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Project Brief

# A new face for news

This project will focus on developing a typeface family for present day web & print newspapers with complex typographic layouts which require typographers to set content with different lengths into a predetermined space.

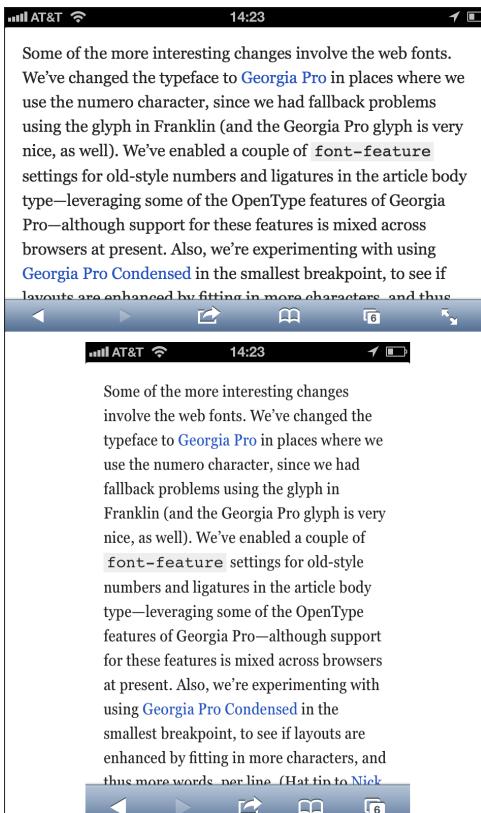
The type family will contain a set of fonts with different overall widths but have the same appearance and color as the primary face. The project is not explicitly targeted towards a medium such as web or print. The character set will support Latin extended, Thaana and Sinhala languages.

## Background

Newspapers, both web and print can be considered as one of the most challenging and complicated pieces of typographic design. Newspapers require the building of a clear typographic hierarchy in a strict space structure and make sure that typographic arrangement does not interfere with the meaning of the text. When setting sensitive pieces of news in a strict space it is important to maintain a clear differentiation. In a single page of a newspaper we can observe a range of typographic elements such as titles, subtitles, pull quotes and meta information. Making the task more complicated, typographers have to fit in as much as possible text into a page without compromising any of the above mentioned aspects. Typographers use of type families with a range of styles to build aforementioned complex structures. Recent projects like Guardian Egyptian is an example where type designers were asked 'to draw as wide a range of weights as possible'.<sup>1</sup>

In the age of web newspapers, the typographers are facing the same challenges in a different context. More medium specific information elements and interactive elements such as hyperlinks and audiovisual content have become an integral part of a web newspaper. This interactivity and the dynamic nature of the web poses new possibilities and challenges to designers. A typographer designing for the web has to think about their design as a system that would adapt to different sizes than a static design. Since the start of digital type the type size has been an abstract metaphor that is realised only once a design is printed. But in web publishing the typographer has completely lost control over the size of the type. On the web, the size is a more abstract formula that is defined by the relationship between screen size, design elements, typographic elements and user preference.

This project is focusing on space economy related to newspaper design. It is a common concern for newspapers published



*Figure 1:* A List Apart (<http://alistapart.com>) responsively switches from Georgia Pro to Georgia Pro Condensed when horizontal space is tight.

in any language and often for Indic scripts with wider letter-forms this is crucial.

Typeface designers have been experimenting in the area of improving economy for centuries with adjustments to ascenders, descenders and forms themselves.<sup>1</sup> And the need of space economy has not lost its significance even in the age of web publishing.

As discussed the space related to newspaper design is not always about just using less space. In newspapers, articles with different lengths are often required to be set in the same spread within predetermined spaces. Typographers end up doing slight adjustments to type in such situations to match the length of text bodies to match the space while maintaining visual consistency. Switching to a narrower version of the same family is not seen in print design as it would cause a dramatic change in the texture and colour. But in responsive web design dynamically switching to more economical typeface families or narrower or condensed versions of the same family in smaller viewport sizes is seen. (Fig. 1) The same concept can be used in print newspaper design if designers are provided with versions of the same family which has the same typographic texture but accommodate less space. This project aims to provide that very solution.

## References

Identifying the common characteristics of popular newspaper typefaces will inform understanding of the genre of typefaces. The following typefaces will be evaluated to understand the letterform proportions and relationships, relationships between styles and weights, adjustments for smaller sizes and specific adjustments to save space.

- Linotype Legibility Series
- The Reading Edge (RE) fonts by Font Bureau
- Gulliver and Coranto by Gerard Unger
- Chronicle Text by Hofler & Co.
- Experimental No 223 by W. A. Dwiggins

1. M. Stanley, 'On the classification of typographical variations', in *Letterforms: typographic and scriptorial* (Point Roberts, WA: Hartley & Marks, 1997), pp. 3–94 (p. 16).

## Specific concerns in Thaana script

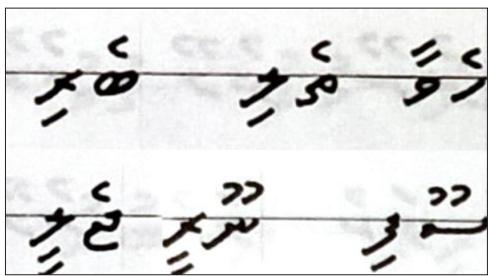


Figure 2: Thaana script vowel strokes.

Thaana script is used to write Divehi, the native language of Maldives. The script is used by around two hundred and seventy thousand people living in the Republic of Maldives a set of islands southwest of India. Thaana is a vocalised abjad and written and read from right to left. The Thaana script has 24 consonants (Akuru), a null consonant (Alifu) and 10 vowel marks (Fili). Fili's are added to above or below the base consonant to make it a syllable. (Fig. 2) Thaana uses Arabic numerals. Arabic characters such as XX are commonly used in Thaana texts.

Maldives had at least two more distinctive writing systems prior to Thaana, Eveyla Akuru and Dhives / Divehi Akuru both of them were left-to-right scripts. Thaana script was developed in 18th century to meet the needs of the Dhivehi language by the scholars who were fluent in both Arabic and Divehi Akuru.<sup>2</sup> It shared many characteristics of Arabic scripts since the alphabet has derived from Arabic and ancient Divehi Akuru. Some of the characteristics of Arabic writing had been modified in connec-



Figure 3: Development of Thaana script. Left, Divehi Akuru manuscript from early 1600 CE. Middle Early Thaana manuscript from 1700. Right A pagehandwritten book from 1945. Source: National Centre of Linguistic and Historical Research (NCLHR) Male, Maldives

tion with Divehi Akuru early in the development of the script and overtime the relationship to Arabic has faded.<sup>3</sup> (Fig. 3)

The first nine letters of the Thaana alphabet were derived from the first nine Arabic numerals, the next nine letters were derived from a set of old Dhivehi Akuru numerals. And the last

2. Bell, H.C.P. 1919. "Appendices." W. Geiger, Maldivian Linguistic Studies, Journal of the Ceylon Branch of the Royal Asiatic Society 27 (extra number), edited by H.C.P Bell.

3. Muhammad, Naseema, 1999. Dhivehi Writing Systems, National Centre for Linguistic and Historical Research , Male, Maldives

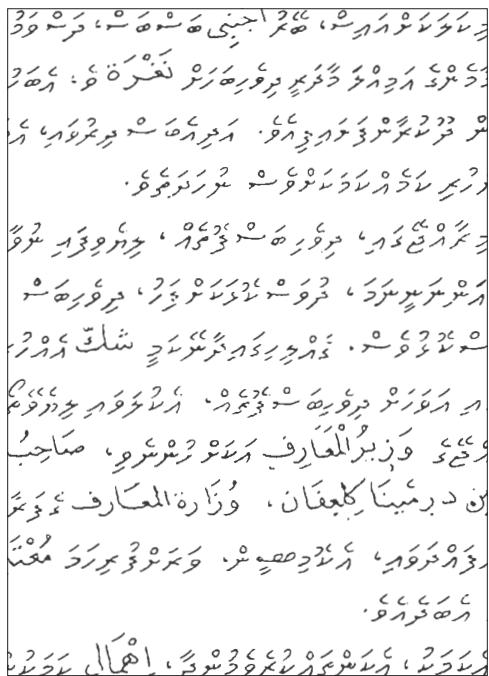


Figure 4: A lithographed book from 1960. The use of Arabic script is common in this time period. Source: National Centre of Linguistic and Historical Research (NCLHR) Male, Maldives



Figure 5: A page from Havveru, the national newspaper of Maldives. Titles are set in MV Waheed typeface and body in Faseyah.

six letters of the alphabet are modifications to the primary letters with an addition of dot which were added to accommodate the remaining sounds, mostly for transliteration from Arabic. These letters were added much later in 1957, and called *Tikijehi Thaana* (Dotted Thaana).<sup>4</sup>

The Thaana script had a rich calligraphic appearance under arabic calligraphic influences. It is common to see many Arabic characters in between Thaana manuscripts and lithographed books from the 19th and 20th century before the introduction of *Tikijehi Thaana* letters in mid 20th century. (Fig 4) This rich calligraphic declined during the lithographic printing era from 1930's to 1990's and reached the current state of the script which is more monolinear in stroke behaviour.

Although there are records of lithography printers in Maldives most of the books were printed in Culcutta. Calligraphers used to go and stay in Culcutta during the printing process.<sup>5</sup> In 1977 the Maldivian government changed the official script to Latin for a short period before changing back to Thaana script in 1978.<sup>6</sup> Letterpress presses and phototypesetting was used for typesetting in the Latin script, there is no record Thaana script printing in any other methode than lithography.

Thaana fonts used in current print and web newspapers and publications are mostly monolinear and have a strong slanted appearance due to the stoke arrangement. Current typographic forms of the script are extremely structured and linear. Three horizontal levels, base letter level, above base vowel stroke level and below base vowel stroke levels are strict and give a strong feeling of division. (Fig. 5) Since the above base marks and below base marks are identical in form typographers are forced to make the line heights extremely high. Majority of the letters have small counters at the beginning of the stroke and in order to make them legible typographers are making the body size larger. The body text size on the national newspapers average in 6 mm with leading averaging at 2mm. The first ASCII encoded Thaana fonts are a base for the current state of the Thaana typographic forms. The standardisation of Fili's (Vowel strokes) led to these typographic forms and strong division. Even the fonts developed after introduction of Opentype and Unicode have followed the same structure.

Another area of confusion in Thaana type setting is matching punctuation marks, Latin characters and numerals. It is common to see slanted punctuations marks, numerals and latin characters in Thaana fonts. There seems to be no con-

4. Maumoon, Y. (2002). A GENERAL OVERVIEW OF THE DHIVEHI LANGUAGE. Male, Republic of Maldives: The National Centre for Linguistic and Historical Research, pp.55-79.

5. Document in translation

6. Ibid.

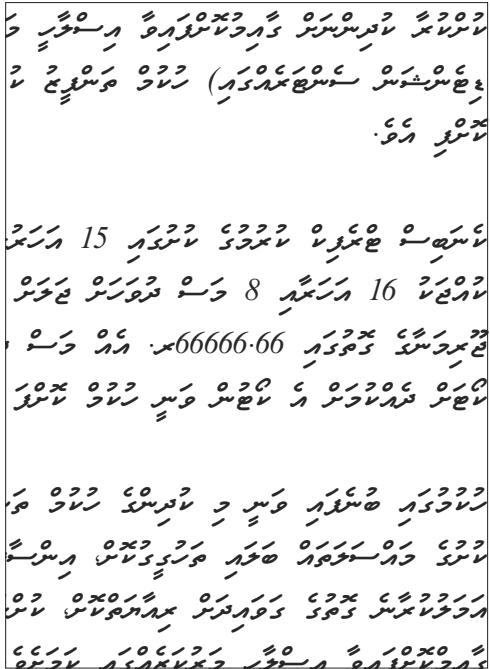


Figure 6: Use of slanted Latin characters with Thaana.  
Image from Haveeru, National newspaper of Maldives

sensus on this, different type designers and typographers are using both slanted Latin and upright Latin characters. (Fig. 6) Use of slanted characters is probably prompted by the strong 45 angle of the Thaana letters.

The relationship of Latin and Arabic characters to Thaana is another area that has room for improvement. When Latin characters are set in a paragraph of Thaana texts, they tend to stand out in the texture of the paragraph. Proportional relationship of these three scripts were explored by Hassan Hameed and he suggested a logical solution to this considering the technical limitations of early font technologies. But from a brief look at the current fonts, it is evident that revisiting this relationship is a primary requirement.

Some of the fonts developed recently for Thaana script have been heavily criticised by the native readers due to 'handwritten' and 'childlike' 'feeling of the fonts. A design rooted in the calligraphic base of the Thaana letterforms is required to avoid such mistakes.<sup>7</sup>

The limited number of typefaces have made the Thaana script based print and web design very limited in scope. It is obvious that any typeface that improves space economy will benefit both web and print news publishers immensely. The typeface should solve the above discussed issues with a design of a new compact typeface family for the Thaana Script that will fit newspaper publishing needs.

### Specific concerns in Sinhala script

සිංහල අකුරු, ඇතා අනීතයේ පටන් ඒ බේ දියුණු වෙමින් අප කරා පැමිණ තිබේ රස ඉතිහාසයකට උරුමකම කියන්නක්. නා සූන්දර ප්‍රකාශනයක් හැවියට මත බෙන ජීව ගුණය, ආච්චික හැඩ තල නා ලෙස හඳුනා ගෙන සිටි නිසසි ඒ.

මුදුන කිල්පයේ සම්පූර්ණියත් සමග, තුපාත, ප්‍රායෝගික ව වඩාත් නිවැරදි ඕව් මුල් කාලයේ මුදුන පොතපතේ පටන තුවල රුපමය ලක්ෂණ වරධනය වු ම්‍යම්වලින් තැනුණු අකුරු මෙන් ම, විෂා තුරු ව්‍යවත් මිනැ ම උමයෙකට කියවා ග

Figure 7: FM Abhaya designed by Pushpanada Ekaanayake is the industry standard text face for Sinhala. All the newspapers expect for one uses Abhaya as their primary text face.

Sinhala is the native script of Sri Lanka and it is used for writing Sinhala one of the two national languages of Sri Lanka. Sinhala is also used to write Buddhist literature in Pali and Sanskrit languages. The script is used by around 17 million people within Sri Lanka currently.<sup>8</sup> Sinhala is an abugida with its roots in the Brahmic script. The Sinhala Unicode block has 18 vowels, 33 consonants, 2 semivowels, 18 vowel marks (Pili/Pillam) and 1 archaic punctuation mark (Kundaliya) and two sets of archaic numerals. The consonants have an inherent vowel and absence of the inherent vowel is marked with Al-lakuna (or commonly referred in Indic script typedesign as Halant). Different vowel marks are combined with the base consonant to make syllables. These marks are added in different positions (above/below the consonant or before/after a consonant).

7. Hussain, I. (2013). Noto Sans Thaana. [Blog] <http://kodefly.com/>. Available at: <http://kodefly.com/blog/articles/101> [Accessed 30 Nov. 2015].

8. Department of Census and Statistics Sri Lanka. Population characteristic, Census of population and housing, 2001.

# ଭାରତୀୟ ଶକ୍ତି ଏବଂ ବୈରିପ୍ରଦା ମହାନ୍ତି

## නුලොන් ගේරදි: තිරයට තු

‘విషాద ప్రారంభమే నీకు లభ్యి ద్విరాయ  
అంతాడి కరణునడి తెఱసమిక్ష

**ଶ୍ରୀମତୀ ପାତ୍ନୀ କଣ୍ଠାରୀ**

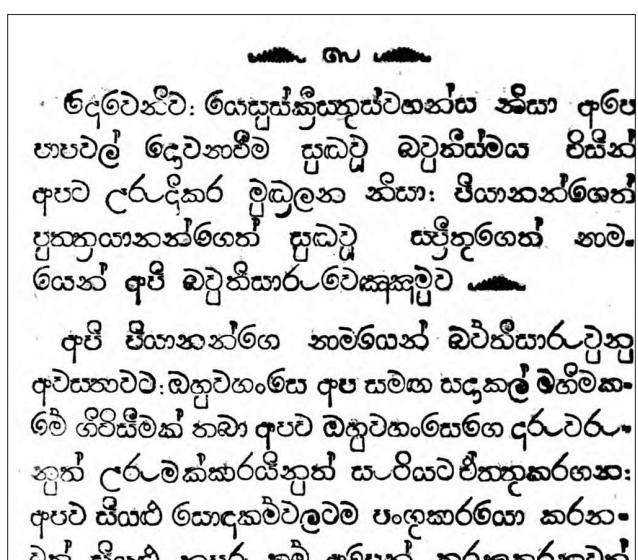


*Figure 8: Scaled type in newspapers, Lankadeepa*

Modern Sinhala is a result of nearly 2300 years of development, with earliest existent seen in the 3rd century BCE. Sinhala script is Historically Sinhala has gone through three main stages of development: linear, semi-linear and circular. Starting with early horizontal and vertical lines of the Brahmi script forms on the stone inscriptions. Semilinear forms of the script are represented in Sigiriya mirror wall inscriptions written in 8th – 10th century CE. With the Buddhist palm leaf manuscript tradition, the graphical forms of the Sinhala letters became more circular.<sup>9</sup>

Current Sinhala letterforms are dominantly formed with round smooth strokes. In general, the letterforms are wide and dense with complex strokes occurring inside the primary form. (Fig 7) It requires ample spacing for a comfortable reading experience. The height of the average reading text in Sinhala newspapers is around 4mm. Typographers are forced to increase leading, and to balance out the effect of space they often increase tracking with scaled type.<sup>10</sup> (Fig 8)

This bigger reading size is also related to the modulation of the script. The modulation structure of Sinhala is predominantly bottom heavy. Sinhala is traditionally written on a palm leaf using a metal or wood stylus and, therefore the letterforms were monolinear. The current form of the script is heavily influenced by this way of writing by Buddhist clergy, as reading and writing were not a part of the everyday lifestyle of the public. Early Sinhala types of the 18th century were monolinear as they



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24	අපහා සමගය. එවැනි යෝජිත නිශ්චල්‍ය පිබුද සාමාජික හිමිත්ත්වා දැනුම් කළාට නි ලෙසට ත්‍රිව්‍යාග්‍රහ හා යැසීව ජාව්‍යාග්‍රහ නිස දෙ කිහිද මහි රඟ
25	තේය. එහෙත් ඇයෙන් සූඳුලුව්‍ය පූඩුයා විද්‍යාත්‍යාරු බිඳු ඇද නොහැදිනෙනෙය. ත විද උක්‍යත්වයේට දේපුස් යහ නාමය තැබිය.
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2	2. පරිවේෂ. හෙරෙන්දහම් රජපුජේ කාලයෙහි පූද්‍රයේ බැංක්ලෙහෙමති ගේ පූඩුවහින්සේ උපක්‍රම පූර්විභාවේන් ගෘහුවන්ගේ යෙරුයෙලම් අධික්‍රිත දෙව්වරුන්ට රජව උපක්‍රම උක්‍යත්වයේ 14 හෙරෙන් නැයිව 15 සේයෙ ගොස් ග

**Figure 9:** Left: Singaleesch Formulier Boek behelsende vier Formulieren 1744, Colombo, P6 Right: Gospel of John in Sinhala 1868, Colombo, p5

9. Disanayaka, J. (2012). Encyclopaedia of Sinhala language and culture. [Kalubowila]: Sumirha Publishers, pp. 650-660.

10. Silumina.lk, (2015). මෙත අකුරු හොරකි කළැයී පැමිණිලි කළාම පොලිඩිය එදා අත්දමන්ද වූණ. [online] Available at: [http://www.silumina.lk/2015/11/01/\\_art.asp?fn=af1511016](http://www.silumina.lk/2015/11/01/_art.asp?fn=af1511016) [Accessed 28 Nov. 2015].



Figure 10: Left: Singaleesch Formulier Boek behelsende vier Formulieren 1744, Colombo, P6 Right: Gospel of John in Sinhala, 1868, Colombo, p5

were based on the manuscripts. Introduced in early 19th century, the current modulation structure became the standard for long-running text by the end of the 19th century. (Fig. 9) Introduction of custom modulation is a common scenario in almost all the South Indian scripts, where traditional manuscript forms were monolinear.<sup>11</sup> Although the reason for this modulation is not clear it is safe to assume that the desire to match the visual appearance of the Sinhala publication to the English publication would have been a primary interest. This modulation was developed over years as observed by Saraiva and towards mid the 20th century stroke contrast become extreme even in text faces. Since most of the distinguishable elements of Sinhala characters are in the top third of the letters,<sup>12</sup> this bottom heavy modulation is not in favour of legibility in smaller text sizes as it visually .

It is evident that Sinhala newspapers suffer from a lack of typefaces optimised to save space. A primary goal of the project is to produce a typeface that,

- consume less space & is readable in smaller sizes,
- is faithful to the established style of Sinhala newspaper type.

The Strong link between written forms and the typographic forms and user's familiarity with the commonly used Sinhala text face 'Abhaya' could be challenges in experiments of radical measure.

## Deliverables

This project will deliver a typeface family with the following variants.

### Latin

- Weights: Regular, SemiBold, Bold, ExtraBold
- Width variants: Narrow, Wide
- Styles: Italic

### Thaana:

- Weights: Regular, Bold

### Sinhala:

- Weights: Regular, Bold
- Styles: Title

## Guidelines and notes

- It is desired to have a feeling of belonging to the same

11. Citation needed

12. F. Ross. 'A design for Sri Lanka', Building Letters Three, p. 22

family in Thaana, Sinhala and Latin typefaces. But each script will be treated as separate typefaces for news publishing on their own supported language. Specifically the width of the Latin characters could be narrower and some characteristics might not be shared with Sinhala or Thaana.

- Although Arabic characters used in Thaana script text is an important aspect of the script, it will not be explored due to time constraints of this project.