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drawing: Menno Boulder

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This chapter is mainly based on the paper "Script Transformation Systems" by Päll (2003). See also the "[documents](#)" section.

Structure of this chapter:

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When reading through the following pages, you will come across some unusual terms. These terms are hyperlinked to the UNGEGN [Glossary of Terminology \(pdf\)](#). Behind each term a number (#) is given that corresponds to the numbering applied in this glossary, e.g. [toponymy](#) (#344).

For exercises and documents (and literature) on this topic see respectively the "[Exercises](#)" and/or the "[Documents](#)" section of this module.

The complete module can be downloaded [here](#).

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## INTRODUCTION

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The existence of various writing systems would mean that there have to be standardized ways of representing geographical names originating in languages with other writing systems. It would be technically feasible to standardize names within a group of languages using the same writing system, e.g. those using Roman script. But for names from languages outside the group there are often different methods of representing them in Roman letters. One and the same non-Roman name might be rendered differently, depending on the target language, tradition and purpose of the text. A single Russian place name may serve as a good example of confusion created by various language-oriented renderings:

### What happens with language-oriented conversions?

RUSSIAN	TRANSCRIPTION	LANGUAGE
Шахты	<i>Shakhty</i>	English
Šahty [UN]	Šahtõ	Estonian
ſaxt̪i [phon.]	Šahty	Finnish
	Chakhty	French
	Schachty	German
	Sahti	Hungarian
	Szachty	Polish
	Sjachty	Swedish
	Šahti	Turkish
	etc. etc.	

Although the name contains only five sounds, they have in this table 17 different graphic representations in Roman letters. The phoneme [ʃ] is represented by eight letters or letter combinations (ch, s, š, s, sch, sh, sj, sz), [χ] by three (ch, h, kh) and [i] by four (i, ī, ï, y).

### What happens with method-oriented conversions?

Apart from country-oriented conversion methods, there are also different conversion methods that don't target specific countries, but are based on specific scientific viewpoints or institutional traditions.

For the conversion of Arabic names, for instance, there are systems developed by ISO (233), by UNGEGN, by DIN and others. Wikipedia gives an [overview](#) (see Romanization of Arabic).

Letter	Unicode	Name	UNGEGN	ALA-LC	DIN	ISO	ISO/R	SAS	SM	IPA	BATR	ArabTeX	chat
ء	0621	hamzah	,		ء	ء	ء	ء	ء	ء	ء	ء	ء
أ	0627	'alif	â			â	â	a, ī, u; ă, ă	a:	a	a	a/e/é	
ب	0628	bā'	b						b	b			
ت	062A	tā'	t						t	t			
ث	062B	thā'	th		ث			ث	θ	c	_t	s/th	
ج	062C	ğim	j		ج		ج	j	dʒ/g/ʒ	j	^g	j/g/dj	
ه	062D	hā'	h	ه				ه	h	.h	ه	ه	
خ	062E	ħā'	ħ		خ	خ	خ	x	x/x	K	_ħ	ħ/k/ħ/ħ'	

ء	0628	dāl	d				d	d			
ڙ	0630	qâl	dh	q		ڏ	ڙ	z'	_d	z/dh/th	
ڙ	0631	râ'	r				r	r			
ڙ	0632	zayn/zây	z				z	z			
س	0633	sîn	s				s	s			
ش	0634	shîn	sh		s		ʃ	x	^s	sh/ch	
ص	0635	ṣâd	ṣ	ṣ			ṣ'	S	s	s/ṣ	
ض	0636	dâd	ɖ	d			d'	D	.d	d/ɖ'	
ط	0637	tâ'	t				t'	T	.t	t/ʈ'	
ٻ	0638	zâ'	z	z			ڏ	ڙ/z'	Z	z	z/dh/ʈ'
ع	0639	‘ayn	‘	‘	c		‘	‘	E	‘	‘
ڱ	0640	gâyñ	gh	g	g	g	ঁ	ঁ	g	g	gh/ঁ’
ڻ	0641	fâ'	f				f	f			
ڧ	0642	qâf	q				q	q		2/g/q	
ڪ	0643	kâf	k				k	k			
ڦ	0644	lâm	l				l	l			
ڻ	0645	mîm	m				m	m			
ڻ	0646	nûn	n				n	n			
ڻ	0647	hâ'	h				h	h			
ڙ	0648	wâw	w	w; ū			w; o	w; u:	w or uu	w	w; o; ou/u/oo
ڍ	0649	yâ'	y	y; i̯			y; e	j; i̯	y or ii	y	y; i̯/ee; ei/ai
ڦ	0650	‘alif maddah	ā	ā; ‘ā	‘ā	‘ā	ā; ‘ā	‘aa	‘aa;	‘A	2a/aa
ڦ	0651	tâ' marbûṭah	h, t		t	h; t	t; —	t	a/at	t'	T
ڙ	0652	‘alif maqṣûrah	y	á	ā	ý	á	á	a:	aa	A
ڙ	0653	‘alif lâm	al-		‘al	al-	al-	ál- (var.)	Al-	al-	el/e+double consonant

Source: Wikipedia - Romanization of Arabic

The existence of different methodological systems also would result in different name versions in the Roman alphabet for the same Arab name:

## **What happens with method-oriented conversions?\* - continued)**

<i>ARABIC</i>	<i>UN method</i>	<i>ISO method</i>	<i>etc.</i>
وَهْرَنْ	<i>Wahrān</i>	<i>Wahrān</i>	
غُرْدَايَة	<i>Ghardāyah</i>	<i>ĀGardāyať</i>	
الْجَزَائِير	<i>al-Jazā'ir</i>	<i>'al Gazā'ir</i>	

So, even if these systems are not language-oriented, there still are sizable differences.

\*) Differences between the UN-system and the ISO system

The transliteration ISO 233:1984 gives every character and diacritic sign a unique equivalent and e.g. long vowels in Arabic *ā*, *ī* and *ū* are consequently written *a'*, *iy* and *uw* respectively in the ISO transliteration. Other main correspondences:

UN	ISO				
ā ( ī )	â	gh	= ġ	kh	= h
á	ay	h ( ȝ )	= t	ȝ	= ȝ
a <sup>n</sup>	á	h	= h	sh	= ȝ
đ	đ	i <sup>n</sup>	= i	t	= t
dh	d	j	= y	th	= t

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## 1. A SOLUTION

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**For each name written in a non-roman alphabet there should be only one internationally accepted way of writing in roman letters.**

A solution that has been offered and is advocated by the United Nations is contained in the resolution of the first United Nations Conference on the Standardization of Geographical Names (1967, res. 9): one of the aims of international Standardization is

*"to arrive at an agreement on a single romanization system, based on scientific principles, from each non-Roman alphabet or script, for international application".*

This is known as the **single romanization principle**. In other words, for each name written in a non-Roman alphabet there should be only one internationally accepted way of writing in Roman letters. In the case of the Russian example above, this accepted spelling would be Šahty, according to a recommendation\* adopted in 1987. In the case of the Arab example above, the UN prefers the system it approved itself, that is the amended Beirut system\*\*.

### **\*) Resolution V/18 Romanization of the Russian alphabet for geographical names**

The conference, noting that the Union of Soviet Socialist Republics has officially adopted a systemm for romanizing geographical names of that country written in the Russian Cyrillic alphabet, noting also that this system has been applied on maps produced in the Soviet Union for international use, recommends that the GOST 1983 system of the Main Adnministration of Geodesy and Cartography, set out in the annex to the

present resolution, be adopted as the international system for the romanization of geographical names in the Cyrillic alphabet.

R.C.	R.	E x a m p l e s	R.C.	R.	E x a m p l e s		
а	а	Анапа	Anapa	с	с	Сасово	Sasovo
б	б	Бабушкин	Babuškin	т	т	Татта	Tatta
в	в	Вавилово	Vavilovo	у	у	Уржум	Uržum
г	г	Гагарин	Gagarin	ф	ф	Фофаново	Fofanovo
д	д	Дудинка	Dudinka	х	х	Хохлома	Hohloma
е	е	Елисеевка	Eliseevka	ц	с	Цветково	Cvetkovo
ё	ё	Ёлкино	Ёlkino	ч	č	Чечельник	Čečel'nik
		Псёл	Pſel	ш	š	Шишкино	Šiškino
ж	ž	Жужа	Žuža	щ	šč	Щукино	Ščukino
з	z	Звёздный	Zvězdnyj	ъ	"	Подъячево	Pod"jačevo
и	i	Идрица	Idrica	ы	y	Ыныкчанский	Ynykčanskij
й	j	Зарайск	Zarajsk	ь	'	Параньга	Paran'ga
к	k	Коканд	Kokand			Казань	Kazan'
л	l	Лалвар	Lalvar			Щучье	Ščuč'e
м	m	Маймак	Majmak	э	ě	Элиста	Èlista
н	n	Нежин	Nežin	ю	ju	Юрино	Jurino
о	o	Ободовка	Obodovka			Юхнов	Juhnov
п	p	Пап	Pap			Юрюзань	Jurjuzan'
р	r	Ребриха	Rebriha	я	ja	Ямал	Jamal
						Язъянан	Jaz"javan
						Яя	Jaja
						Вязьма	Vjaz'ma

UNGEGN-accepted official GOST 1983 conversion system Cyrillic-Roman alphabet

\*\*) The Conference,

Considering resolutions 11 and 12 of the First United Nations Conference on the Standardization of Geographical Names,

Noting the system adopted by the Arabic experts at the conference held at Beirut in 1971, which is reproduced in the annex to document E/CONF.61/L.77,<sup>25)</sup>

Further noting the practical amendments carried out and agreed upon by the representatives of the Arabic-speaking countries at their conference,

Recommends the adoption of the amended Beirut system, as shown in the annex to E/CONF.61/L.77, for the romanization of the geographical names within those Arabic-speaking countries where this system is officially acknowledged.

## Conversion of Arab consonants into the Roman alphabet according to the Amended Beirut system

۱	۲	۳	۴	۵	۱	۲	۳	۴	۵	۱	۲	۳	۴	۵
ء			,	(۱)	ر	ر	ر	ر	ف	ف	ف	ف	ف	f
ا	ل	-۲			ز	ز	ز	z	ق	ق	ق	ق	q	q
ب	ب	ب	ب	b	س	س	س	s	ك	ك	ك	ك	k	k
ت	ت	ت	ت	t	ش	ش	ش	sh	ل	ل	ل	ل	l	l
ث	ث	ث	ث	th	ص	ص	ص	§	م	م	م	م	m	m
ج	ج	ج	ج	j	ض	ض	ض	d	ن	ن	ن	ن	n	n
ح	ح	ح	ح	h	ط	ط	ط	t	ه	ه	ه	ه	h	h
خ	خ	خ	خ	kh	ظ	ظ	ظ	z	و	و	و	و	w	w
د	د	د	د	d	ع	ع	ع	'	ي	ي	ي	ي	y	y
ذ	ذ	ذ	ذ	dh	غ	غ	غ	gh						

Conversion of vowels according to the Amended Beirut system (see below)

Vowels, diphthongs and diacritical marks (• stands for any consonant)

•	a	•	( <sup>1</sup> )	•	á
و•	aw	و	( <sup>1</sup> •) á	•	a <sup>n</sup>
ي•	ay	ي	á	•	i <sup>n</sup>
•	i	ي	í	•	u <sup>n</sup>
•	u	و	ú	•	( <sup>2</sup> )

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## 2. TERMINOLOGY

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Whatever conversion system is chosen for the official UN-backed conversion, there still would be different options to choose from. These options are described in the terminology given here. The various definitions have been taken from [Kadmon \(2000\)](#).

In the following pages we will discuss:

- a. [Conversion](#)
- b. [Transcription](#)
- c. [Transliteration](#)
- d. [Transliteration key](#)

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## 2. TERMINOLOGY- A) CONVERSION

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**Conversion** is a general term denoting all changes that happen when phonological and/or morphological elements of a particular language are transferred to another language. Particularly this concerns transformations from one script into another. Names may be converted from Roman script into Arabic, from Thai into Russian, etc. Speaking of the direction of the conversion, there is the **source script** (also called donor script) - in terms of which a name is originally produced; the other is the **target script** (or receiver script) - into which a name is converted. **Romanization** is a conversion from non-Roman into Roman script, e.g.:

Greek Αθήνα → Athina  
Russian Москва → Moskva  
Arabic بیروت → Bayrūt  
Hebrew תל-אביב → Tel-Aviv.

Conversion is effected by either transcription or transliteration.

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# INFORMATION

## 2. TERMINOLOGY



Although it is often thought that transcription is not used for conversions between Roman-script languages, there are some exceptions. Many of the geographical names that are nowadays viewed as exonyms have in fact been formed using the transcription method. Examples:

Spanish Zaragoza → English and German Saragossa,  
Italian Toscana → German Toskana,  
Romanian Bucovina → Polish Bukowina,  
French Bruxelles/Dutch Brussel → Hungarian Brüsszel,  
German Hamburg → French Hambourg.

There are also some languages where out of tradition and/or morphological considerations all names are transcribed. For example, in Latvian all nouns should have an ending in the nominative case, otherwise it would be difficult to decline the nouns. This has led to using Latvian orthography throughout the names, e.g.

German Stuttgart → Štutgarte (note the feminine ending -e),  
French Tours → Tura,  
English Newcastle → Nukasla.

## 2. TERMINOLOGY- B) TRANSCRIPTION

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Transcription is a method of phonetic names conversion between different languages, in which the sounds of a source language are recorded in terms of a specific target language and its particular script, normally without recourse to additional signs called diacritics. Examples:

Turkish Ankara → Greek Αγκαρά,  
Russian Щукино → English Shchukino.

Although transcription aims at giving the user a "pronounceable" name spelling, it is often only an approximation of the original pronunciation. This is because the sound structure of languages is different, and the sounds of a source language cannot always be recorded in the orthography of a target language. For example, an English speaker would not know how to pronounce certain Arabic sounds, like

ح, ع, ص, ط

that do not have counterparts in English.

This makes transcription linguistically imprecise and dependent on the orthography of a target language. Transcription is not normally a reversible process. If attempting to restore the source spellings of the examples given to the definition, the results could be different:

Greek Αγκαρά → Turkish "Ağkara",  
English Shchukino → Russian "Щукино".

For more information on transcription click

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## 2. TERMINOLOGY- C) TRANSLITERATION

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**Transliteration** is a names conversion method between different alphabetic and/or syllabic scripts, in which each character (or character combination) is represented in the target script by one character (or character combination). Examples:

Russian Челябинск → Čeljabinsk,

Amharic ቴግራይ → Tigray.

Transliteration, as distinct from transcription, aims at (but does not necessarily achieve) complete reversibility. Reversibility here means a characteristic which permits a written item to be converted from one script into another, and subsequently reconverted back into the source script, the result being identical with the original.

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## 2. TERMINOLOGY- D) TRANSLITERATION KEY

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Transliteration key (also called conversion table) lists the characters of a particular source script together with the corresponding characters of a specific target script. In order to distinguish characters of the source script, ample use is made of all the character inventory of the target script, including, if necessary, diacritics (diacritical marks). These are small signs, placed above, below or across a letter or group of letters.

For example,

For example, Greek characters  $\iota$  and  $\eta$  that are pronounced both [i] may be distinguished by adding a sub-macron to one of them:  $\iota \rightarrow i$ ,  $\eta \rightarrow \bar{\eta}$ . Similarly distinction is made between Arabic  $\aleph \rightarrow h$ , and  $\zeta \rightarrow \bar{h}$ .

To compare transcription and transliteration methods, a page from Back (1997), is given here:

	<i>Transliteration</i>	<i>Transcription</i>
Representing -	characters or syllabograms	sounds or phonemes
Information on	original spelling	original pronunciation
Conversion rules are	relatively easy	relatively complicated
Reproducing names and their pronunciation is -	often relatively complicated	relatively easy
Domains are -	scientific documentation	journalism, literature
Sources are -	philological works, library rules, ISO	orthographic dictionaries, pronunciation guides

Another comparison between methods can be made on the basis of this German example (see image below):

burmanisch = Burmese  
 schriftgetreu = correctly transliterated  
 lautgetreu = phonetically correct  
 englisch = transcribed to be correctly pronounced in English  
 deutsch = to be correctly pronounced in German  
 chinesisch = Chinese  
 amtlich = officially used conversion  
 postalisch = conversion in use by postal authorities



lautgetreu **Rangôn**

englisch **Rangoon**

deutsch **Rangun**

chinesisch 重庆

amtlich **Chongqing**

postalisch **Chungking**

englisch **Ch'ungch'ing**

deutsch **Tschungking**

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## 3. UN-APPROVED SYSTEMS

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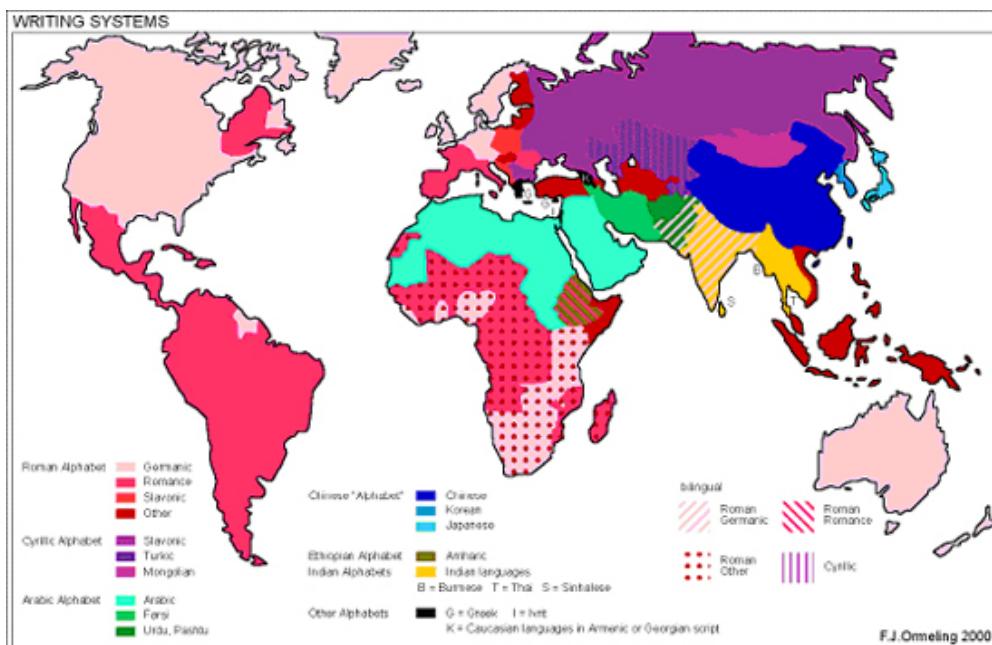
In contrast to ISO systems the ones recommended by the United Nations favour practical aspects and prefer systems that yield "pronounceable" names. As a comparison here are some names converted using a United Nations-recommended system and ISO transliteration:

	ORIGINAL	UN SYSTEM	ISO
Arabic	طَرَابُلُسْ	Ṭarābulus	ṭara'bulus
Bulgarian	Търново	Tărnovo	T'rnowo
Greek	Ναύπλιο	Náfplio	Naúplio
Hebrew	תֶּל־אָבִיב	Tel-Aviv	tel-'âbiy̑b
Russian	Щелья́ю́р	Ščel'jajur	Šel'aûr
Thai	ประทุมธานี	Prathet Thai	praethsīthy

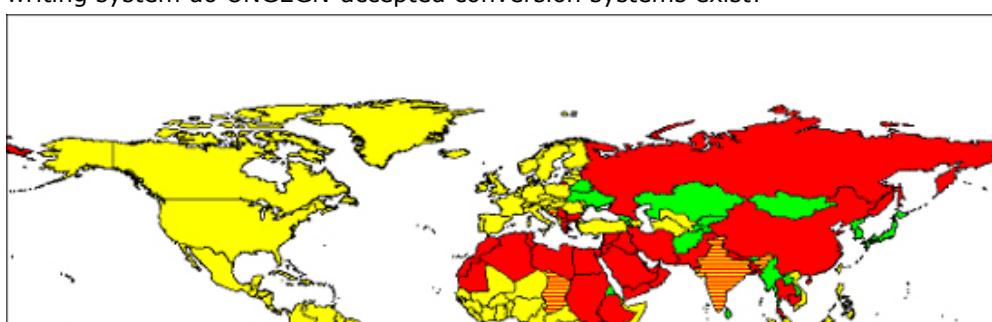
- ISO systems aim at representation of the exact original spelling
- UN systems are practical systems that aim at pronounceable names

UN-accepted single romanization systems exist for Amharic, Arabic, Bengali, Bulgarian, Chinese, Greek, Gujarati, Hebrew, Hindi, Kannada, Khmer, Macedonian, Malayalam, Marathi, Mongolian, Nepali, Oriya, Persian, Punjabi, Russian, Serbian, Tamil, Telugu, Thai, Tibetan, Uigur and Urdu (see UNGEGN [romanization website](#) ).

In principle, Romanization is only necessary for non-Roman writing systems. Their distribution can be seen here:



The pink and red colours denote Roman alphabet. For which languages with a non-Roman writing system do UNGEGN-accepted conversion systems exist?





Source: Päll, Tainach 2010

Yellow: Roman alphabet area; Red: languages with officially, UNGEGN endorsed conversion systems to the Roman alphabet; Green: language areas without officially, UNGEGN-endorsed conversion systems to the Roman alphabet. Striped areas: both colours apply.

Not all countries where UNGEGN-endorsed systems apply have also converted their toponyms according to this system. In the map below this is shown (situation 2010). National implementation of the system now is a requirement in order to be recognized and accepted as an UNGEGN-endorsed system. This means, it not only has to be used in maps, but also on roads signs, in official information, etc. The more widely the system is used, the better. It has been stated that new romanization systems for international use are considered only on condition that the sponsoring nations implement such systems on their cartographic products (maps and charts)(Res. IV/15).\*

#### The Conference,

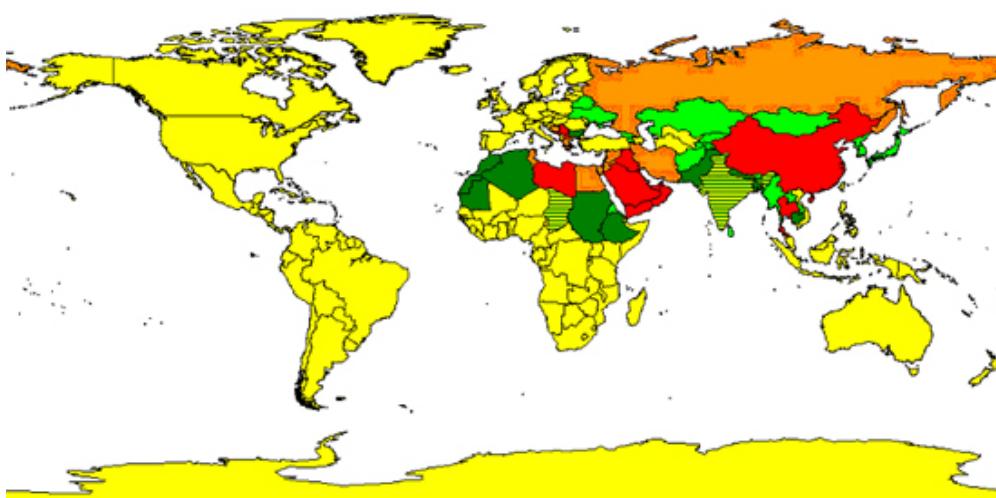
Recognizing the need to ensure maximum stability of romanization systems,

Noting that guidelines governing the consideration of romanization systems are desirable,

Further noting the principle that international standardization should be based on national standardization,

1. Recommends that new romanization systems for international use should be considered only on condition that the sponsoring nations implement such systems on their cartographic products (maps and charts);

2. Further recommends that States should refrain from revising systems previously adopted for international use.



source: Päll, Tainach 2010

In the red countries the officially UNGEGN-endorsed romanization systems have been implemented. In orange-coloured countries these systems have been implemented only partly.

In dark green areas the officially UNGEGN-endorsed romanization systems have not been implemented; in light green areas no UNGEGN-endorsed romanization systems exist.

Other languages/scripts that still have to be provided with an UNGEGN-endorsed romanization system are: Armenian, Burmese, Byelorussian, Dzongkha, Georgian, Japanese, Kazakh, Kirghiz, Korean, Lao, Maldivian, Mongolian (Cyrillic), Pashto, Sinhalese, Tajik, Tigrinya, Ukrainian.

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## 4. TYPOLOGY OF CONVERSION TYPES AND EXAMPLES

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## Type A. Non-Roman to Roman conversions

## A1. UN-approved romanization systems

A1a: Nationally and internationally implemented rom.systems

HEBREW	NATIONAL/UN
ראשׁוֹן־לֵצִיּוֹן	Rishon-Leziyyon
רָמַלָּה	Ramla
אַשְׁקְלוֹן	Ashqelon

Alb: Nationally implemented romanization systems

BULGARIAN	NATIONAL/UN	BGN/PCGN
Хасково	Haskovo	Khaskovo
Ловеч	Loveč	Lovech
Велика Търново	Velika Tărnovo	Velika Tŭrnovo

Al c: Not implemented

MALAYALAM	ENGLISH
കൊച്ചിക്കോട് Kolikkot	Calicut, Kozhikode
കൊച്ചി Kochchi	Cochin
തിരുവനന്തപുരം Tiruvananthapuram	Trivandrum, Thiruvananthapuram

## A2. No UN-approved romanization systems

A2a: National systems + systems in other countries

BYELORUSSIAN	NATIONAL	ENGLISH	ESTONIAN
Марілेह	Mahilioú	Mahilyow	Magiljov
Віцебск	Viciebsk	Vitsyebsk	Vitsebsk
Рэчыца	Rečyca	Rechytsa	Retšotsa

LAOTIAN	NATIONAL + INTERNATIONAL
ຈຳປາສັກ	Champasak (ex-Champassak)
ສວັນນະເຂດ	Savannakhét
ໄຊ້ບະບຸລີ	Xaignabouli (ex-Sayaboury)

A2b: National system, no international use

DZONGKHA	NATIONAL	CONVENTIONAL
རྒྱମྚ୍ଯା	B'umtha	Bumthang
ଶେଂଗା	Zh'amgang	Shemgang

A2c: No national system, various systems in other countries

ARMENIAN	ENGLISH (BGN/PCGN)	ESTONIAN

Երևան	Yerevan	Jerevan
Չարենցավան	Ch'arents'avan	Tšarentshavan
Վայոց Ձոր	Vayots' Dzor	Vajotsh Dzor
<b>KAZAKH</b>	<b>ENGLISH (BGN/PCGN)</b>	<b>ESTONIAN</b>
Костанай	Qostanay	Kostanaj
Мангистау	Mangghystaū	Manggõstau
Сарыарқа	Saryarqa	Sarõarka

A2d: No national or known international systems

<b>SINHALESE</b>	<b>TAMIL</b>	<b>ENGLISH</b>
කොළඹ 'Kōlamba	கொழும்பு Kōlumpru	Colombo
යාපනය Yāpanaya	யாழ்ப்பாணம் Yāppānam	Jaffna
මහනුවර 'Mahanuvara		Kandy

#### Type B. Roman to Roman conversion

<b>ESTONIAN</b>	<b>LATVIAN</b>
Aardla	Ardla
Väana	Vēna
Püssi	Pissi

#### Type C. Roman to non-Roman conversions

<b>ESTONIAN</b>	<b>RUSSIAN</b>
Aardla	Аардла
Väana	Вяэна ("Vjaēna")
Püssi	Пюсси ("Pjussi")

#### Type D. Non-Roman to non-Roman conversions

<b>UKRAINIAN</b>	<b>RUSSIAN</b>
Хмельницький (Khmeľnyts'kyi)	Хмельницкий (Hmel'nitskij)
Суми (Sumy)	Сумы (Sumy)
Мелітополь (Melitopol')	Мелитополь (Melitopol')

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## EXERCISE 1: FROM GREEK TO THE ROMAN ALPHABET

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Convert these Greek geographical names from the Greek alphabet into the Roman alphabet according to the UN-endorsed ELOT system (to be found at: <http://www.eki.ee/wgrs/>)

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## Greek names

Αιτωλία-Ακαρνανία	Κορινθία	.....
.....	Κυκλαδες	.....
Αργολίς	Λακωνία	.....
Αρκαδία	Λάρισα	.....
Άρτα	Λασίθιον	.....
Αττική	Λέσβος	.....
Αχαΐα	Λευκάς	.....
Βοιωτία	Μαγνησία	.....
Γρεβενά	Μεσσηνία	.....
Δράμα	Ξάνθη	.....
Δωδεκάνησος	Πέλλα	.....
Έβρος	Πιερία	.....
Εύβοια	Πρέβεζα	.....
Ευρυτανία	Ρέθυμνον	.....
Ζάκυνθος	Ροδόπη	.....
Ηλεία	Σάμος	.....
Ημαθία	Σέρραι	.....
Ηράκλειο	Τρίκαλα	.....
Θεσπρωτία	Φθιώτις	.....
Θεσσαλονίκη	Φλώρινα	.....
Ιωάννινα	Φωκίς	.....
Καβάλα	Χαλκιδική	.....
Καρδίτσα	Χανιά	.....
Καστοριά	Χίος	.....
Κέρκυρα		
Κεφαλληνία		
Κιλκίς		
Κοζάνη		





Street Name sign  
in Roman script  
(Bahasa Indonesia)  
and Javanese script,  
in Surakarta, Indonesia

**Answers**

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**EXERCISE 1: WHERE IS ...? - ANSWERS**[<back to exercise 1](#)

Alankomaat = Finnish name for the Netherlands;

Leghorn = English name for Livorno;

Cornovaglia = Italian name for Cornwall;

Trèves = French name for Trier

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## EXERCISE 2: FROM KHMER TO THE ROMAN ALPHABET

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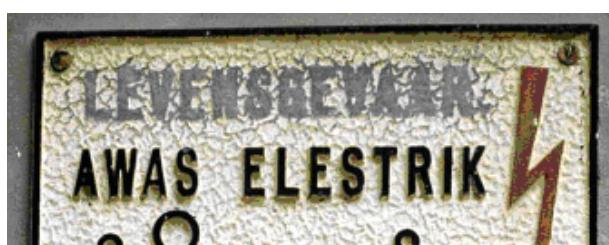


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## Khmer names

បាត់ដីបន្ទុ	.....
កំពង់ចាម	.....
កំពង់ស្ព័ន្ធ	.....
កំពង់សីរី	.....
កំពង់ធំ	.....
កំពត	.....
កណ្តាល	.....
កោះកុង	.....
ក្រចេះ	.....
មណ្ឌលគិតិ	.....
ឧត្តមាសជ័យ	.....
ពោធិ៍សាត់	.....
ព្រះវិហារ	.....
ព្រៃនដែង	.....
រតនគិតិ	.....
សៀវភៅ	.....
សិន្ទ័ត្នកែង	.....
ស្វាយរៀង	.....
តាក់ក់	.....

Be ware this is a very complex exercise!





### **Warning**

Do not touch electric cables in  
Dutch, Bahasa Indonesia and Javanese  
(at the Kraton in Yogyakarta, Indonesia).

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## DOCUMENTS AND LITERATURE

Available documents:

- [D11-01](#): Päll, P. (2003). *Script Transformation Systems*. In J. Sievers and F.J. Ormeling (eds.) (2003) - Training course on Toponymy. Frankfurt am Main, Verlag des Bundesamtes für Kartographie und Geodäsie), pp. 131-137.

Literature:

- Kadmon, N. (2000). *Toponymy. The Lore, Laws and Language of Geographical Names*. Vantage Press, New York.
- Back, O. (1997). *Fragen der Wiedergabe fremdsprachlicher geographischer Namen durch Exonyme oder durch Umschriftung*. In: Kartographie und Namenstandardisierung. Wiener Schriften zur Geographie und Kartographie. Band 10. Institut für Geographie der Universität Wien, Ordinariat für Geographie und Kartographie, 1997, pp. 55-63.

Online resources:

- UNGEGN - [Working Group on Romanization systems](#)
- US Board on [geographical Names Romanization systems](#)

The United Nations sell the following publications which also can be downloaded from the [UNGEGN](#) website:

- [Glossary of Terms for the Standardization of Geographical Names](#) (New York 2002) / [pdf](#)
- [Manual for the national standardization of geographical names](#) (UN - Ecosoc, New York, 2006 ST/ESA/STAT/SER.M/88 Sales No. E.06.XVII.7 ISBN 92-1-161490-2, available in the 6 UN languages) / [pdf](#)
- [Technical reference manual](#) for the standardization of geographical names (New York, 2007) / [pdf](#)
- [Resolutions](#) adopted at the nine UN Conferences on the standardization of geographical names ([English \(pdf\)](#) / [French \(pdf\)](#))