



Typography and Children

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Mohalla

A Multilingual Typeface Inspired by Hand-painted street Typography

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Abstract: The progression of typographic investigations has advanced to new levels with the development of the printing press and printing technologies. We have made significant progress in our exploration of type, which has always been a fantastic medium for connecting with people in the simplest way possible.

Although we have advanced significantly in this digital age, we haven't yet fully explored the regional Indian typeface (Devanagari) in modern digital media. This is due to a lack of technical development at the local level. However, because of how far we have come as a species, it is now imperative that we apply the knowledge we have obtained from studying the hand-painted typeface to digital media.

The goal of this project is to create a variable typeface that can be used for both body and display text depending on the situation and is influenced by hand-painted type.

After analyzing the available digital display typefaces in much more detail, it was found that there was a significant lack of compressed typefaces. Taking it into consideration, the typeface was designed to be compressed, occupy less space, and be legible.

Keywords: *Hand-painted signs, Devanagari Typeface, Multilingual typeface, Compressed Typeface, 35 days of Gurumukhi.*

1. Introduction

We are surrounded by type, but there is less improvement in the ways that we practice Indic digital typography. Very few people work with Indic typeface for the local context. The study involves collecting the data and studying it from the local artists, finding the required set and styles of type for the development of the digital Devanagari type, and working on it. The major objective of this project is to create the style of type that is missing in the existing available font style and is much needed to fulfill the requirements.

Studying the hand-painted typefaces and finding a suitable typeface from the existing digital typeface, which is missing and in need of an update, is the major aim of the project.

2. Classifications

2.1 Basic Devanagari Classification

Basic Devanagari script is majorly divided into 2 different types, vowels, and consonants

अ [a]	आ [aa]	इ [e]	ई [i]	उ [u]	ऊ [oo]	ए [a]	ऐ [ae]	ओ [o]	औ [ao]
अं [am]	अः [a:]	ऋ [ri]	ॠ [rr]						

Vowels

क [k]	ख [kha]	ग [g]	घ [gha]	ङ [nga]	च [ca]	छ [chha]	ज [ja]	झ [jha]	ञ [nya]
ट [ta]	ठ [thh]	ड [da]	ढ [dha]	ण [n]	त [t]	थ [tha]	द [d]	ध [dha]	न [na]
प [p]	फ [fa]	ब [b]	भ [bha]	म [ma]	य [y]	र [r]	ल [la]	व [v]	श [sha]
ष [shha]	स [sa]	ह [ha]							

Consonants

2.2 Classification Based on Form

The script can be further divided based on the shape and structure of the glyphs.

अ	आ	उ	ऊ	ऑ	ओ	औ	ग	न	म	भ
ए	ऐ						प	ण	फ	ष
इ	ई	ड	झ	ड			ट	ठ	ढ	
घ	छ	ध					क	ब	व	
च	ज	ञ					ह	द		
य	र	स	ख	थ	श		त	ल		
							ळ	ऋ		

2.3 Classification Based on the Position of Kānā.

Devanagari glyphs have been classified in various ways, one of which is based on the position of kanas.

GRAPHIC CLASSIFICATION OF DEVANAGARI

125. The vowels and consonants can be classified graphically under five groups based on the position of the *Kānā* or the verti-bar :

Table 35 : Graphic Classification of Devanagari Varnas

	<i>Vowels</i>	<i>Consonants</i>	
Group 1	letters with full verti-bar attached (अंत्यदंडयुक्त)	20	
	अ	ख घ च ज झ त थ ध न प ब्र भ म य व ष स क्ष ज्ञ	
Group 2	letters with full verti-bar detached (अंत्यदंडयुक्त)	3	
	ग ण श		
Group 3	letters with a short-bar (अल्पदंडयुक्त)	14	
	उ ऊ लृ लृ ड छ ट ठ डढ द ल ह ळ		
Group 4	letters with a central-bar (मध्यदंडयुक्त)	4	
	ऋ ऋ क फ		
Group 5	letter without a bar (दंडरहित)	1	
	र		

Fig.1: Classification of Devanagari based on kana

2.4 Classification Based on writing style

The Devanagari writing style is classified based on the strokes drawn, the tools with which they are drawn, and the basic shape of the letters. The following figure shows categorization based on both factors.

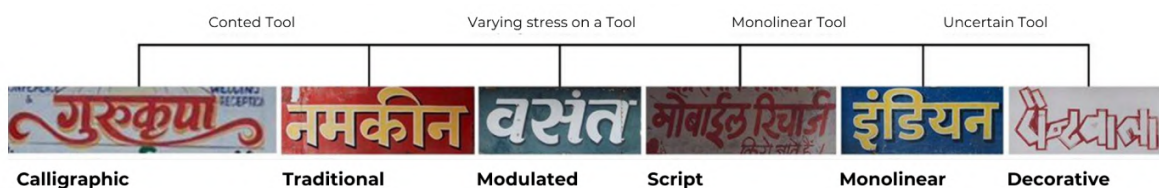


Fig.2: Classification of Devanagari writing style

2.5 Classification based on shape.



Fig.3: Classification of Devanagari based on tool style and shape (self-captured).

3. The Type Walk and collecting street art

Started by exploring and collecting images of different street art to study the different styles, techniques, and colors used to create the art.



Fig.4: Street typographic art (self-captured)

Creating a color chart to be used as a template

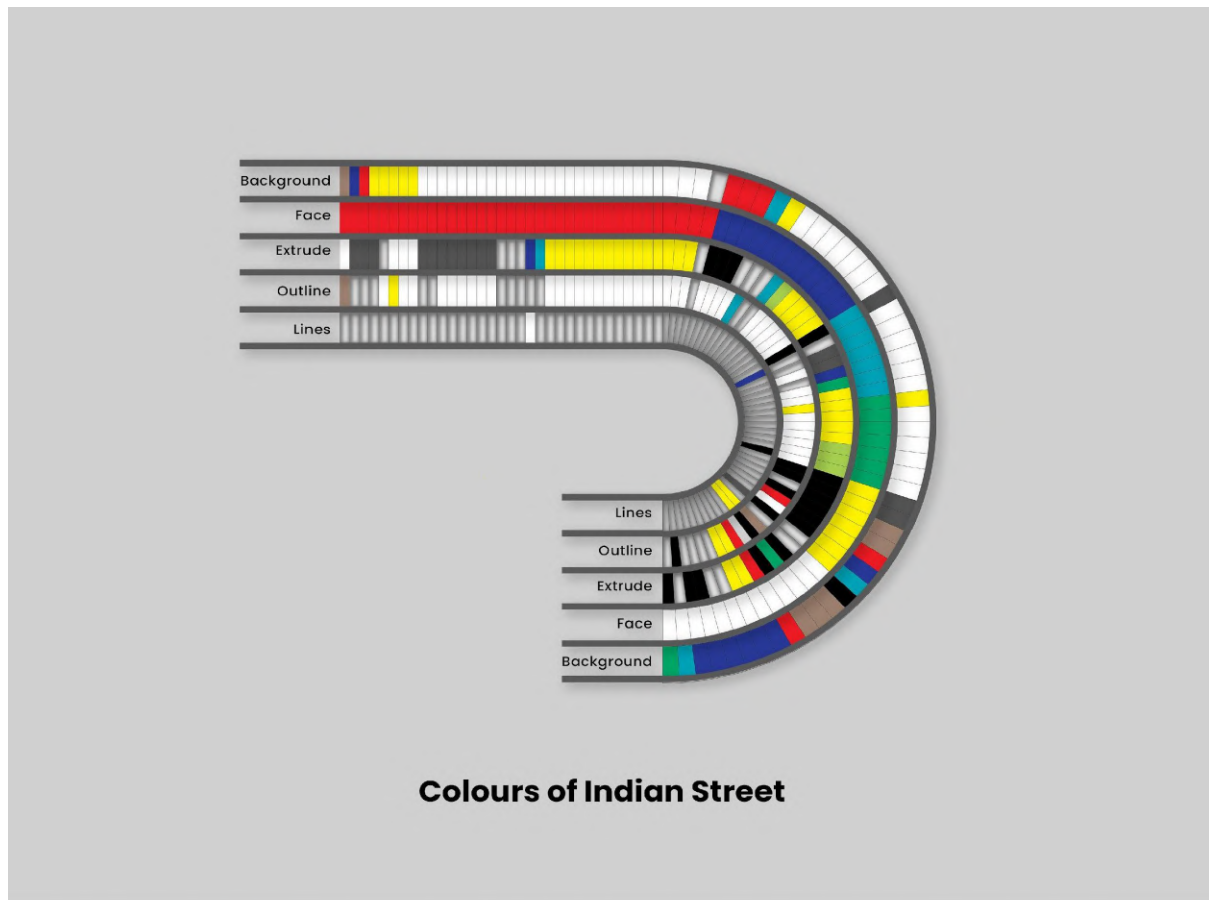


Fig.5: Data Visualization of the Most Used ColorsStreet typographic art (self-captured)

4. Studying the collected street art

Taking the study forward, the basic structure of the letterforms was studied to understand the basic geometric construction of the handwritten art style. The signs were vectorized in black and created a silhouette, which helped in studying them better.

FAIR PRICE MEDICAL STORES
फेअर प्राइस मेडिकल स्टोर्स
निगमकी केमिस्ट्री अंड इमेजिस्ट नमस्कर

ज्योति मेडीकल
स्टोर्स

श्री नारायण भंडार

यहाँ सभी कंपनियों के
मोबाइल रिचार्ज
किये जाते हैं!

FANCY FANCY COLLECTION
डांसी, फॅन्सी कलेक्शन
डांस, ड्रामा व फॅन्सी ड्रेस
के कपडे व आभुषण
किराये पर मिलते हैं।

जगदीशप्रसाद शंकरलाल अग्रवाल
हार्डवेअर पेंट्स अंड जनरल मर्चन्डिस
मेल रोड, सिलानवी, नान्दपुर-१९.

फ्रेंड्स ग्राहक

वसंत मॅचिंग सेंटर

परिख भोधीलाल जीवतभाई

अनंत श्री
गेस्ट
ठहरे

ताला
चाबीवाला

स्कुल ड्रेसवाला
इंडियन एक्सप्रेस

Fig.6: Basic geometric construction of the handwritten art style.

5. Selecting the style

5.1 Studying the existing Devanagari Fonts

Moving forward, after studying, it was discovered that the currently unavailable font styles in the digital space are desperately needed. So I studied the available Devanagari fonts at Adobe Fonts, Google Fonts, and ITF.

Adobe Fonts

No. of Devanagari fonts available. (10)

02 Serif fonts

06 San serif

00 Display

01 Script

01 Monospace

00 Compressed/Condensed

Google Fonts

No. of Devanagari fonts available. (48)

02 Serif fonts

24 San serif

00 Display

01 Script

01 Monospace

01 Compressed/Condensed

अंतरिक्ष यान से दूर
नीचे पृथ्वी शानदार ढंग
से जगमगा रही थी ।

Teko

ITF

No. of Devanagari fonts available. (13)

03 Serif fonts

07 San serif

02 Display

01 Script

00 Monospace

02 Compressed/Condensed

अखंड देवनागरी

Akhand Devanagari

डायरेक्टर देवनागरी

Director Devanagari

5.2 Comparing with selected Fonts

Comparing the chosen style of font with available compressed fonts and other popular fonts.

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

Teko

Akhand

Director

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

जगदीशप्रसाद शंकरलाल अग्रवाल

Baloo 2

Noto Sans

Poppins

Sarpanch

5.3 Finalizing the Style

It was found that there are very few condensed fonts available (three) from the studied fonts. And there is a need for a style of font that is condensed and organic in nature. So I selected a style that I found organic in style, compressed, and had a well-designed design language.



जगदीशप्रसाद शंकरलाल अग्रवाल
हार्डवेअर पेंट्स अँड जनरल मर्चन्ट्स
मेन रोड, सिताबर्डी, नागपुर-१२.

जगदीशप्रसाद शंकरलाल अग्रवाल

Fig.7: Selected style.

6. Design Development

The simple linear design process to design a typeface started with creating a grid for glyphs and finalizing the proportions for glyphs, which are derived from the finalized design language. Moving forward, I analyzed the available fonts from the selected artwork, tried matching the design language, and worked on the hand-painted glyphs. After scanning the hand-painted glyphs, I digitalized them, and the tools I used were Illustrator and glyphs. Many corrections and iterations occur after testing the first draft, and glyphs are still in the testing and improvement phase.

6.1 Finalizing on characteristics of typefaces

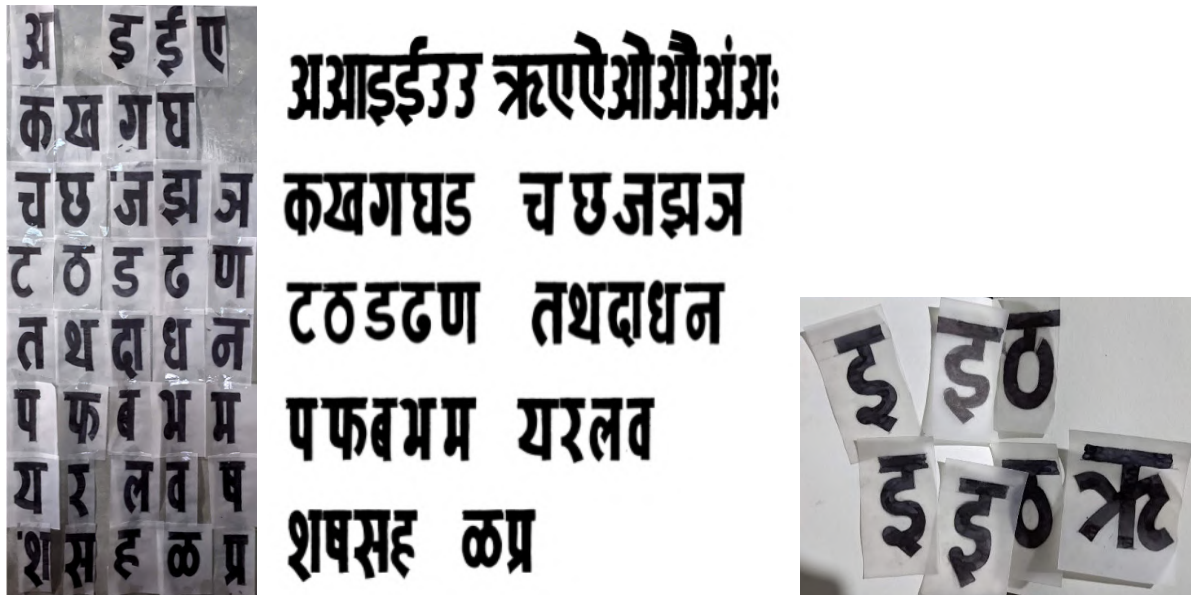


Fig.8: Hand explorations.

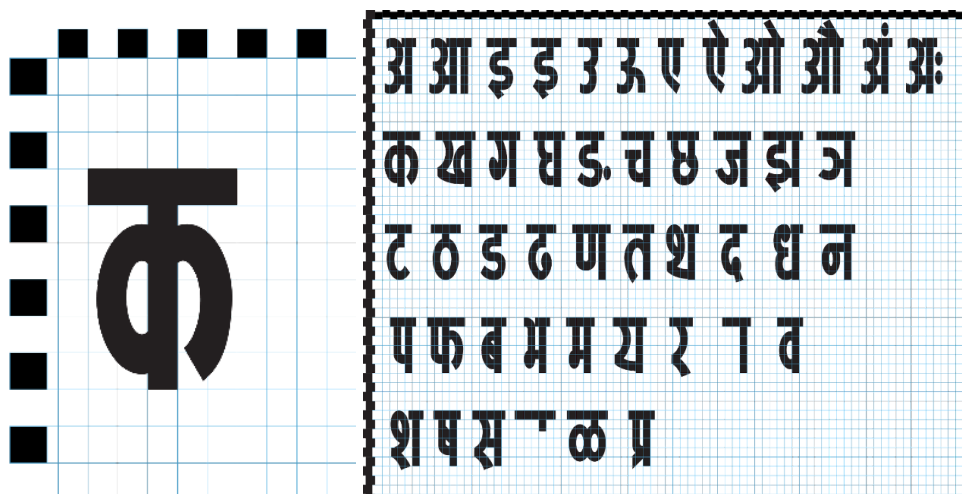


Fig.9: Studying the Prints and Proportions.
9

6.2 Developing the visual language

In order to make the typeface accessible and useful and to cater to a large user group, it was important to make each glyph look more consistent and visually similar to each other. In order to maintain that visual language, the visual properties of each part of the glyph were finalized and followed throughout.

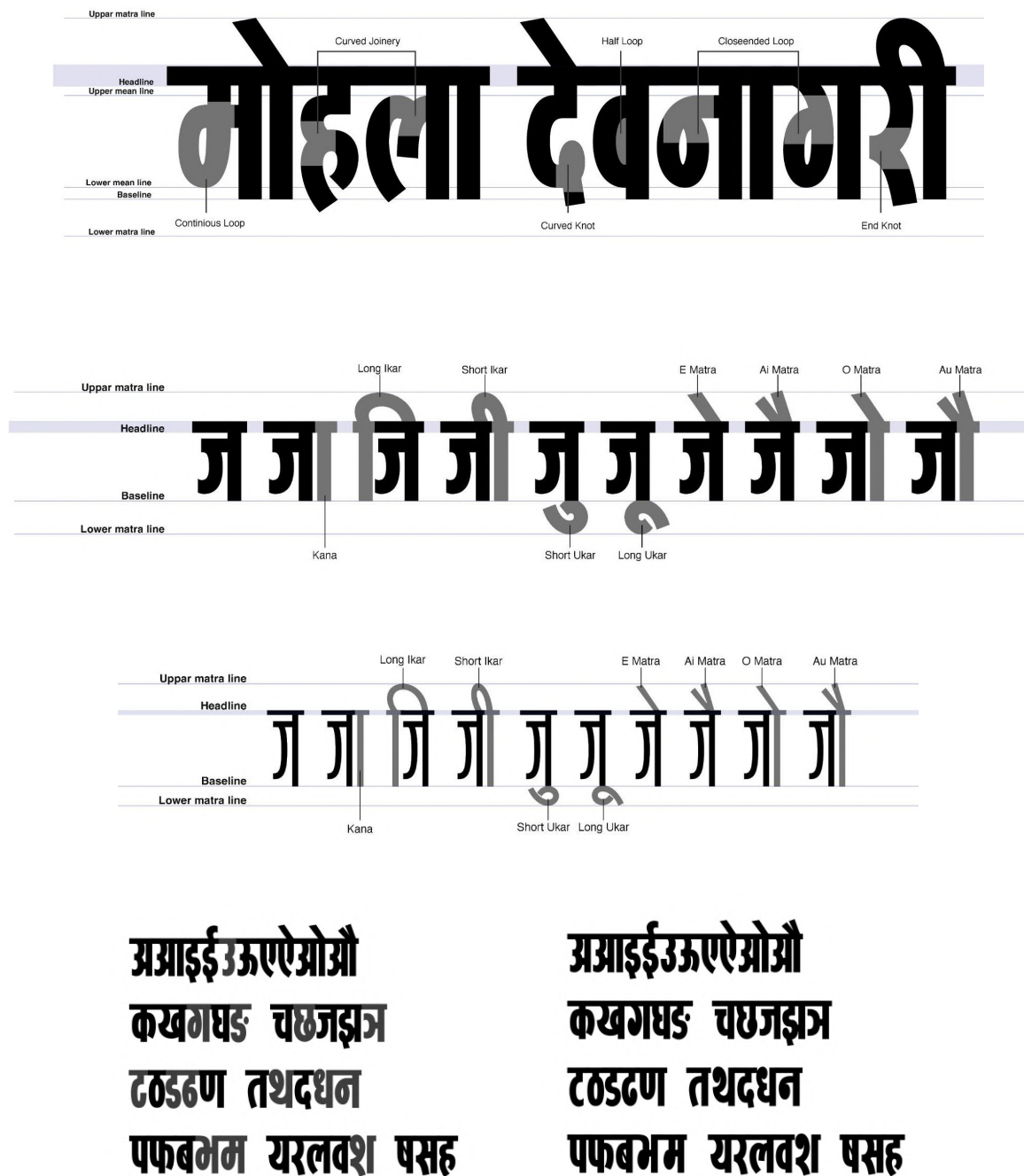
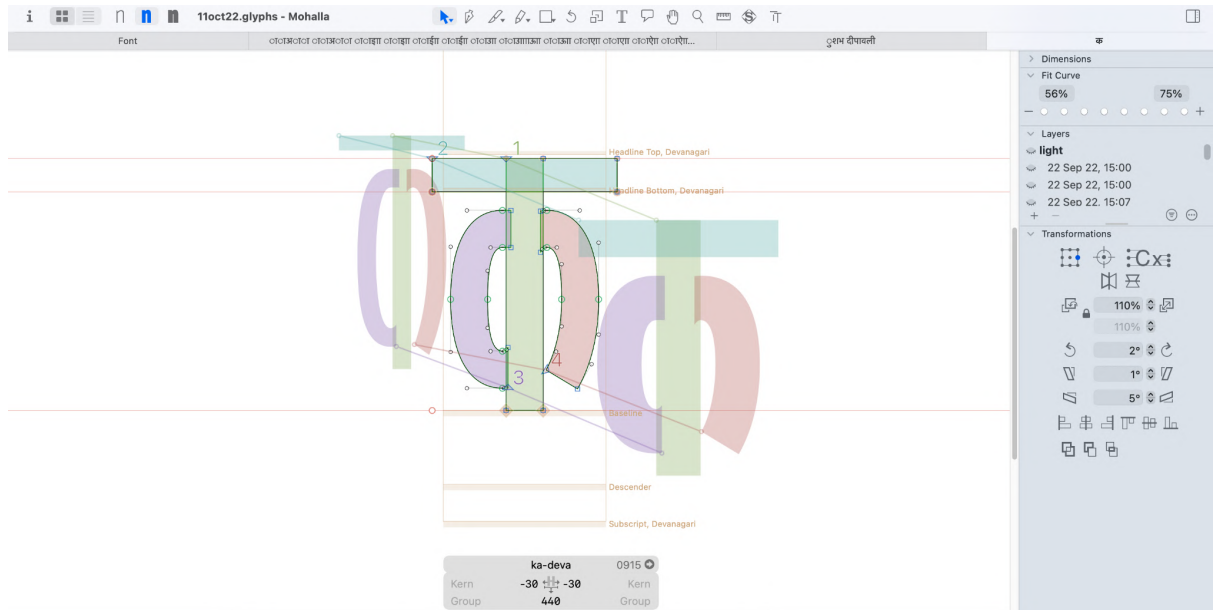


Fig.10: The finalized properties.

6.3 Making it a variable font

There are numerous benefits to this technology. A variable font is a single binary with greatly reduced comparable file sizes and, hence, a smaller disc footprint and web font bandwidth. This means more efficient packaging of embedded fonts and faster delivery and loading of web fonts.



आआ इइ ईई उउ ऊऊ ए ऐ ओओ औऔ
कक खख गग घघ ङङ चच छछ जज झझ
टट ठठ डड ढढ णण तत थथ दद धध नन
पप फफ बब भभ मम यय रर लल वव
शश षष सस हह

Fig.11: Developing the variable glyphs.

मतदान से दूर रहकर भारत कया बोला

नेपाल भूदान और बांगलादेश ने पकड़ी भारत से राह रस और यूक्रेन के जारी यदुध बीच यूएनजीए मे के खलिफ पारति एक निदा परताव मे भारत के और यूक्रेन का यदुध लमातार जारी है

खदु कति देव जकर यद से गृपी बरकर कर रकर उतरासक मे जमन सिनगर जिले मे कुडा शने के गाव भरतपुर पदुव गवा गृपी पुसिर की टीम मे पीछा कते भरतपुर पदुव कई बेसी गोन के राजकुमार मे बताव कि नाफती जकर भरतपुर मे अग्रा नेता मताम सिंह के फारम सगर पर जकर छपु गवा गकुदवाग शने से भरतपुर की दूरी समुकलि जिनी है ताव कपसे मे गलुवर केम सगर मे पुते शे पुसिरकते

पंजिदि समय शतियक और दनयक लना हजु है फोन कल था इमेल के नासयम से कई नताम सूचना मिलेगी और आपका कोई कार्य केतरीन तरीके से सानन मे लेना मेरिडे साथ मे विशिष नदुदे पर विपर विकस लेमे केमेवि पर और कान के बीच तालमेल बनाकर रखने मे विककत हेमी दरस के कार्य मे मे कदु यके समय दसतीत से आपका रतिक परसति के कार्य से दूर रहे दना आपके कई महत्वपूर्ण कार्य बीच मे इठ सकते है किते रखी के साथ रहन मे ला फ

Fig.12: Studying the texture and negative spaces of glyphs.

7. #35daysofgurumukhi

Following the similar visual language of the selected style, I went forward to create glyphs for Gurumukhi for the design challenge (on Instagram), in which I followed the chromatic style inspired by street typographic art.



Fig.13: Glyphs for 35 days of gurumukhi.

8. Mohalla: A multilingual Typeface

As the name suggests, a multilingual typeface is something that supports a variety of different scripts that can be used to write various different languages. In this project, the intent is to develop a font supporting the major Indic scripts.

ABCDEF GHIJKLMN aabcdefghijklmnop
OPQRST UVWXYZ opqrstuvwxyz

मनु वै मयि मगल ते विसम ॥

अआइईउऊएऐओऔ
कखगघङ चछजझञ
टठडढण तथदधन
पफबभम यरलवश षसह

Fig.14: Making Mohalla a multilingual typeface.

9. Usecases (mockups).

The designed typeface can be used for various different uses; as of now, these mockups were developed during the first draft and were designed primarily for use as a display typeface.



Way Forward

The project has a large scope that needs to be completed. After designing the basic weights of the condensed font, the project can be taken forward to create different variations in weights. Even the variations in width can be considered. Taking forward the scope of working with different Indian scripts is also something that I am aiming for.

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