Universal Multiple-Octet Coded Character Set International Organization for Standardization Organisation Internationale de Normalisation Международная организация по стандартизации

Doc Type:Working Group DocumentTitle:Preliminary proposal for encoding the Garay script in the SMP of the UCSSource:UC Berkeley Script Encoding Initiative (Universal Scripts Project)Author:Michael EversonStatus:Liaison ContributionAction:For consideration by JTC1/SC2/WG2 and UTCDate:2012-04-26Replaces:N4044 (L2/11-181)

N4044 was an exploratory proposal by Anshuman Pandey.

**1. Introduction.** The Garay script was created by Assane Faye and published in January 1961. The script shows influences of the Arabic writing system and is written linearly from right-to-left. The basic repertoire consists of 25 consonant letters (including a "vowel-carrier" letter), a number of basic vowel signs, a vowel-length mark, a zero-vowel mark, a gemination sign, and 10 digits. Additional research is required to determine the current scope of use of the script. The official script in Senegal for Wolof is Latin, although the Wolofal script (an Arabic-based script written in the 'Ajami' style) is also used. The user community for Garay is small at present, some 200 people, including women's groups and adult literacy for Mandinka as well as for Wolof. The script has been taught informally for more than fifty years since its invention. Faye designed Garay to be easy to learn, familiar to anyone who had learned some of the Arabic script, but gave it a more simple design. Among the manuscripts Faye has written out include textbooks, folktales, and maps; there exists also a Qur'ān with interlinear text giving the translation into Wolof using Garay script.

**2.1. Consonants.** A peculiarity of the consonants is the "tail" which, in handwriting, often swings back under a letter when in final position in a word, as in 2 as in 2. This feature of handwriting is rather common. Unfortunately, as there is no tradition of either metal or digital type in Garay, it is difficult to know whether this might be required in type or not. (It does not appear in most of the examples, such as Figures 4 through 15). The representation of this feature would be best achieved via an OpenType feature to letters followed by a space or full stop.

Related to this is a style of writing in which the tail of the final consonant turns back to underline the entire word  $\frac{1}{\sqrt{n}}$ . The examples here were generated using custom-underlining in typesetting software. (See Figures 3 and 17.)

**2.2 Vowels.** The script uses five basic vowel signs, one of which is combining, to represent 10 distinct vowels. Six of these vowels are written with a combination of two or more basic vowel signs. Vowels have initial and non-initial forms. Initial forms of vowels are written using the letter A as a "vowel-carrier" letter and one or more vowel signs. Non-initial vowels are written using only vowel signs. The spelling of some vowels differs depending on the consonant letter they precede. The vowel SIGN E is a combining mark, but a class of "modified consonants" which are modified by a diacritical mark do not take that sign, but are rather followed by the vowel carrier with the vowel SIGN E atop it. The letters concerned are  $i_{\Delta}$  be,  $i_{\Delta}$  mbe;  $i_{\alpha}$  je,  $i_{\alpha}$  nje;  $i_{\beta}$  ge,  $i_{\beta}$  nge,  $i_{\beta}$  nge,  $i_{\alpha}$  nde. This is evidently to avoid confusing the vowel sign with the diacritical mark, since  $*_{\Delta}$  be would look like  $\Delta mb$  and  $*_{\Delta}$  de would look like  $\Delta nd$ .

It could be said that the vowels look similar to some other characters in the standard:

VOWEL LETTER A looks something like / SOLIDUS
VOWEL LETTER I looks something like \ REVERSE SOLIDUS
VOWEL LETTER O looks something like > RAISED COMMA
SUKUN looks something like < MODIFIER LETTER CENTRED LEFT-HALF RING</li>
VOWEL LENGTH MARK looks something like \_ LOW LINE
VOWEL SIGN E looks something like 
COMBINING COMMA ABOVE
GEMINATION MARK looks something like 
COMBINING CIRCUMFLEX ACCENT.

All of these resemblances are superficial; it is simpler to encode the lot as script-specific characters than to try to unify some or all of them with existing characters in the standard.

The order of the vowels is as given in the charts reproduced in Figures 3–15 below.

Sign	Dalby	Faye	?a	с	m	k	b	mb	j	nj
/	a	a	15	12	/	<i>/</i> Ш_	/^	/^/_	18	νà
~	i	i	~5	\ <u> </u>	$\mathbf{N}$	NUL	\^	<u>\</u>	<i>\</i> 8	×à
,	э	0	•\$	,	<b>'</b> ^	<u>9111</u>	•^	<u>،</u>	<b>9</b> 8	<b>,</b> à
с	Ø		cS	പ	c٨٨	сш	c^	<u>د</u> م،	cØ	cŻ
_/	ā	a(:)	_/\$	_/~	_/^	_/\	_/^_	_/^,	_ <b>/</b> 8	_/à
_`	ī	i(:)	_\\	_\~	_`^	\	_\^_	_\^\_	_\8	_\à
_,	Э	0(:)	_,	_,	_'^	_ <b>?</b> Ш_	_'^_	_ <b>^,</b> ^,	_ <b>,</b> 8	_,à
ి	3	é	Ś	2	$\sim$	<u>ц</u> ?	\$ <u>~</u>	5~-	ไล	ŝà
_2	3	é(:)	_`		_~	?	_5^_	_\$^>_	_3a	_\$à
15	ə	e	155	1/-	SM	<u>Кш</u>	15~	15~	শে	∕Sà
5	ü	u	<b>\</b> \$\$	$\sqrt{-}$	~Sm	$\sqrt{m}$	<u>\</u>	<u> </u>	<b>\</b> ধ	<i>s</i> à
•5	u	ou	,\$\$	<u>بر</u>	<b>%</b> ~	<u> %ш</u>	<u>،</u> ۲۷	· <u>//</u>	গগ্ৰ	sà
ک			css	ഗ്_	csw	லியட	c٢٧~	clai	ଧ୍ୟ	ડવે
_/\	ā	e(:)	_/\$\$	_//_	_XM	<u>_Nu</u> _	_15_	_1\ <u>~</u>	_ <i>\</i> \8	_/Sà
_\{	ü	u(:)	_\{{	_\/_	_\ <u>`</u> M	_\Su_	_\\^_	_\\^	_\\$a	_\\a≀
_%	ū	ou(:)	_,55	_%	_,^^	_ <del>\$</del> 111_	_,5^_	_,5^,-	_ <b>\</b> 8	_ <b>s</b> à
ং	e	é	ss	<u>\</u>	5~~	Su!	55~	55~	เรื่อ	ssà
_{\$	ē	ế	_\$\$	_\_	_5~		_\$\$^_		_ร์เล	_śł
Sign	Dalby	Faye	S	W	1	g	ŋg	ŋ	d	nd
/	a	а	<b>/</b>	<i>\</i> ?	<i>1</i> N	<b>~</b> H	Ĥ	νĤ	12	这
`	i	i	NII	<u>\</u> ?	$\mathbb{N}$	NН	Ń	١Ĥ	\L	这
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_	Ø		cll	c۶	cN	сH	cĤ	сĤ	- 7	这	
c	ā	a(:)	_/II	_^?	_/N	_/H	_,H	_,H	见。 见\_	_/\$	
_/ _\	а 1	i(:)	_^//	^9	_^// _\//	\//	, \H	 \H	_\& _\&	_\\$	
_`_,	л Э	o(:)	_>// _//	_`` _,?	_^// _//	,H	,Ĥ	,Ĥ	_\L	_\\$ _\\$	
` ১	3 3	6(.) é	,	ېې	_//v ∛	ŝH	ŝĤ	, \$Ĥ	js js	_,se ;se	
_`_`	3 3	é(:)	_!!	_}	_N _N	_\$H	_\$H	_\$Ĥ	_\_	_12	
	с ə	e(.)	_'' //!	; ~{?	_/\ /\/	_,,,, _//	/ /SĤ	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_).se //se	小豆	
5	ü	u	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\ <u>\</u> ?	SN.	~\$H	\SH	,√.,, ,√.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	্যন্থ প্র	心定	
,5	u	ou	s///	,58	\$N •\$N	•\$H	sĤ	۶, ۱	いと	《这	
చ	u	ou	sii	درج	SN	ъSH	٥Ĥ	٥Ĥ	নত	心定	
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_^/	ū	u(:)	///	_\/?	_\\N	\\$H	\/ _\\H	\H	_/\&	_\\&	
	ū	ou(:)		_,59		, ,\$H		, ,	_\\& _\\&	_\\& _\\&	
<u>رہ</u> در	e	é	_///; ///	۰ مر	_,,,, \$ <i>i</i> }	sšH	sšĤ	 SŠĤ	siz	业	
_%	ē	ő ő	_\$11	_\?	_5&	_SSH	_ssH	_\$\$ <b>H</b>	_112		
_/>	U	C	_///	_//	_//v				_//@		
Sign	Dalby	Faye	х	h	у	t	r	ny	f	n	р
/	а	а	<u>/\</u>	4,	1	/_^	15	/∞	ارحی	س_/	لو ا
~	i	i	10	طہ\	$\sim$	\_ <u>^</u>	$\mathbf{\hat{v}}$	\∞	/بص	س_۱	بو ۲
,	Э	0	<u>ب</u>	4,	•∕∿	,	°~	∞	, رحر	دىد_ر	رو د
с	Ø		درک	طہ c	c∕∿	c_AA	°(	ŝ	دىھى	دىر_c	رو ،
_/	ā	a(:)	_/به	<i></i> /_	_//J	_/_^	-15	_/∝	_/بح	س_/_	لو ا_
_`	ī	i(:)	<u>_\c</u>	<u>م_`_</u>	_\/~	_\_	-`\	_\∝	<u>_\æ</u>	س_\	<i>لو</i> \_
_,	Э	0(:)	_,~	<b>_,</b> _	_,∿	_'_^	-'~	_,∞	_, _	<u></u> ى	رو و_
ి	3	é	Ľ,	لخہ	べ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ż	~	مح	_ <b></b> ,	لفو
_2	3	é(:)		<u> </u>	_~~		-~	_~	_ىح		لھ_
15	ə	e	50	א_א	Nr.	15.00	No	Noc	المرص	ىد_كە	موکا
~5	ü	u	5	<u>مے ک</u>	5	<u>\</u>	55	vie	رارحی	س_ک	موک
,5	u	ou	<u>م</u> رو	<u>م</u> _۷					المرحى		موک
دم			5	طہ کہ	∿?⊳	<u>مم </u> {ی	der	cloc	دارح	س_ک	موک
_/\$									_ہ ج		
_v	ü								_رزمح		
_%	ū								_ارمن		
প্ট	e	é	52	لمعرك	52	5_22	5%	soc	الم	يندر	لفحدك
_{\$	ē	ế	_\~	_\k	_5~	_\_^	-5%	_\~	_ارح	یں_ک_	توک_

2.2.1. Vowel length. A long vowel is indicated by writing a vowel-length mark (\_) after a basic vowel.

**2.2.2. Sukun.** An explicit symbol (c) indicates that a consonant has no following vowel. Evidently this is an optional letter (somewhat like Cyrillic  $\overline{v}$  in pre-1918 Russian); the word for 'lamb' or 'sheep' is written  $c_{cr} \subset Xar^{\circ}$  in one of Faye's books, and  $c_{r} \subset Xar$  in another.

**2.2.3. Gemination.** The gemination mark ( $\hat{\circ}$ ) is written above a consonant letter and above the VOWEL SIGN E ( $\hat{\circ}$ ).

**2.2.4. Reduplication.** The reduplication mark (**x**) is written after a word and indicates that it is repeated. (see Figure 10).

**3. Digits.** The digits represent decimal numbers and are written from left-to-right. Some of the consonant letters also have numeric values as shown below.

Transl.	Letter	Garay digit	Digit	Transl.	Letter	Garay digit	Digit
а	\$	I	1	g	Н	10	10
С	Ч	Į	2	d	叉	10	20
т	$\sim$	4	3	x	Ъ	40	30
k	ш_	ź	4	у	$\sim$	έO	40
b	^	Ŷ	5	t		9 O	50
j	<i>រ</i>	φ	6	r	$\boldsymbol{\varsigma}$	<b>Ψ</b> Ο	60
S	11	ß	7	ñ	~	۹O	70
w	የ	$\checkmark$	8	f	بص	ЧO	80
l	N	β	9	n	دىپ_	٩O	90
				р	بو	100	100

**4. Character names.** The names of the consonants end in -A, and the vowels are named with the usual UCS conventions, with E representing  $\varepsilon$ , EE representing e, O representing  $\sigma$ , OO representing  $\sigma$ , AE representing  $\sigma$ , OE representing  $\ddot{\sigma}$ , UE representing  $\ddot{u}$ , and NG representing  $\eta$ .

**5. Ordering.** Since the characters have a numeric value, the ordering is based upon this, with modified letters  $(mb, nj, \eta g, \eta, nd, h)$  interfiled after their bases, at a first-level distinction from them.

									<<										
ĸ	<<	<u>^'</u>	<	ඩ	<<	Ø	<	ඩ	<<	à	<	Ð	<<	//	<	છે	<<	የ	<
N	<<	N	<	$\varphi$	<<	Н	<	Ŵ	<<	Ĥ	<	ŵ	<<	Ĥ	<	G	<<	叉	<
Œ	<<	孓	<	G	<<	Ъ	<	Ð	<<	طے	<	ລ	<<	$\sim$	<	$\mathbf{G}$	<<		<
$\mathcal{C}$	<<	5	<	ଚ୍ଚ	<<	$\sim$	<	$\mathcal{C}$	<<	ىم	<	$\square$	<<	سے	<	$\mathbf{S}$	<<	بو	

6. Linebreaking. Letters and digits behave as do the letters and numbers in Latin.

**7. Punctuation.** To date, no script-specific punctuation has been seen. Generic FULL STOP, QUESTION MARK, EXCLAMATION POINT, PLUS SIGN, MINUS SIGN, EQUALS SIGN, left and right CURLY BRACKETS, and left and right PARENTHESES are used; the arabic comma and arabic semicolon are also used.

### 8. Unicode Character Properties.

1E920;GARAY	CAPITAL	LETTER	A;Lu;0;R;;;;;N;;;;1E939;
1E921;GARAY	CAPITAL	LETTER	CA;Lu;0;R;;;;;N;;;;1E93A;
1E922;GARAY	CAPITAL	LETTER	MA;Lu;0;R;;;;;N;;;;1E93B;
1E923;GARAY	CAPITAL	LETTER	KA;Lu;0;R;;;;;N;;;;1E93C;
1E924;GARAY	CAPITAL	LETTER	BA;Lu;0;R;;;;N;;;;1E93D;
1E925;GARAY	CAPITAL	LETTER	MBA;Lu;0;R;;;;;N;;;;1E93E;
1E926;GARAY	CAPITAL	LETTER	JA;Lu;0;R;;;;;N;;;;1E93F;
1E927;GARAY	CAPITAL	LETTER	NJA;Lu;0;R;;;;;N;;;;1E940;
1E928;GARAY	CAPITAL	LETTER	SA;Lu;0;R;;;;;N;;;;1E941;
1E929;GARAY	CAPITAL	LETTER	WA;Lu;0;R;;;;N;;;;1E942;
1E92A;GARAY	CAPITAL	LETTER	LA;Lu;0;R;;;;;N;;;;1E943;
1E92B;GARAY	CAPITAL	LETTER	GA;Lu;0;R;;;;N;;;;1E944;
1E92C;GARAY	CAPITAL	LETTER	NGGA;Lu;0;R;;;;N;;;;1E945;
1E92D;GARAY	CAPITAL	LETTER	NGA;Lu;0;R;;;;;N;;;;1E946;
1E92E;GARAY	CAPITAL	LETTER	DA;Lu;0;R;;;;N;;;;1E947;
1E92F;GARAY	CAPITAL	LETTER	NDA;Lu;0;R;;;;;N;;;;1E948;
1E930;GARAY	CAPITAL	LETTER	XA;Lu;0;R;;;;N;;;;1E949;
1E931;GARAY	CAPITAL	LETTER	HA;Lu;0;R;;;;;N;;;;1E94A;
1E932;GARAY	CAPITAL	LETTER	YA;Lu;0;R;;;;N;;;;1E94B;
1E933;GARAY	CAPITAL	LETTER	TA;Lu;0;R;;;;;N;;;;1E94C;
1E934;GARAY	CAPITAL	LETTER	RA;Lu;0;R;;;;N;;;;1E94D;
1E935;GARAY	CAPITAL	LETTER	NYA;Lu;0;R;;;;;N;;;;1E94E;
1E936;GARAY	CAPITAL	LETTER	FA;Lu;0;R;;;;N;;;;1E94F;
1E937;GARAY	CAPITAL	LETTER	NA;Lu;0;R;;;;N;;;;1E950;
1E938;GARAY	CAPITAL	LETTER	PA;Lu;0;R;;;;N;;;;1E951;

1E939;GARAY		A;Ll;0;R;;;;N;;;1E920;;1E920
1E93A;GARAY		CA;Ll;0;R;;;;N;;;1E921;;1E921
1E93B;GARAY		MA;Ll;0;R;;;;N;;;1E922;;1E922
1E93C;GARAY	SMALL LETTER	KA;Ll;0;R;;;;N;;;1E923;;1E923
1E93D;GARAY	SMALL LETTER	BA;Ll;0;R;;;;N;;;1E924;;1E924
1E93E;GARAY		MBA;Ll;0;R;;;;N;;;1E925;;1E925
1E93F;GARAY		JA;Ll;0;R;;;;N;;;1E926;;1E926
1E940;GARAY		NJA;Ll;0;R;;;;N;;;1E927;;1E927
1E941;GARAY		SA;Ll;0;R;;;;N;;;1E928;;1E928
1E942;GARAY	SMALL LETTER	WA;Ll;0;R;;;;;N;;;1E929;;1E929
1E943;GARAY	SMALL LETTER	LA;Ll;0;R;;;;N;;;1E92A;;1E92A
1E944;GARAY	SMALL LETTER	GA;Ll;0;R;;;;N;;;1E92B;;1E92B
1E945;GARAY	SMALL LETTER	NGGA;Ll;0;R;;;;N;;;1E92C;;1E92C
1E946;GARAY	SMALL LETTER	NGA;Ll;0;R;;;;;N;;;1E92D;;1E92D
1E947;GARAY	SMALL LETTER	DA;Ll;0;R;;;;N;;;1E92E;;1E92E
1E948;GARAY	SMALL LETTER	NDA;Ll;0;R;;;;;N;;;1E92F;;1E92F
1E949;GARAY	SMALL LETTER	XA;Ll;0;R;;;;N;;;1E930;;1E930
1E94A;GARAY	SMALL LETTER	HA;Ll;0;R;;;;N;;;1E931;;1E931
1E94B;GARAY	SMALL LETTER	YA;Ll;0;R;;;;N;;;1E932;;1E932
1E94C;GARAY	SMALL LETTER	TA;Ll;0;R;;;;N;;;1E933;;1E933
1E94D;GARAY	SMALL LETTER	RA;Ll;0;R;;;;N;;;1E934;;1E934
1E94E;GARAY	SMALL LETTER	NYA;Ll;0;R;;;;N;;;1E935;;1E935
1E94F;GARAY	SMALL LETTER	FA;Ll;0;R;;;;N;;;1E936;;1E936
1E950;GARAY	SMALL LETTER	NA;Ll;0;R;;;;N;;;1E937;;1E937
1E951;GARAY	SMALL LETTER	PA;Ll;0;R;;;;N;;;1E938;;1E938
1E952;GARAY		A;Lo;0;R;;;;N;;;;;
1E953;GARAY	VOWEL LETTER	I;Lo;0;R;;;;N;;;;;
1E954;GARAY	VOWEL LETTER	O;Lo;0;R;;;;N;;;;;
1E955;GARAY	VOWEL SIGN E	;Mn;220;NSM;;;;;N;;;;;
1E956;GARAY	SUKUN;Lo;0;R	;;;;N;;;;
1E957;GARAY	VOWEL LENGTH	MARK;Lo;0;R;;;;N;;;;;
1E958;GARAY	GEMINATION M	ARK;Mn;230;NSM;;;;;N;;;;;
1E95F;GARAY	REDUPLICATIO	N MARK;So;0;R;;;;;N;;;;;
1E960;GARAY	DIGIT ZERO;N	d;0;AN;;0;0;0;N;;;;;
1E961;GARAY	DIGIT ONE;Nd	;1;AN;;1;1;1;N;;;;;
1E962;GARAY	DIGIT TWO;Nd	;2;AN;;2;2;2;N;;;;;
1E963;GARAY	DIGIT THREE;	Nd;3;AN;;3;3;3;N;;;;;
1E964;GARAY	DIGIT FOUR; N	d;4;AN;;4;4;4;N;;;;;
1E965;GARAY	DIGIT FIVE;N	d;5;AN;;5;5;5;N;;;;;
1E966;GARAY	DIGIT SIX;Nd	;6;AN;;6;6;6;N;;;;;
1E967;GARAY		Nd;7;AN;;7;7;7;N;;;;;
1E968;GARAY	DIGIT EIGHT;	Nd;8;AN;;8;8;8;N;;;;;
1E969;GARAY	DIGIT NINE;N	d;9;AN;;9;9;9;N;;;;;

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### **10. Bibliography**

- Dalby, David. 1966. "Further Indigenous Scripts of West Africa: Manding, Wolof, and Fula Alphabets and Yoruba 'Holy' Writing" in *African Language Studies* 10: 161–181.
- Mafundikwa, Saki. 2004. Afrikan Alphabets: The Story of Writing in Afrika. West New York, N.J.: Mark Batty.
- Rovenchak, Andrij. 2010. "Development of Fonts for African Scripts: Using Computer Technologies to Preserve Africa's Written Heritage." in *Afrikanistik online*, Vol. 2010. http://www.afrikanistik-online. de/archiv/2010/2760

# Garay

1E96F



Date: 2012-04-26

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### Consonants

Con	SÖI	nants
1E920	ð	GARAY CAPITAL LETTER A
1E921	j	GARAY CAPITAL LETTER CA
1E922	Ň	GARAY CAPITAL LETTER MA
1E923	ற	GARAY CAPITAL LETTER KA
1E924	$\mathcal{L}$	GARAY CAPITAL LETTER BA
1E925	£	GARAY CAPITAL LETTER MBA
1E926	ຎ	GARAY CAPITAL LETTER JA
1E927	່ຍັ	GARAY CAPITAL LETTER NJA
1E928		GARAY CAPITAL LETTER SA
	3	
1E929	€ D	GARAY CAPITAL LETTER WA
1E92A	~ 1	GARAY CAPITAL LETTER LA
1E92B	P.P.S.	GARAY CAPITAL LETTER GA
1E92C	Й.	GARAY CAPITAL LETTER NGGA
1E92D	Ŕ	GARAY CAPITAL LETTER NGA
1E92E	G	GARAY CAPITAL LETTER DA
	ଜନ୍ମ	
1E92F	ß	GARAY CAPITAL LETTER NDA
1E930	ß	GARAY CAPITAL LETTER XA
1E931	Ð	GARAY CAPITAL LETTER HA
1E932	ສ	GARAY CAPITAL LETTER YA
1E933	$\mathbf{G}$	GARAY CAPITAL LETTER TA
1E934	$\overline{\zeta}$	GARAY CAPITAL LETTER RA
	5	
1E935	2	GARAY CAPITAL LETTER NYA
1E936	Ģ	GARAY CAPITAL LETTER FA
1E937	$\square$	GARAY CAPITAL LETTER NA
1E938	$\mathbf{\mathscr{O}}$	GARAY CAPITAL LETTER PA
1E939	5	GARAY SMALL LETTER A
1E93A	_	GARAY SMALL LETTER CA
1E93B		GARAY SMALL LETTER MA
	$\sim$	
1E93C	ш	GARAY SMALL LETTER KA
1E93D	^	GARAY SMALL LETTER BA
1E93E	~`_	GARAY SMALL LETTER MBA
1E93F	B	GARAY SMALL LETTER JA
1E940	à	GARAY SMALL LETTER NJA
1E941	11	GARAY SMALL LETTER SA
1E942	Ŷ	GARAY SMALL LETTER WA
1E943	N	GARAY SMALL LETTER LA
1E944	ų	GARAY SMALL LETTER GA
1E945	Ĥ	GARAY SMALL LETTER NGGA
1E946	Ĥ	GARAY SMALL LETTER NGA
1E947	r	GARAY SMALL LETTER DA
1E948	ž	GARAY SMALL LETTER NDA
1E949		
	Ъ	GARAY SMALL LETTER XA
1E94A	طے	GARAY SMALL LETTER HA
1E94B	$\sim$	GARAY SMALL LETTER YA
1E94C		GARAY SMALL LETTER TA
1E94D	$\mathcal{C}$	GARAY SMALL LETTER RA
1E94E	$\sim$	
1E94F	ہے بھ	
1E950	-	
	دىپ	GARAY SMALL LETTER NA
1E951	بو	GARAY SMALL LETTER PA
Ver		atters and athen menter
vow	ei	letters and other marks

## Digits

1E960	0	GARAY DIGIT ZERO
1E961		GARAY DIGIT ONE
1E962	l	GARAY DIGIT TWO
1E963	4	GARAY DIGIT THREE
1E964	٤	GARAY DIGIT FOUR
1E965	የ	GARAY DIGIT FIVE
1E966	φ	GARAY DIGIT SIX
1E967	В	GARAY DIGIT SEVEN
1E968	∀	GARAY DIGIT EIGHT
1E969	٢	GARAY DIGIT NINE

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 1E958
 GARAY GEMINATION MARK

 1E959

 1E954

 1E955

 1E958

 1E958

 1E958

 1E958

 1E950

 1E950

 1E951

 1E952

 1E955

 1E956

 1E957
 X

 GARAY REDUPLICATION MARK

1E952> GARAY VOWEL LETTER A1E953> GARAY VOWEL LETTER I1E954> GARAY VOWEL LETTER O1E955> GARAY VOWEL SIGN E

GARAY VOWEL LENGTH MARK GARAY GEMINATION MARK

1E956 c GARAY SUKUN

1E957 \_ 1E958 <sup>^</sup>

Date: 2012-04-26

Les consonnes de l'alphabet garey: SMNRNJD11LE. M, L MB B P T HHHAANPASSe NOIDIY W H KH NO 9 N.9 9 t soit all? . ~ ~ F GN R a: 1 21NIH Les voyelles: All Double moto Stalle A (x ss . 10 P V 9 9 9 2 5 < 1 10 9 87654321 1. 9 NVYOEMTI Si un alphabet est complet avec les lettres et les chiffres qu'il faut toute déficience de l'individu, a faire greelque chox avec est due à son incompètence et non à celle de l'alphabe

Figure 1. Chart of the Garay alphabet by Assane Faye.

			Table II	The	Wolof A	lphabet	of Ass	ane Faye	;			
	CONSONANTS VOWELS											
	INITIAL	NON-INIT.		INITIAL	NON-INIT.		INITIAL	NON-INIT.	(PROVISIONAL 1	DENTIFICATION)		
[ā] (1)	2	5	w (8)	ଚ	ş	y (40)	$\mathcal{D}$	$\wedge$	а	1		
c (2)	0	2	<i>l</i> (9)	R	N	t (50)			з	,		
<i>m</i> (3)	Â	$\sim$	<i>g</i> (10)	Ĥ	Н	r (60)	Ş	5	е	5'		
k (4)	யி	ш_	Ŋ9	Ĥ	Ĥ	p (70)	3	$\sim$	ö	35		
b (5)	R	~	ŋ	Ĥ	Ĥ	f (80)	G	5	i	$\mathbf{X}$		
mb	K.	<u>^'_</u>	d (20)	G	I	n (90)	6	سہ [ ح ]	Э	,		
j (6)	ඩ	Ø	nd	Ġ	ż	p (100)	Ð	رو.	о	,5,		
nj	ġ)	ä	x (30)	G	Ą	L long vowe	DIACRIT l (postscri		и	,5		
s (7)	Ĵ)	11	ħ	A		zero vowe	l (postscri	pt) C	ð	15		
3(1)		11	"	4		double cor	isonant (si	uperścr.) ^	ü	\\$		
NUME	RALS .	1   2	1 3	4	4 2 5	96	ዋ :	7 8 8	• <b>∀</b> 9 P	10 10		

Figure 2. Table of Garay characters from Dalby 1966.

50-50 (13/1 A-IN CALLA 5-352- 255 35 101 .1.5 . Nie NO an ISEN 15- 510 - 55 212 NISP - 2 1100. 20 ĀĀĀĀ=||||=555 222 1= 1-2/12/112 10 10. (-was 2 -10 AIN ALL 1S. ISCON 15235M HL 3SUL 15 NISP. .IN Gize Le 20 21-21- 20- 2 2-. work = 14 S. R. R. R. R. R. R. R. +158 252 Q-IND ENLA 20- 220- 2010- 2020-MALLISTW ENDESSE : ENONSDIE בוצו ב לבצו י ליל ב לוצב לווו בים בלב אווו · NIR 1H3/1 Louis M. S. M. 11 15 NIDIA 2 2500 35N 22 1an ser pide mie - Diecom Die - 10-12 815 NISE- 350 402500 25N/Q. M. 152- 2 SNIS ( 100 c w Big - 12 cm 15 + 12 cm 13 All DE 2500 m De ile . MISA N.S. -SNGIBILIZSMGIH & N. · istlegoss 2111-20 M 1H-12 11211 M CIDE E-HIME 1.818999(P) <= 1= C-SSHIN SIHIN SULING WIDU Jer-100 MIRIN In 2 Still an in a -> she all we win No 352 INCLIE 3 HL NISK255 No 9 4 NISP-1511 9 4 N-14 5 and seek and in survers and in the .M-1N/1/19 E-W-1M-18 cuilles  $( \prec )$ 

Figure 3. A primer by Assane Faye. On the right, introductory text; on the left, the letter A.

= M · cN\_ in 100 sient . < N-3-100 35212 MMMM=pppp=MMMM Thi Thi Thi = ??? ·: /: == ha ha ha ha mennens m-m-m-m-m. m. - sin sin -son -15M -15M as an 15M 15M - うどうどうちょうちょうちょうちょうちょう יל בינהא-ובונה-ובונב-ובינב-וב Ac- Mede- Mac - Mede SE ISpic wite ith in lich 10-1 Dich smole on 25 + 6 m - 2 mich - Mac m - 1h -2 12-12-15h-52:00352-12 canife and = 1-1m man in a astin 15 . an - Millio. ar in 2. 1. Million mil שני שניני שוני שוני. .11-1-· c/1-25/2 som istellesom - wat . sSII SH and ILL CHSO chose IN an an . In - 10 al - 2M a - 104 Re 212- 1 Ale w 2 0 21 Ale 20 2 20 -cm-32-12 Iwcmis : wish (2) (4)

Figure 4. A primer by Assane Faye. On the right, the letter CA; on the left, the letter MA.

· cN\_Bc winning sterk = 1 Miste Blegere-Mar. KKKK = 5 5 5 = W W W W in and and and .KKKK . \_ UL UL -> UL \_\UL - IUL CUL > UL \UL IU -in in -sh -in - manshin -Sun Sin -> Sun - Sun - 1844 - 1844 - Sun 3844 - 1941 Run in in when we concord as the son - 1 = - 1 ere - 12e - 12e2. ( د ال و ، ال و د ال از ب ۱ ال و او ، ال و - ، ال ch - sh in - 15: 152 Bech - 350 a to - 3544 " in a 1114 . 35m 3544 . ISTUN SUL · cll-In\_ i cll-352 seg-35ke er-3A · C V 1 1 111 - 111 . NISSIE · NSPSill ch - 3 M : - 1 N 14 HID SHI SS INON IS INITE W-14 is anon site man is · c 00 10-11 enu-inu stor som (9) (9)

Figure 5. A primer by Assane Faye. On the right, the letter KA; on the left, the letter BA.

. 9 . 9 = 8 = 1 Ar 220 Blesde- Mo 6 M-250 Blevele-M2 M'BM'BH'B Di Di Di = 7 7 7 = 8 8 8 8 adaa . KEKEN . - ちん うん - へん - ん っんっん んん -19 19-39-18-18.8, 9, 9, 9, 0 「いん うれこ しいん いん ころん ころん いろん いろん いろん . - 2012 - 272 - 2612 - 12 Be-Bete- Ble-Blete. · 10/14 . 12\_34 . 30-15 . 10-10 · cm-1wgA ich-12 ccN-12 c12-12 12 ogin icq - siz cell-she istu the com - ske B. 18 BI-10 SILI BI- 10 · 10 m2 m city-in cm-im and cmik BINIGON BILICO INTO 0 - 1 - 1 K - 1 - 6 c--- 552 HOSM INCM-IN' C-IN JAAN SSE SIS = 14 chim a Neder : 100 مرد مردد مدا- مد م ال مرد معر مرا ال 12 12 INIS 12 CONSP en-i all 15 eN-SN INOD - in 359 معدو الله و مد - حده. MIBIN DE CALSE (4) (9)

Figure 6. A primer by Assane Faye. On the right, the letter MBA; on the left, the letter JA.

. = // אוגוב באנים באניאים שוואוד 9=8 SSSS= www.we=11111 N'DI N'DI N'DI= UUUUU 3030-10-10-10-10-10 -11 11 -sll-11 -111 all sll 1110 310 350-350-50-50-50-50,50,50,50 \_SII SII-SII-SII \_SII oSII SII SII SII פנ-פנונ- פונ-פונוני. · 15-00415 8.00418.00418 .004-12 cll 18 co - 11 c SII-SWic 11-11 c 11-11 -w-18-18, cm sleemsser : 18 coll-som com-Mecli- Mico-w-SI il Bitsmich-18 acrima D. a. h-10 · · PILLEG - Ille C-W-IM clips · 66/12 . 21 1418111 CASSN INCOMES BELLEN -100 10 000-20 15-WISHIN 12 IN-10 ch 15 5-14 . In 1215 1 - 102 is a line -idia INIMIR-IDEM-SRINISAIS 10 11 is a less a alle 18 we asther is . IN ULINIS IN UN SSN 10-10. IW 352 · 1 Nog 154 (P) (10)

Figure 7. A primer by Assane Faye. On the right, the letter NJA; on the left, the letter SA.

. Isin son sign في و معدد و الله در الله LLLL=JJJJ=NNN WWWW= 9999=9999 වවවට . N it it -NN-N-N-INCNONINIA לרו בנו בנברו בנו בנו בנו בנו לו -SN SN-25N-1SN-15N all 35N SN 154 · - 2555N-35N - 250 - 3 AZ Be- Rede- Rde-Rdele. ABC D. chi Pec II. Pe cliper with - emistergen-IN- c-win infecmin -staNcom in -IN coNINIAnce Do NILL 10015Pic MISHISPic wiPic w-11018 1917 - Picl1-1960-1-1200 - 18 .coc IN 3 WE CH IN & IS Jam 350 · c - w 1 2 · IN c-w 19 cm 15 - 14 AL INSUNSUN STA 24 .INO - 1 - 1 - - 350 ASE SIN ONINS STOC Bis olou - soo IN. with حدوث، بملوحدو مسترال WIII2. 12 1215 12 001 2012 . cm-INIII . INOCIGIE am 15 , SN (11)  $(|\langle)$ 

Figure 8. A primer by Assane Faye. On the right, the letter WA; on the left, the letter LA.

10 = H 10= H auson-singson sient ear is and sur a son asia 6666= 333 - HHHH NGNGNG======= HHHH . HADE -3H 3H - H - H - IH CH SH HI A 3H 3H -3H - H - 1H oH 3H HIH - SSH SSH - SSH -SH - ISH ost sth SHIR SH 35H-35H-SH-SH-ISH SH SH SH SH He- Here Here Here Here chostit is state or stice of the with sofit collattichesttic N-ittich is it 1 og- ISH og-SHEOM. HESSM-1H 5 a NIH 35- sthe - sticch - it- 12 . NIL as SHO Hasse wer-142 strille ans A CM-INILLIPCON-SHONAINSH · szolst . 111 a 111 Fr THASSOCIN CM-sh. INIUL CHIHE-153215 N all 150 gr is all 15 12-100 Que Hishows with the Acte were · 12 cm Ill clossoc sSN in (1=) (1E)

Figure 9. A primer by Assane Faye. On the right, the letter GA; on the left, the letter NGGA.

10 = H cm. 15 c N- 5 m 35 2 14 ĠĠĠĠ=ĔĮĔĮ=HHHH . E E E E HHHH J. S. S. S. S. S. - S. - S. S. S. S. S. H H-sH-H-iH-iH oH sH Hit באנ שנו שנו בו ביו בנו בנו בוו בור בור . - IH SH - SH - SH - ISH SH SH SH SH De- Bere- Ble- Ble-He- Hele- Hele- Hile-Hile . DISE & I will a Man 1 Relther 19 . Iw in the Higo wer still Preser still and a still were Prosense in server server 200 200 cco - iHec N- iH & IM - iHer will cH-S 04-12100-12100-18210012100-152 He- yours Hele- Man Helevers .X.11-, it = 111.6 · IM OM IG -18 INcom-sh. XIII-stick-sman 1111 15 IAIR STA INOIL-10 HIA CIN 10N-20 1-W-SII. isn 12 cm25N-111 an-ININO . IL ISAI I CMILIO (19)

Figure 10. A primer by Assane Faye. On the right, the letter NGA; on the left, the letter DA. On the right,  $x_{1/2}$  indicates  $D\bar{o}si \eta \bar{o}si$ .

5 415 0 N- 5 4 3500 35 2.1 K 20=2 Kh Kh Kh = > > > > > > > . E G G G .GGGG 「き」を、「き、「も」、「」を、」を、を、 م) جامرو حده حدا- حدو- خ خ -... אול שיו שוני שוו ביו באו באו באו באו שוו באנ בא ובוצר באם באו-באו-באני ביצ ביצ یک یک ور بخار باد ور عاور حا وكور حاكور حاكوكور - Iweens a ware with a china willing consecond com- Becaule فحرمه المح مع مراس مر محمد مع محد مع محد محد -52 . c-w-10-15 2 . c & -52 152, 54 1NIA am Willig . man 3 & com 1500 15 Ce - crossins cimisados .0416 150 15 0 Losan Macho CM 15 5-14 2 12 chosac IN am-on IN-12 c-12 بخرها مدو محدوم و مدر- مد . (19)

Figure 11. A primer by Assane Faye. On the right, the letter NDA; on the left, the letter XA.

E0= 10 сшлон-12 эле эбе 50= YYYY= sgg = land hhhhh=>>>> · - 2 2 - 2 - 10 - 10 - 10 0 0 36 1 10 -The siv -ssh -ish -ish estossh ish it حدد حرد حرد حرد حرد حرد مرد مرد مرد حرد حرد Ne- Acte- Mie- Mie- Alele. - - - - وكو- - - الاو- - - - الوكو- · Man isweer in Dean - 2 to a com 21MIN SAIM-12 COMIN OMIN · IM-INOINOSE Sto. c.w. 11-1Demis (15- -INNOSECMIDNICIE CINIS حروك و- فل- ، حرك و م الم . مركو س ، طار ما. 1- chiller we to ge 1 weg - 3 to a Mash · > ILL IN CNISK 150 .P\_2 ..... Nilles som-N som INcP-h cm15 5-14 sharton 15 cons on 15 ch-3Mg-14 · cmix min i zasto cminan with a with a star all is a constant all is an (20) (P)

Figure 12. A primer by Assane Faye. On the right, the letter HA; on the left, the letter YA.

-N-Sustan act-100 stank 90 20 = 09 · CN-Sturster ov-100 3521K TTTTT======mmmm RRRRR=JJJ=vvvv EEEE. · Co Co Co Co -ジャーシャート -レット・シャート ها، هدا هد هد هد هد هد مد مد مد -52 52-354-156-156 056 356 156 15 מאני מזי מזי מזי מזי מזי באיו באיר מיני מי هاد- هدوكو- هكرو- هكروكو-. Pigeer-1BCOM-10 CON-1N35BIMIE ( PID ( ) UL allism is to a construction of the socias from second constant COMIDEMIDEISTA = 1500 CD ISMECC-100 Mimistorisan - 2500 . A - 100 . X cmile = · Xer-sso in chart · Xec-252 de ch-2M :- 12 N-3N ofice ast inashing all 15 5 - 14 -10012 0 12500 IN 0 M -3 # 0 an-INIMIS I with also IN an-on 1 too - in sthe case is 1 hood IN succount  $(\langle \rangle)$ (<1)

Figure 13. A primer by Assane Faye. On the right, the letter TA; on the left, the letter RA.

.90 oc N-50- 3500 00-100 3521K eN-Sunssence-100 star \$0=52 . 1. 00 0 muis ·05-100 04415 Gn Gn Gn = . GGGGG 201 201 201 201 201 - 201 - 201 - 201 - 20 20 المحاد محاد محاء محاد محاد محاد محاد محا שני שלני שלני שלני. بحدو- بجوكو- بحكور بحكوكو-. Hindia 20190 100 100 109-100 109100 enner - 170 . 66-1- FC . 6615- 50 . 6 N-16 0 m 100 : 000 1 Pin - 2500 : 00 - 00 -100,000 Por Biors 0.011-100 بعدا-11 00 بحداد - 22 ، 20 بعدا، 20 و بعدو، مروره مطالب ما بجدا - سه ما جاد فار فاور · 0 g - 100 10 h 100 : 100 00 100 00 ·1116 · alic 1Nollis 89155-14 are sore reduce where Nosa chose INolioc ofis sit ערנים או אנ ביושים בל יאוואו . cm - 12-15 chie ssecon  $(\langle \Sigma \rangle)$ (15)

Figure 14. A primer by Assane Faye. On the right, the letter NYA; on the left, the letter FA.

N-STUSSE STRIK 00=-N-Stusse is RIK 100=9 M-9536-95804418 1. m . w/ w/ 100 cll 13 ورولوا في في PPPP SPP PP . Cue Cue Cue Cue ليكالوالوولوه كوركوارا دسار دساندونده دسر\_ مدر مدور مد مد בל כי לי שלו- נצו- נצו על ב- נצו על 521550 د المار مدر ا مدر و مدر مدر الدر المدر المدر المدر المدر المدر كووكو- لوكو-لوكوكو-. ليكور للدوكور للسكور للمدكر وكور. with a 120 a with a came - in go we -25h = 15th c - w 25h = 51 - w 1 20 cm 1 Slame - 18 515 cm 2 Star 60 · 10-10 ell-secoll-specificalland واظرار وهاي مولوا 5-BOWININ 2 SHINA-ing 10 SIN NEDT - BN- 3NO D- in SHOLIGIH. BN- 3N 12 in 21200010  $(\langle \varphi \rangle)$ ( < 9 )

Figure 15. A primer by Assane Faye. On the right, the letter NA; on the left, the letter PA.

· CM-121212151501015 40= 20= N 1=1=5 50=90= 2= 2= 2= 2 60= 90= 6 3= 3 = M 70= 90= 0 4= 2= 1 80=40= = 5=9= ~ 90= po = ~ 6 = 9 = 8 : 1 10111 a 111k 100=100= 7= 9= 11 - ( ). 8=91=9 P& HH & 9= p = N 10 = 10 = H 20=20=2 . M-1N/1/12 30 = 50 = 0 (<9)

Figure 16. A primer by Assane Faye. On the right, a summary of forms; on the left, the digits and numeric values of the letters.

HIG IND - MAN , SROM IND CNIE Le 25-WILW &- 35HIN HILL IN IN IN-15 ONIN BIHIMS SIARIAN IS WILLOW'S Swingerit's in-inco a'sa annodece -25h 50-500-12 +12-1142 9 p- 15 95-20120 Esseres as as a son is - i BSI ISI SILISO N-1H-W/12E16 20191811 -1100 1111 NE 6-FC 2-00-511 11- 15 25-12-250 with an Iw 22,02 m m 2 3 C. , 2 20 9 - 52 · N-VSUL NILL ase-SE dis con SR gul In 115 1 8- M-191 H 25-6 11 15 15W a No SMA K-1915 110019150 89-50 Stor ILL HIL ME. ER 3N35 N- Margin 3500 in These 250-101HN0511 3 44 3 SHIM 11-15 UNS SUISSA N-1H 159-510 1500 95 Q - 15/25A , c-w\_1-15-15 CARDER (2P) · M-IN/1/11.P.

**Figure 17.** The final pages of a primer by Assane Faye. Note the word-underlining on the left but not on the right.

gass) 21ee Agon Hosm De es N-sen. wan and and en RM sale Istiss 1)SM( 215 x 1/1 2-25/1 D. en 2 -2 N-2 CH (H) 1-12, 25H C - 3 1/. - 2 12 (A)28 N/10-101 2020 (1)22 5H3 15-811 23. 320 25H25 & Lats X8-250EM 95 & ED. E M-9 85 11500 Se M-IN-IN R M-9N-912 = N959. 12 ord gol 251 M R. 10035930 ? e-55 & 1N196

**Figure 18.** From a maths primer by Assane Faye, 1982, showing lower-case letters and upper case letters. On the left is shown  $G \ni and (D \ni t)$  and  $G \not\ni and (D \not\ni x)$ . On the right, G, an, H, an,  $n \ge (D, t, g, b, mb)$ .

- asine そ=との:01/52 .Sauriliers - 2 N - 2 N -15Inzen - 25 2, 358 M950 一一一 1158958 2-51 20 15211-1 5-ce :>2 958 -958 150158-2022 #301158,5 2-12 1-21-21-21-21 3215 RIN HY 211552 INIS



Figure 20. Title page of a book by Assane Faye. The text reads:

ריאש\_שיט ריאוויע ביזיט הי-גי מיאוצעי בי איואאון יה. הימעייגי אי הי הי גי עייאויי... רי-מי-עי.

Alhāji Asan fay mōro ligēy ci 22/2/1/2 mb. Yalnaro B. Y. naŋŋgu... Āmīn.



Figure 21. From a book of stories by Assane Faye. The title reads الكارثور المكارثور المكارثور



Figure 22. A woman writing in Garay. Note the map to the left with names written in Garay script.

572 Dese PI- RILINES Des H WIL Leeñes MIIIIA

**Figure 23.** Garay text. The final swash has been added to the glyphs, but note that on the map it is not present. This indicates that it is a styliastic variant, not an obligatory feaure of the writing system..

é en eur ou o u i e a s= 2 - s> 25 > \\$ \ 15 1 . SS S X A えん んこう あり にここう . 云云云苏柏井 نا الما الم عدار بي المرا آزا ن الذي ه ق بي المرا بي المرا آزا بي الذي ه ق ق ج الم ما ه ق ج الم ما :20 100 - Hole .15<0

Figure 24. A primer by Assane Faye. On the right, the letter GA; on the left, the letter NGGA.



Figure 25. Assane Faye, some years ago.

## A. Administrative

1. Title

Preliminary proposal for encoding the Garay script in the SMP of the UCS

2. Requester's name

#### UC Berkeley Script Encoding Initiative (Universal Scripts Project)

3. Requester type (Member body/Liaison/Individual contribution)

Liaison contribution.

## 4. Submission date

2012-04-26

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

Yes.

6b. More information will be provided later **No.** 

# **B.** Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

#### Yes.

Proposed name of script

#### Garay.

1b. The proposal is for addition of character(s) to an existing block

No.

Name of the existing block

2. Number of characters in proposal

#### 69.

3. Proposed category (select one from below – see section 2.2 of P&P document): (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

#### Category A.

4a. Is a repertoire including character names provided?

Yes.

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Font related: Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard? **Andrij Rovenchak and Michael Everson.** 

5b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.)

#### Andrij Rovenchak

6a. References. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? **Yes.** 

7. Special encoding issues. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes.

8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard. **See above.** 

# **C.** Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

#### Yes. N4044 (L2/11-181)

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes.

2b. If YES, with whom?

#### Assan Faye.

2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

No.

4a. The context of use for the proposed characters (type of use; common or rare)

### Relatively rare, but with potential for revival.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

#### Scholars and some local use in Senegal and the Gambia.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? **No.** 

6b. If YES, is a rationale provided?

6c. If YES, reference

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

#### Yes.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

**No.** 8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

Yes.

10b. If YES, is a rationale for its inclusion provided?

Yes. Resemblances are superficial.

#### 10c. If YES, reference

11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?

Yes.

11b. If YES, is a rationale for such use provided?

No. 11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?