Typography and Diversity
http://www.typoday.in

छापा- Devanagari Stencil Typeface

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Abstract: The literal meaning of छापा (Chhapaa) is 'Print' or 'Impression'. If the same content has to be printed over and over again on different places or surfaces, the easiest method is to make stencil of that content. This method has been in use traditionally since long back.

In India, especially in Mumbai, though the technology has developed, traditional method of using stencil to write public notices is still in use by government or municipal corporations. It is mainly written in Roman and Devanagari script as Devanagari is predominantly used in Mumbai. There are around 100 roman stencil fonts available digitally but sadly not a single Devanagari. Therefore, the fonts which are not meant for stencil are also used due to the unavailability of fonts.

Hence, 'छापा' is an attempt at creating a typeface which is designed especially for use of stencil and to standardize the random usage of fonts.

Key words: Devanagari, Stencil typeface, Indic scripts, Type design, Calligraphy, print, impression.

1. Introduction

The major aspect of this paper is to find a definite solution to standardize the random, vernacular and Indic Typography that is used in transport system as well as on public places in Maharashtra. The places which tend to use hand painted signs (transport system and public places) because of lack of required technology, poor financial condition and lack of proper design awareness can use stencil. It can be used as a digital typeface and also as a physical stencil depending on the requirement. The aim is also to come up with a typeface which can carry a certain flavor of the place and traditional beauty of the script.

This paper will conclude the following points:

1. Existing scenario regarding the use of stencil to write notices
2. Need of छापा for standardizing the random usage of fonts
3. How it works and the possible applications in various aspects.

2.1 Observation of current scenario

Mumbai, as we know, is the City of Dreams. The population of the city is around 22 million. Out of which more than half people travel daily up-down to their workplaces. The number of passengers travelling by public transports like Local train, public buses, autos etc. is very large.

All these transport vehicles have notices written on their inside as well as outside walls. As Marathi is the vernacular language of Mumbai, all notices are predominantly written in Marathi and also in English or Hindi wherever required.

While travelling by public (BEST) bus, it was found, there is no standard type used for all the notices. In a single bus 2-3 different fonts were seen for the same notice. After looking at the following visual, the 1st thing came into mind was, 'Why **3 different fonts** for the **same content** at the **same place**?' And here the need of standardizing a single font was found.

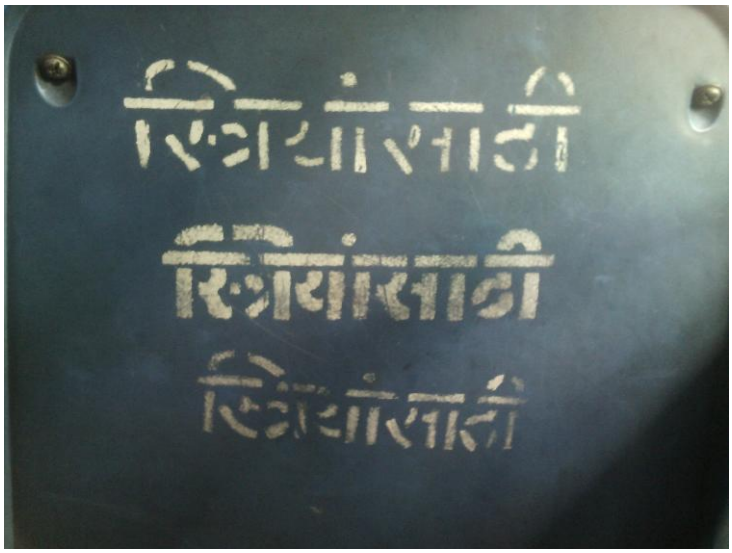

Figure 1: Issues found on the current local bus

Even though 3 fonts were used, none of them was found to be perfect or ideal. Because of the spacing issues the identity of some letters has gone which has resulted into the readability and legibility issues.

And this is how the awareness of typography in social aspect was taken as the subject of this project.

2.2 Initial research

Before designing a complete new typeface for Stencil, it was necessary to study the process of existing notice boards and stencils used. The survey started from public bus depot. The whole painting department of that depot was introduced by the respective department head.

After research, it was found that every BEST bus has a bus number and Destination written on the front and either side of the bus. Each bus arrives and departs from a certain depot. And there are around 50 depots in all over Mumbai.

The notices on each bus are painted or printed in their respective bus depots but the source of all notice boards is single. The numbers and destinations are screen printed on the clothes. All the screens are made and available at head department and then printed clothes are distributed to the depots all over Mumbai.

Figure 2: screens of bus number and destination

Figure 3: screen printing on cloth

Along with the screen printing, some printed silver stickers were also found as we see technology is developing. This readymade stickers is also an easy method. But it cannot be

stuck on the uneven surfaces of seats. Also the printing quality on stickers is not good enough to last long.

Figure 4: Silver stickers

In some cases, if the screens or stickers are not available, instant stencils are made

Figure 5: Stencils made instantly in emergency cases

2.3 Need of Stencil Font

Practically thinking, stickers and screen prints are any time way better solution than using stencils, but these two methods cannot be applied on the rough and uneven surfaces. Whereas most of the seats and walls of the buses are uneven and rough. So the traditional method of using stencil is the only solution for better result.

While studying the process of making stencil, it is found that earlier the base lettering for stencil was hand painted. Now as the technology has developed, they use text font/s to write notices and fit them in given size by randomly adjusting the height, width and size of the font. Then it is been printed on an oil paper. By taking into consideration the issues of stencil, the deliberate cuts are marked on that sheet. Workers cut the sheet manually and make the final stencil out of that brown oil paper. The reason of taking paper for stencil is, because it can be wrapped over any uneven surface. When the department head was asked about the font used for stencil, he was totally unaware about it. The only thing matters him is to make the stencil of that printed sheet. Those printed sheets are distributed to all over the Mumbai depots and then stencils are made out of it in

respective depots. While cutting the stencil manually, many times it gets wasted. So it was necessary to give the solution for fine cutting along with the font.

Figure 6: Current font used for printing the notices and then to make stencil out of it.

3.1 Starting with type designing

After studying and researching in detail, it was found that there is no standardize method or a font available for stencil. Random fonts are used and even the cuts are given without thinking about the shape and identity of the letterform. It was the main reason why readability issue happens in such notices.

Therefore **छापा** is an attempt to make a standard font available for stencil. Initially both mono linear and calligraphic letterforms were used as a base font. For mono linear style Ek Mukta was taken as a base font whereas for calligraphic style letters from Devanagari calligraphy manual were taken as a base font. The cuts and bridges were decided deliberately.

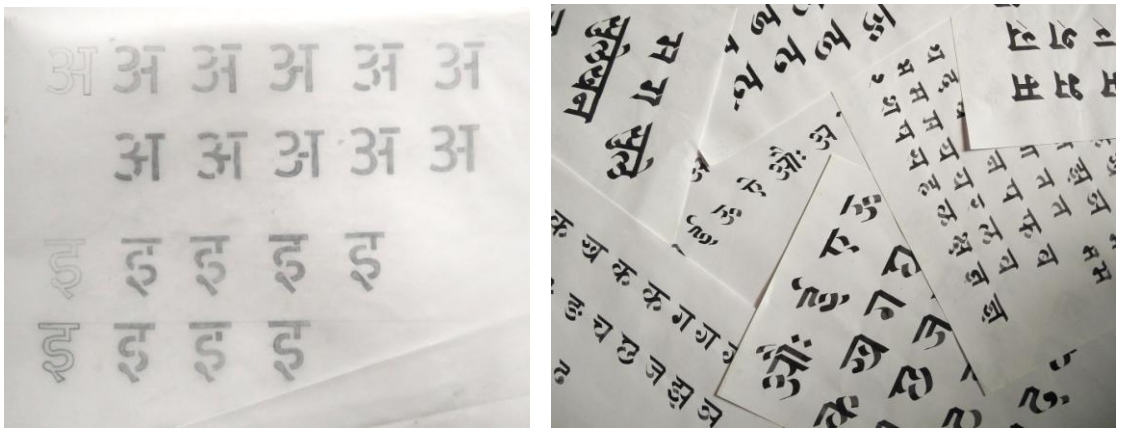

Figure 7: Initial exploration of both mono linear and calligraphic letterforms done manually

Eventually the calligraphic letter style was finalized by taking into consideration the aesthetic and tradition value of the Devanagari script. Initially the letters were hand drawn and then traced digitally.

3.2 Formation of letter

Starting with the letter formation, it was necessary to decide where the cuts and bridges should be given. As the calligraphic letterform has contrast of thick and thin stroke in a single letter, the bridges were decided to give deliberately on thin strokes. So that even if the thin stroke gets omitted, it will appear as a continuous stroke from the distance which will not affect readability.

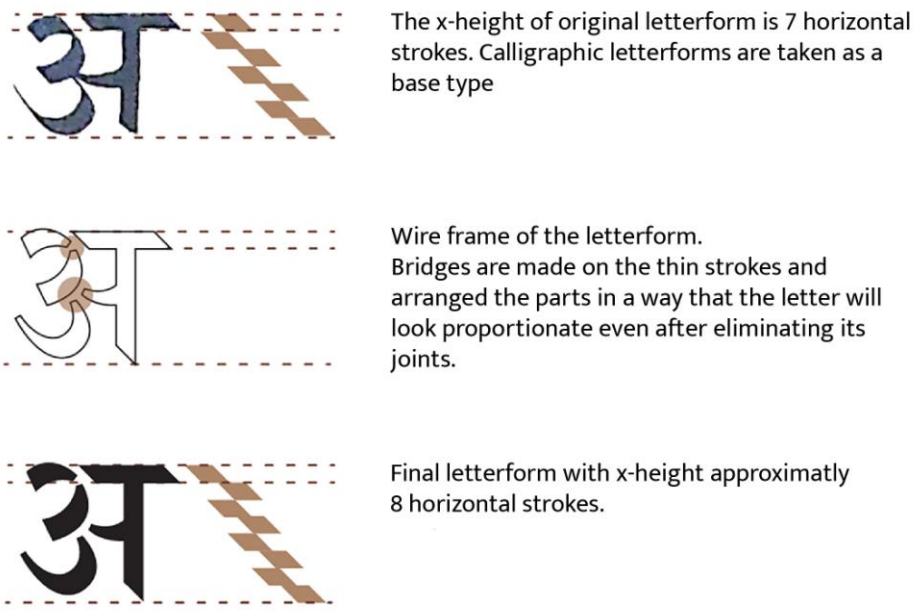

Figure 8: Structure of letter अ

Figure 9: Similarly the other letterforms are designed with the deliberate cuts made on the thin strokes.

3.3 Proposed visual solution

After working on the structure and construction of each letterform all the letters were balanced equally. And finally along with the set of vowels and consonants, the sets of digits as well as matras were designed.

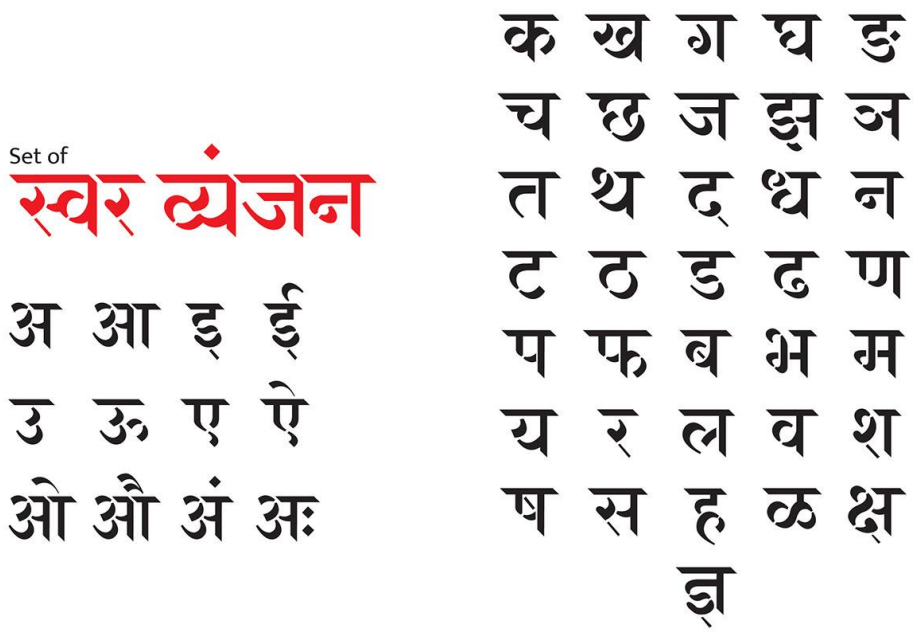

Figure 10: Set of vowels and consonants

Figure 11: Set of numerical and matras

After designing the whole set of glyphs the anatomy, terminology as well as the reducing and enlarging possibilities of the typeface were decided.

Figure 12: Anatomy and terminology

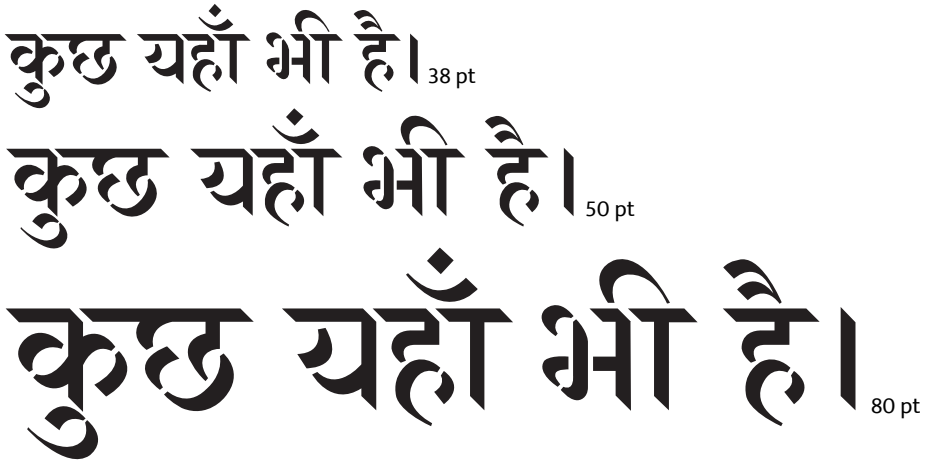

Figure 13: Enlarging and reduction possibility

4.1 Material Solution

Ideally material used for Stencil should be long lasting as there are very delicate bridges made in between letters and words. Hence the metal stencils are preferable. But when survey was done in BEST depot, it was found that the surfaces of inside walls of buses are not plain, so hard material cannot be used as a stencil. They use hard paper but it doesn't have enough life. Hence the TYVEK paper was suggested which is thin, easy to wrap over

any uneven surface as well as non-tearing. Cutting this paper is also easier compared to metal or hard paper sheet. This paper will be the best solution to make stencil.

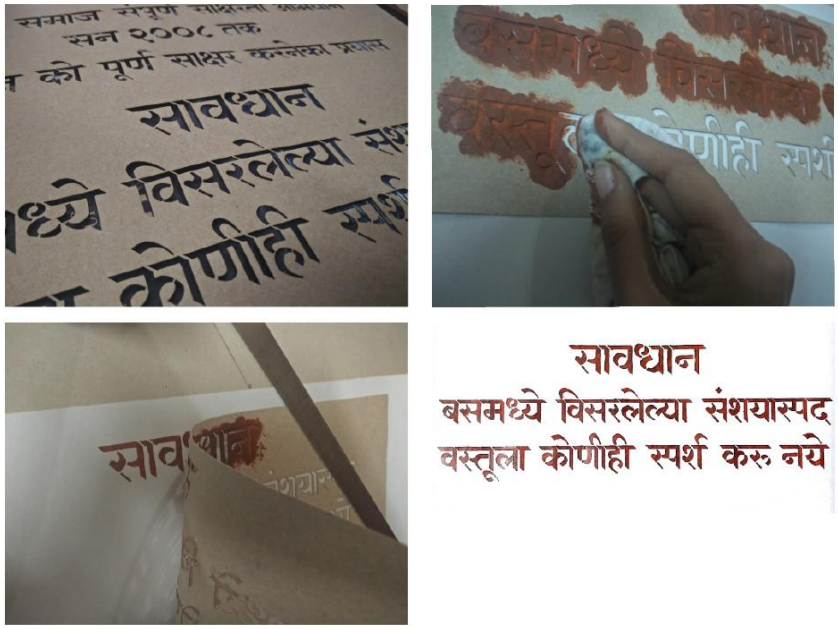

Figure 14: Process of application with actual stencil

4.2 Possible applications of the visual solution

Figure 15: Existing stencil letterforms on BEST bus

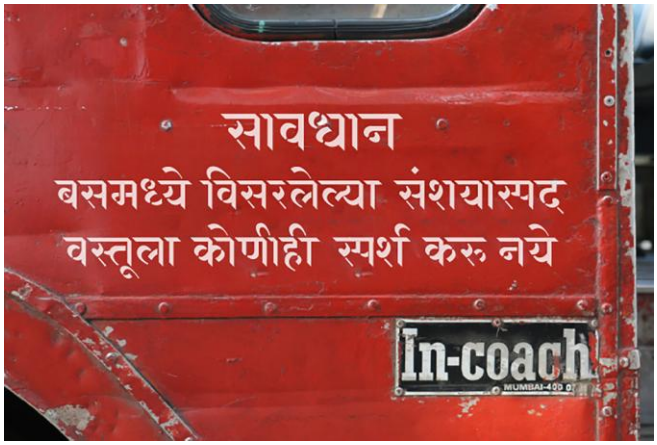

Figure 16: Proposed stencil typeface

Figure 17: Existing stencil letterforms on public wall

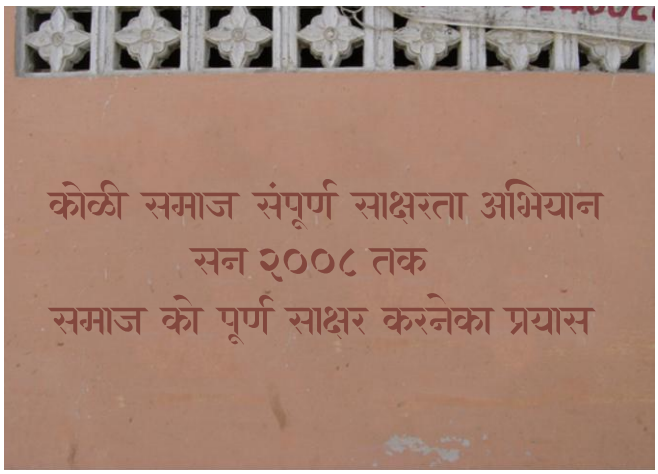

Figure 18: Proposed stencil typeface

Figure 19: Application of **छापा** on milestone

Figure 20: Application of **छापा** on public walls

5. Conclusion

As stencils are used predominantly in the transport system of Mumbai such as local trains, BEST buses, ST etc. it is expected to use this typeface all over. If the single typeface will be seen used wherever the stencils are used, there will be the uniformness and standardization. At the current situation the typeface used for stencil is so inappropriate that even the literate cannot read it sometimes. Here **छापा** has tried to solve that readability issue. The transports and public places where stencils are used, all come under the same government still there is no standardization hence it is expected to think from the fine typographic point of view and use this single typeface all over to create the uniform identity of the city.

Acknowledgement

Santosh Kshirsagar (Dean, Sir J. J. Institute of Applied Art, Mumbai)

Ashok Mestry (Head, Painting department, Dadar BEST depot)

Ravindra Kale (Chief executive Engineer, Dadar BEST depot)

Shreyas Surve (Advertising photographer)

Kanchan Gokhle

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Google images