UNDEXÉ

UNESCO/MC/Conf. 9/10
PARIS, 8 December 1950

Distribution: limited Original: English

UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

REGIONAL CONFERENCE ON BRAILLE UNIFORMITY
(Middle East, India and S.E. Asia)

Interim Memorandum on Uniform Braille for India and South East Asia, with due reference to its Co-ordinated Relationship to the Braille of Other Areas.

By: Consultant on Braille, 22 August 1950
and amended and abridged, 25 October 1950

1. With the acceptance on 14 June 1950 by the Fifth Session of the Unesco General Conference of the recommendations of the International Meeting on Braille Uniformity and the agreement in principle with these recommendations by the Indian Government's Braille Committee, exploratory studies have continued in conformity with the general lines laid down. These have included: discussions in London with Professor Daniel Jones and others on the sounds of letters which should be represented in a world chart, and the drawing up of a tentative comparative table of International Phonetic Association symbols and tentative World Braille signs; discussions on a uniform Braille to meet the requirements of African languages; discussions on Arabic, Persian, Turkish and Maltese Brailles, and so on. Broad tentative agreements have been reached in a number of these fields; and this preliminary work is being continued so that the maximum of provisional agreement can be achieved prior to the holding of any conference.

2. In drafting this interim memorandum, due regard has been paid to the views of Professor Humayun Kabir, expressed in his letters to the Director-General of Unesco of 29 June and to the Consultant on Braille on 1 July. The desire for close Braille association between Indian scripts and those of Ceylon, Burma, Siam, Java, Cambodia, etc. has been given particular attention. Their existing adaptations have been included in the chart for purposes of reference. The following is extracted from a report to the Director-General by the Consultant on

Braille in respect to the foregoing area. The descriptions of these languages are taken from works by various authorities:

3. "Indian and South East Asian Regional Braille.

World uniformity, as defined in the International Meeting's recommendations, implies the closest uniformity between all associated languages and for practical purposes it is desirable that all the Brailles of India and South East Asia should be closely in tune. Burmese and Tibetan are described as belonging to the Sino-Tibetan family, to which, according to some scholars, Cambodian and Annamese also belong. Burmese and Tibetan belong to one sub-group of the family and Siamese to another. Javanese and Malay are members of the Indonesian sub-group of the Malayo-Polynesian family, while Sinhalese is a member of the Indo-Aryan branch of the Indo-European family. The system of Siamese writing is derived from the Devanageri of India, and is quite complicated, with 44 consonants, 32 vowels and 5 tones. Burmese writing also has its origin in Devanageri, but, as with Siamese, its descent from this script is largely disguised. It has 8 vowels, 27 common consonants and 3 tones.

4. "Braille Situation in South East Asia.

Burma, Siam, Ceylon and Malaya have Braille systems in active use, as follows:

5. "Burma: A system was designed by Father Jackson, the renowned blind priest and chief founder of blind welfare in that country, about 30 years ago. It was built on traditional Braille values so far as they went at that time, but outside this range, the selection of signs was necessarily arbitrary.

6. "Thailand (Siam): Siamese Braille was the work of a blind American lady, Miss Caulfield, about 10 or 15 years ago, and has been built on the same principle as Burmese Braille.

7. "Ceylon: Sinhalese Braille, designed in 1917, was a derivative of Tamil Braille and based on traditional values as they stood at that time. A little later it was given up in favour of a divergent Braille system known as Oriental Braille on the promise that a substantial quantity of literature printed in it would be forthcoming. In 1940, however, Ceylon decided to return to its earlier Braille, which more recently under Mr. Kingsley Dassanaike has been brought as closely as possible

into line with traditional Braille. Tamil Braille (Northern Ceylon) also follows this pattern.

8. "Java: On a visit to the only school for the blind in Java in 1940, I was assured that there was a Javanese Braille built on the traditional pattern. Further investigations failed to establish this and nothing is known of it in Holland. My letters in recent years to the only school (Bandung), have remained unanswered and I can only conclude that because of ten troubled years in Java, its work is in abeyance.

9. "Although a number of Indonesian languages are written in Arabic and more recently in Roman script, Javanese script is derived from the Devanageri although it does not retain its order. It has also a Roman script.

10. "Sumatra: An adaptation for the Batta (Toba) language has apparently been in existence for about 50 years, but whether it is still used is not clear. It is in the Oriental system of Messrs. Knowles and Garthwaite and seems to have been a transliteration of an Arabic script (Note 25 October 1950: we are informed from Holland that the Toba Braille now in existence is based on traditional European Braille values, so that apparently the foregoing Oriental Braille is now obsolete).

11. "Malaya: Braille adaptations to Malay (Arabic script), Tamil and Chinese, adopted officially in 1948, were built on the traditional pattern. It might be mentioned that Malay employs Arabic script more especially in the villages, while the inclination in the cities and in more advanced study is increasingly towards the Roman script.

12. "As has been explained in other working documents, the fact that all these adaptations are based on traditional Braille, gives by no means a complete and satisfactory degree of uniformity because in the days when they were framed, traditional values did not go far beyond the common European values of Roman letters. Thus the Braille background of this entire area, together with the Indian decision to accept the principles recommended by the International Meeting on Braille Uniformity, creates a situation eminently favourable to the evolution of a satisfactory uniform system linked with World Braille elsewhere. The scripts, it is true are complicated. The shapes of letters, the sounds associated with them, the sequences of alphabets and the methods of

transliteration have changed radically over the years. The scripts used include Devanageri, Arabic and Roman and perhaps to some extent Chinese. Some of the languages are monosyllabic and other polysllabic; tones are expressed; European languages are encountered; and four of the major linguistic families of the world are concerned, Indo-European Dravidian, Sino-Tibetan and Malayo-Polynesian. Despite this complex background, however, our recent studies suggest it is quite possible for World Braille to accomplish the task. This view is upheld by authorities in phonetics and linguistics who have given us valuable advice."

13. Regard has been had to the various points made in the Report of the Expert Braille Committee, 1943, to Professor Firth's reports and other relevant documents.

14. Early Agreement a Matter of Urgency

See Report to the Conference, MC/Conf. 9/4, paragraph 6.

15. Considerations governing Formation of World Chart

16.

17. See Construction of World Braille Chart, paragraphs 4 and 5, MC/Conf. 9/8.

18. Sound or Letter Relationship

Sometimes choice has to be made as to whether similarity of sound or letter should decide the Braille sign. This might arise, for instance, in the case of the Arabic "WAW" and the Persian "VAV". With little exception, the Brailles of European languages using Roman script have been built on "same letter/same sign", while in the case of European languages using Cyrillic and Greek scripts and non-European languages, the policy in the main has been that of relating signs to the "common European values" of the original Braille. It would probably be unwise, however, in our present task to lay down any hard and fast principle, for the advantages sometimes lie one way and sometimes another. Rigid principles appear to breed more difficulties than they remedy. Probably the best deciding factor in each case would be to give the letter the sign carrying the nearest approximate sound value on the World Braille chart; where, of course, the value varies too widely from that of the established sign, a special sign would need to be improvised.

19. African Tribal Languages

See MC/Conf. 9/6.

20. Order of Syllabaries and Alphabets

The tentative Indian and South East Asian Chart has been arranged in the Devanagari sequence. It should be understood that, as stated in the Report of the Indian Expert Committee, 1943, "teachers in each language would select their own sequence in conformity with modern methods of instruction." This should clear up any such difficulties as were raised by South India in reference to the sequence of Dravidian syllabaries and avoid possible misunderstandings in Burma, Thailand, etc.

21. Historical Position of European Braille

22.

23. See Construction of World Braille Chart, Tables 1, 2, 3 and 4. MC/Conf. 9/8 and Reports to the Conference, paragraph 19, MC/Conf. 9/4.

24. Vowels

Ten vowels have been provided for the World Braille Chart as recommended by linguists and phoneticians as an adequate range to meet the basic needs of most languages. Here and there improvisations are necessary as have been made by Uniform Indian Braille for the additional vowels of the Dravidian languages and Gurmukhi, while of course considerably more improvisation has to be allowed for in Burmese, Siamese, etc.

25. The ten signs cover, as it were, five cardinal vowel values and a second form of each, although some of the latter may also belong to the class of cardinals. Here, as in the I. P. A. alphabet, some licence in their practical application will be found necessary. As has been said, the available Braille signs limit our scope, and in any event too great a range would probably prove clumsy in the end. Indeed, all the sounds employed in a language and its dialects, and even by the same speaker in expressing the same word for different purposes and with different stresses, yield in the end such a variety of vowel sounds that no script can embrace them all.

26. Nine of the signs selected have an historic background in the original Braille and subsequent usage. The tenth had no special function in the original French, but has been used for similar functions elsewhere. These vowels are as follows:

27. Dot 1 (Cardinal A)
Dots 3-4-5 (A as in Southern English FATHER, Parisian French PAS) Braille-Spanish, Danish, and Norwegian AE; German, Swedish, Finnish and Estonian A;

Portuguese A; Sinhalese and Malay A; English AR. For use as a second A vowel where required.

Dots 3-4 (If in a Braille alphabet both a long and a short I are required, this sign should be used for the alternative), Braille - French contraction for AI, Italian, Spanish, Portuguese, Dutch I or I, Czech I.

Dots 2-4 (As I in French SI, German WIE, with value more removed from cardinal in English SEE. Also for I as in BITS) Cardinal I.

Dots 1-3-6 (Cardinal U as in German GUT; English TOO, FULL, GOOD, French TOUT).

Dots 1-2-5-6 (As in German GLUCK) Braille - French, Italian, Spanish, Portuguese, German and Turkish U; Russian YOU; Tamil, Sinhalese and Malay Arabic U and English OU. For use as a second U vowel where required.

Dots 1-5 (As in French THE, English RED, German MEHR. (Cardinal E)

Dots 1-2-3-4-5-6 (As in Northern English PEN, French METTRE, MAITRE, German BETT.) Braille - French, Italian, Portuguese and Dutch E. Some objections are raised to this sign owing to the number of dots it contains. For use as a second E vowel where required.

Dots 1-3-5 (As in English LONG, French PORTE, Cardinal O)

Dots 2-4-6 (As OE in French OEUF) Braille - French and Italian OE; German, Norwegian, Swedish, Finnish and Estonian O; Dutch, Czech, Polish and Hungarian O; Portuguese O; Danish ϕ; Greek OI diphthong; and English OW. For use as a second O vowel where required.

28. Variations of N.

See paragraph 9 Construction of World Braille Chart, MC/Conf. 9/8.

29. Aspirates

See Construction of World Braille Chart, paragraph 8. MC/Conf. 9/8.

31. Readily Movable Signs

Among the signs which could be changed with comparatively little effect upon the views taken in other linguistic areas are:

KH, Dots 4-6
JH, Dots 2-4-5-6
TH, Dots 2-3
ḌH, Dots 2-5-6
BH, Dots 5-6
L, Dots 4-5-6
Ṣ, Dots 2-5
N, Dots 2-3-5
ṚH, Dots 2-3-6
JN, Dots 2-3-5-6
Ġ, Dot 5
Avagrah, Dots 4-5

32. Variations between Uniform Indian Braille and Firth Syllabaries

The Firth Supplementary Report, page 9, states that "Indian Grade 1 Braille will need up to 50 cells." Whether these include such characters as virama and avagraha is not clear. U. I. B., however, includes five characters under "Devanageri" for which Professor Firth appears to make no provision under "Indo-Aryan". They are Z, KH, G, Ġ, and Ri (vocalic).

33. Are these letters with their signs essential to Devanageri or could the signs be left available for other purposes? If the latter, the satisfactory Brailling of some of the more frequently used Devanageri characters might be facilitated.

34. Perso-Arabic

35.

36. See MC/Conf. 9/9.

37. The Inherent Vowel

The argument in favour of the following visual custom in Braille practice (vide page 6 "Problems of the Inherent Vowel", Firth Report, 1948) appears to be essentially sound from the Braille point of view and is also in conformity with the principle that Braille practice should follow the visual script as closely as possible. In view of the desire for the

closest uniformity between the Braille of India and of the Perso-Arabic group, this consideration assumes perhaps greater importance.

38. It seems desirable, of course, that uniformity should be observed in matters of punctuation and of such signs as sukun, virama, shaddeh, etc.

39. Provision for Contractions

The Firth Supplementary Report, "Note on Contracted Braille", makes useful suggestions regarding making present provision for the framing of contractions later on. This appears to be a wise plan.

CLASSIFICATION OF BRAILLE SIGNS ON INDIAN AND SOUTH EAST ASIAN CHART

A. Braille Signs to which history appears to have given traditional values.

U. I. B. Transliteration	Braille Sign	Phonetic Ref:No.	Remarks
A	1	63	
$\bar{A}$	3-4-5	64	
$\bar{I}$	2-4	60	
U	1-3-6	67	
$\bar{U}$	1-2-5-6	79	
$\bar{E}$	1-5	61	
$\bar{O}$	1-3-5	66	
AU	2-4-6	70	
K	1-3	5	
G	1-2-4-5	11	
$\dot{G}$H	1-2-6	52	
$\dot{N}$	3-4-6	28	
CH	1-6	Para 29 (a)	
C	1-4		For Roman letter C in Europe and suggested for CH in Indo-Aryan languages and C as in Ocean in Dravidian languages and Sinhalese.
J	2-4-5	12	
T	2-3-4-5	3	
TH	1-4-5-6	41	
D	1-4-5	4	
DH	2-3-4-6	42	U. I. B.
N	1-3-4-5	7	
P	1-2-3-4	1	
B	1-2	2	
M	1-3-4	6	
Y	1-3-4-5-6		
R	1-2-3-5	13	
L	1-2-3	8	
$\dot{V}$	1-2-3-6	15	
S	1-4-6	46	
$\dot{S}$	2-3-4	14	
H	1-2-5	10	
KS	1-3-4-6		
Z	1-3-5-6	17	
Q	1-2-3-4-5	22	
	34 signs		

I. Signs which have been collectively or individually accepted in discussions with the Perso-Arabic, Sinhalese, Malayan or Tribal African Groups

U. I. B. Transliteration	Braille Sign	Phonetic Ref:No.	Remarks
I	3-4	77	Alternative I vowel sign
ñ	3-5	27	
ṭ	2-3-4-5-6	18	
ḍ	1-2-3-4-6	19	
ṇ	2-6	26	
ḷ	4-5-6	33	
ḥ	1-2-3-5-6	54	
ṛ	1-2-4-5-6	37	
KH	1-5-6	51	
	9 signs		

SPECIAL NOTE

To facilitate consideration, the signs have been classified into 4 groups. If Groups A and B could be given general endorsement, it would leave much more clearly defined areas for the consideration of special signs.

Group C (signs selected from U. I. B.) might also present little debate. These are signs used in the 1949 U. I. B. chart, including A, K and DH.

C. U. I. B. Signs which can conveniently be used in the Chart

U. I. B. Transliteration	Braille Sign	Phonetic Ref:No.	Remarks
A	1	63	
K	1-3	5	
DH	2-3-4-6	42	
Ṣ	2-5		
Ṉ	2-3-5		Except for Urdu where Dots 3-4-6 will represent it and the additional Gurmukhi Ā
Sukun & Virama	4		Subject to Arabic concurrence.
Ġ	5		Devanageri and Gurmukhi. Not for GHEIN in Urdu.
Avagraha	4-5		
	8 signs		

D. Signs suggested to meet the remaining requirements of Indian Braille

U. I. B. Transliteration	Braille Sign	Phonetic Ref:No.	Remarks
AI	1-2-3-4-5-6	62	See vowel para. (NOTE. This is an amendment to No. 62 in Comparative Table of Phonetic Symbols and Tentative World Braille Signs).
KH	4-6		Has been suggested for a second K where required in African languages.
JH	2-4-5-6		
TH	2-3		
DH	2-5-6		
PH	1-2-4		Although phonetically distinct from F, this possibly is the nearest related sign. In Urdu where both PH and F are used, F might be represented by 2-3-5. Bombay uses this sign for PH.
BH	5-6		
Ri vocalic	3-6		Suggested (As in Bombay Braille)
M	1-2-4-6		Ein in Perso-Arabic languages.
E/OY	1-5-6		For OY in Bengali and Oriya and short E in the Dravidian languages. In these latter, the addition of Dot 6 to the usual Braille E maintains the symmetry. Given this second E by U. I. B.
Z	1-3-5-6	17	In addition to the use of this sign for the usual Z value, it is recommended that this sign should supply additional short O for the Dravidian