositors and Readers at the University Press, Oxford*. By T. W. Chaundy, P. R. Barrett and Charles Batey. London: Oxford University Press [1965].

Reprint of the second impression (revised) 1957.

Clews, John. *Language Automation Worldwide: The Development of Character Set Standards*. Harrogate: SESAME Computer Projects, 1988. ISBN 1-87009-501-4.

Deitsch, Andrew. *Java Internationalization* [by] Andrew Deitsch and David Czarnecki. Beijing, Sebastopol, CA: O'Reilly, 2001. ISBN 0-596-00019-7.

*Designing User Interfaces for International Use*, edited by Jakob Nielsen. Amsterdam, New York: Elsevier, 1990. ISBN 0-444-88428-9.

*Developing International Software* [by] Dr. International. 2nd ed. Redmond, WA: Microsoft, 2002. ISBN 0-7356-1583-7.

Also published: London: Chrysalis, 2002.

Esselink, Bert. *A Practical Guide to Localization*. Amsterdam, Philadelphia: John Benjamins, 2000. ISBN: 1-588-11006-0 (pbk.), 1-588-11005-2 (hardcover).

Rev. ed. of *A Practical Guide to Software Localization*.

Fernandes, Tony. *Global Interface Design*. Boston: AP Professional, 1995. ISBN: 0-12-253790-4 (pbk.).

Flanagan, David. *Java in a Nutshell*. 2nd ed. Sebastopol, CA: O'Reilly, 1997. ISBN 1-565-92262-X.

Garneau, Denis. *Keys to Sort and Search for Culturally-Expected Results*. [s.l.] IBM, 1990. (IBM document number GG24-3516, June 1, 1990).

Gillam, Richard. *Unicode Demystified: A Practical Programmer's Guide to the Encoding Standard*. Boston: Addison-Wesley, 2002. ISBN 0-201-70052-2.

Graham, Tony. *Unicode: A Primer*. Foster City, CA: MIS Press, M&T Books, 2000. ISBN 0-7645-4625-2.

*The Guide to Translation and Localization: Preparing Products for the Global Marketplace*. [3rd ed.] Portland, OR: Lingo Systems, 2000. ISBN 0-97039480-2.

Huang, K'o-tung. *An Introduction to Chinese, Japanese and Korean Computing*, by Jack K. T. Huang and Timothy D. Huang. Singapore, Teaneck, NJ: World Scientific, 1989. ISBN 9971-50-664-5.

IBM. *National Language Design Guide, Designing Enabled Products*. North York, Ontario: IBM Canada Ltd., National Language Technical Center, 1994. (*National Language Design Guide*, 1) (SE09-8001).

IBM. *National Language Support Reference Manual*. 4th ed. North York, Ontario: IBM Canada Ltd., National Language Technical Center, 1994. (*National Language Design Guide*, 2) (SE09-8002-03).

International Organization for Standardization. *Information Technology—An Operational Model for Characters and Glyphs*. Geneva: 1998. (ISO/IEC TR 15285:1998).

*International User Interfaces*, edited by Elisa M. del Galdo and Jakob Nielsen. New York: Wiley, 1996. ISBN: 0-471-14965-9.

*Internationalization: Developing Software for Global Markets* [by] Tuoc V. Luong [et al.]. New York: Wiley, 1995. ISBN 0-471-07661-9.

Kano, Nadine. *Developing International Software for Windows 95 and Windows NT*. Redmond, WA: Microsoft Press, 1995. ISBN 1-556-15840-8.

Kaplan, Michael S. *Internationalization with Visual Basic*. Indianapolis, IN: Sams, 2000. ISBN 0-672-31977-2 (pbk.).

Also published: Hemel Hempstead: Prentice-Hall, 2000.

Knuth, Donald E. *T<sub>E</sub>X, the Program*. Reading, MA: Addison-Wesley, 1986. (*Computers & Typesetting*, B). ISBN 0-201-13437-3.

Knuth, Donald E. *The T<sub>E</sub>Xbook*. 21st printing, rev. Reading, MA: Addison-Wesley, 1994. (*Computers & Typesetting*, A). ISBN 0-201-13448-9.

See also: <http://www.ams.org/text/publications.html>

Ksar, Michael Y. "Untying Tongues," *ISO Bulletin* (June 1993), 2–8.

Lamport, Leslie. *L<sup>A</sup>T<sub>E</sub>X, a Document Preparation System: User's Guide & Reference Manual*. 2nd ed. Reading, MA: Addison-Wesley, 1999, ©1994. ISBN 1-201-52983-1.

Updated for L<sup>A</sup>T<sub>E</sub>X 2nd ed.

*Language Culture Type: International Type Design in the Age of Unicode*, edited by John D. Berry; with a special section showing the winners in Bukva:Raz!, the type design competition of the Association typographique internationale. New York: ATypI, Graphis, 2002. ISBN 1-932026-01-0.

Lunde, Ken. *CJKV Information Processing*. Beijing [etc.]: O'Reilly, 1999. ISBN 1-56592-224-7.

Madell, Tom. *Developing and Localizing International Software* [by] Tom Madell, Clark Parsons, and John Abegg. Englewood Cliffs, NJ: PTR Prentice-Hall, 1994. ISBN: 0-13-300674-3.

*Mathematics in Type*. Richmond, VA: The William Byrd Press, [1954].

“Nonroman Scripts in the Bibliographic Environment.” In *Encyclopedia of Library and Information Science*, 56 (supplement 19), 260–283. New York: Dekker, 1995.

O'Donnell, Sandra Martin. *Programming for the World, a Guide to Internationalization*. Englewood Cliffs, NJ: PTR Prentice-Hall, 1994. ISBN 0-13-722190-8.

Ott, Chris. *Global Solutions for Multilingual Applications: Real World Techniques for Developers and Designers*. New York: Wiley, 1999. ISBN: 0-471-34827-9.

Savourel, Yves. *XML Internationalization and Localization*. Indianapolis, IN: Sams, 2001. ISBN 0-672-32096-7.

Also published: Hemel Hempstead: Prentice-Hall, 2001.

Schmitt, David A. *International Programming for Microsoft Windows*. Redmond, WA: Microsoft Press, 2000. ISBN 1-572-31956-9.

Symmonds, Nicholas. *Internationalization and Localization Using Microsoft.net*. Berkeley, CA: Apress, 2002. ISBN 1-590-59002-3.

Taylor, Dave. *Global Software: Developing Applications for the International Market*. New York: Springer-Verlag, 1992. ISBN 0-387-97706-6; ISBN 3-540-97706-6.

Tuthill, Bill. *Creating Worldwide Software: Solaris International Developer's Guide* [by] Bill Tuthill, and David Smallberg. 2nd ed. Mountain View, CA: Sun Microsystems Press, 1997. ISBN: 0-13-494493-3.

*Universal Multiple-Octet Coded Character Set Coexistence and Migration*. High Wycombe: X/Open Company, 1994. (*X/Open technical study*, E401.) ISBN 1-85912-031-8.

Uren, Emmanuel. *Software Internationalization and Localization: An Introduction* [by] Emmanuel Uren, Robert Howard, and Tiziana Perinotti. New York: Van Nostrand Reinhold, 1993. ISBN: 0-442-01498-8.

Wick, Karel. *Rules for Type-setting Mathematics*. Prague: Publishing House of the Czechoslovak Academy of Sciences, 1965.

*Yunikodo kanji joho jiten = Sanseido's Unicode Kanji Information Dictionary / Yunikodo Kanji Joho Jiten Henshu Iinkai hen*. Tokyo: Sanseido, 2000. ISBN 4-385-13690-4.

## R.5 Selected Resources: Scripts and Languages

### Bibliographies

*A Bibliography on Writing and Written Language*, edited by Konrad Ehlich, Florian Coulmas, and Gabriele Graefen. Berlin, New York: Mouton de Gruyter, 1996. (*Trends in Linguistics. Studies and Monographs*, 89.) ISBN 3-11-010158-0.

Contains references to about 27,500 publications covering mainly 1930–1992.

*Michael Everson's Cool Bibliography of Typography and Scripts.*

<http://www.evertype.com/scriptbib.html>

### Selected Works

Allworth, Edward. *Nationalities of the Soviet East: Publications and Writing Systems*. New York: Columbia University Press, 1971. ISBN 0-231-03274-9.

*The Alphabet Makers: A Presentation from the Museum of the Alphabet*, Waxhaw, North Carolina. 2nd ed. Huntington Beach, CA: Summer Institute of Linguistics, 1991. ISBN 0-938978-13-6.

*Alphabete und Schriftzeichen des Morgen- und Abendlandes*. 2. überarb. u. erw. Aufl. Berlin: Bundesdruckerei, 1969.

Bergsträsser, Gotthelf. *Introduction to the Semitic Languages: Text Specimens and Grammatical Sketches*. Translated with an appendix on the scripts by Peter T. Daniels. [2nd ed.] Winona Lake: Eisenbrauns, 1995. ISBN 0-931464-10-2.

Translation of *Einführung in die semitischen Sprachen*, 1928.

*The Book of a Thousand Tongues*, by Eugene A. Nida. Rev. ed. London: United Bible Society, 1972.

First ed. by Eric M. North, 1938.

Campbell, George L. *Compendium of the World's Languages*. London: Routledge, 1990. ISBN 0-415-06937-6 (set); 0-415-06978-5 (v.1); 0-415-06979-3 (v.2).

Cleator, Philip Ellaby. *Lost Languages*, by P. E. Cleator. London: Day, 1959.

Also published: London: R. Hale, [1959]; New York: John Day Co. [1961]; [New York]: New American Library [1962].

Comrie, Bernard, ed. *The Languages of the Soviet Union*. Cambridge: Cambridge University Press, 1981. ISBN 0-521-23230-9; 0-521-9877-6 (pbk.).

Comrie, Bernard, ed. *The World's Major Languages*. Oxford: Oxford University Press, 1987. ISBN 0-19-520521-9; 0-19-506511-5 (pbk.).

Coulmas, Florian. *The Blackwell Encyclopedia of Writing Systems*. Cambridge, MA: Blackwell, 1996. ISBN 0-631-19446-0.

Coulmas, Florian. *The Writing Systems of the World*. Oxford, New York: Blackwell, 1989.

Crystal, David. *The Cambridge Encyclopedia of Language*. 2nd ed. Cambridge, New York: Cambridge University Press, 1997. ISBN 0-521-55050-5; 0-521-55967-7 (pbk.).

Daniels, Peter T. *The World's Writing Systems*. (See *World's Writing Systems*.)

DeFrancis, John. *Visible Speech: The Diverse Oneness of Writing Systems*. Honolulu: University of Hawaii Press, 1989. ISBN 0-8248-1207-7.

Diringer, David. *The Alphabet: A Key to the History of Mankind*. 3rd ed., completely rev. with the assistance of Reinhold Regensburger. New York: Funk and Wagnalls, 1968.

Also published: London: Hutchinson. ISBN 0-906764-0-8.

Diringer, David. *Writing*. London: Thames and Hudson, 1962.

Also published: New York: Praeger.

Dixon, Robert M. W. *The Languages of Australia*. Cambridge: Cambridge University Press, 1980. ISBN 0-521-22329-6.

Drucker, Johanna. *The Alphabetic Labyrinth: The Letters in History and Imagination*. London: Thames & Hudson, 1999. ISBN 0-500-28068-1.

Endo, Shotoku. *Hayawakari chugoku kantai-ji*. Tokyo: Kokusho Kankokai, Showa 61 [1986].

Faulmann, Carl. *Das Buch der Schrift: enthaltend die Schriftzeichen und Alphabete aller Zeiten und aller Völker*. 2. verm. und verb. Aufl. Wien: Kaiserlich-Königliche Hof- und Staatsdruckerei, 1880.

Reprinted as: *Schriftzeichen und Alphabete aller Zeiten und Völker*. Augsburg: Augustus Verlag, 1990. ISBN 3-8043-0142-8.

Reprinted as: *Das Buch der Schrift: enthaltend die Schriftzeichen und Alphabete aller Zeiten und aller Völker des Erdkreises*. Frankfurt am Main: Eichborn, 1990. ISBN 3-8218-1720-8.

Friedrich, Johannes. *Extinct Languages*. New York: Philosophical Library, 1957.

Translation of *Entzifferung Verschollener Schriften und Sprachen*. Berlin: Springer-Verlag, 1954.

Also published: London: Peter Owen [1962]; Westport, CT: Greenwood Press [1971, ©1957]. ISBN 0-8371-5748-X; New York: Dorset Press, 1989, ©1957. ISBN 0-88029-338-1.

Friedrich, Johannes. *Geschichte der Schrift*. Heidelberg: C. Winter, 1966.

Gaur, Albertine. *A History of Writing*. Rev. ed. New York: Cross River Press, 1992. ISBN 1-558-59358-6.

Also published: London: British Library. ISBN 0-7123-0270-0.

Gelb, Ignace J. *A Study of Writing*. Rev. ed. Chicago: University of Chicago Press, 1963. ISBN 0-226-28605-3; 0-226-28606-1 (pbk.).

Giliarevskii, Rudzhero Sergeevich. *Languages Identification Guide*, by Rudzhero S. Gilyarevsky and Vladimir S. Grivnin. Moscow: Nauka, 1970.

Gordon, Cyrus Herzl. *Forgotten Scripts: How They Were Deciphered and Their Impact on Contemporary Culture* [by] Cyrus H. Gordon. New York: Basic Books [1968].

*The Gospel in Many Tongues: Specimens of 875 Languages ...* London: British and Foreign Bible Society, 1965.

Haarmann, Harald. *Universalgeschichte der Schrift*. Frankfurt: Campus Verlag, 1990. ISBN 3-593-34346-0.

Habein, Yaeko Sato. *The History of the Japanese Written Language*. Tokyo: University of Tokyo Press, 1984. ISBN 0-86008-347-0; 4-13-087047-5.

Healey, John F. *The Early Alphabet*. Berkeley: University of California Press; [London]: British Museum, 1990. (*Reading the Past*, 9). ISBN 0-520-07309-6.

British Museum Publications edition has ISBN 0-7141-8073-4.

*A History of Writing: From Hieroglyph to Multimedia*, edited by Anne-Marie Christin. Paris: Flammarion; London: Thames & Hudson, 2002. ISBN 2-08-010887-5.

Ifrah, Georges. *From One to Zero, a Universal History of Numbers*. New York: Penguin, 1987. ISBN 0-14-009919-0.

Translation of *Histoire universelle des chiffres*. Also published: New York: Viking, 1985. ISBN 0-670-37395-8.

Isaev, Magomet Izmailovich. *Sto tridtsat' ravnopravnykh: o iazykakh narodov SSSR*. Moskva: Nauka, 1970.

Jensen, Hans. *Sign, Symbol and Script: An Account of Man's Efforts to Write*. New York: Putnam, 1969.

Translation of *Die Schrift in Vergangenheit und Gegenwart* (Berlin: Deutscher Verlag, 1969). Also published: London: Allen & Unwin. ISBN 0-04-400021-9.

Katzner, Kenneth. *The Languages of the World*. New ed. London: Routledge, 1995. ISBN 0-415-11809-3.

Lyovin, Anatole. *Introduction to the Languages of the World*. New York: Oxford University Press, 1997. ISBN 0-19-508115-3; ISBN 0-19-508116-1 (pbk.)

Malherbe, Michel. *Les Langages de l'humanité: une encyclopédie des 3000 langues parlées dans le monde*. Paris: Laffont, 1995. ISBN 2-221-05947-6.

Muller, Siegfried H. *The World's Living Languages: Basic Facts of Their Structure, Kinship, Location, and Number of Speakers*. New York: Ungar, 1964.

Musaev, Kenesbai Musaevich. *Alfavity iazykov narodov SSSR*. Moskva: Nauka, 1965.

Naik, Bapurao S. *Typography of Devanagari*. 1st ed., rev. Bombay: Directorate of Languages, Govt. of Maharashtra, 1971.

Nakanishi, Akira. *Writing Systems of the World: Alphabets, Syllabaries, Pictograms*. Rutland, VT: Tuttle, 1980. ISBN 0-8048-1293-4; 0-8048-1654-9 (pbk.).

Revised translation of *Sekai no moji*.

Nida, Eugene A. *The Book of a Thousand Tongues*. (See *Book of a Thousand Tongues*.)

Pavlenko, Nikolai Andreevich. *Istoria pis'ma*. 2. izd. Minsk: Vysshaya Shkola, 1987.

Ramsey, S. Robert. *The Languages of China*. 2nd printing with revisions. Princeton: Princeton University Press, 1989. ISBN 0-691-01468-X.

Second ed. published London: Gollancz, 1974. ISBN 0-575-01758-9.

Robinson, Andrew. *The Story of Writing*. London: Thames and Hudson, 1995. ISBN 0-500-01665-8.

Ruhlen, Merritt. *A Guide to the World's Languages, volume 1: Classification, with a Postscript on Recent Developments*. Stanford, CA: Stanford University Press, 1991. ISBN 0-8047-1894-6 (v. 1).

Also published: London: Arnold. ISBN 0-340-56186-6 (v.1).

Sampson, Geoffrey. *Writing Systems: A Linguistic Introduction*. Stanford, CA: Stanford University Press, 1985. ISBN 0-8047-1254-9.

Also published: London: Hutchinson. ISBN 0-09-156980-X; 0-09-173051-1 (pbk.).

*Sekai moji jiten* / Kono, Rokuro; Chino, Eiichi; Nishida, Tatsuo. Tokyo: Sanseido, 2001. (*Gengogaku daijiten* = *The Sanseido Encyclopaedia of Linguistics*, 7). ISBN 4-385-15177-6.

Senner, Wayne M. *The Origins of Writing*. Lincoln: University of Nebraska Press, 1989. ISBN 0-8032-4202-6; 0-8032-9167-1 (pbk.).

Shepherd, Walter. *Shepherd's Glossary of Graphic Signs and Symbols*. Compiled and classified for ready reference by Walter Shepherd. New York: Dover, 1971. ISBN 0-486-20700-5.  
Also published: London: Dent. ISBN 0-460-03818-4.

Shinmura, Izuru. *Kojien / Shinmura Izuru hen*. Dai 4-han. Tokyo: Iwanami Shoten, 1991.

Stevens, John. *Sacred Calligraphy of the East*. 3rd ed., rev. and expanded. Boston: Shambala, 1995. ISBN 1-570-62122-5.

Suarez, Jorge A. *The Mesoamerican Indian Languages*. Cambridge: Cambridge University Press, 1983. ISBN 0-521-22834-4; 0-521-29669-2 (pbk.).

von Ostermann, Georg F. *Manual of Foreign Languages*. 4th ed., revised and enlarged. New York: Central Book Company, 1952.

Wemyss, Stanley. *The Languages of the World, Ancient and Modern: The Alphabets, Ideographs, and Other Written Characters of the World in Sound and Symbol*. Philadelphia: 1950.

*The World's Writing Systems*. Edited by Peter T. Daniels and William Bright. New York: Oxford University Press, 1996. ISBN 0-19-507993-0.