



Report on
Summer Internship
Constructive Approach of Devanagari Calligraphy

under the guidance of

Shri Achyut Palav
Calligrapher & Designer

Duration
May 10th to June 29th, 2013

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Visual Communication
Roll No 1262540011



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Acknowledgments

First, I would like to thank to Prof Srikumar for taking initiative to introduce me to Shri Palav and also thankful to Prof. Mandar Rane and Prof. Balan for approving my topic for summer internship. I learnt a lot about Devanagari script during this internship programme and I'm really thankful for that.

Then, I could not have done this work without the lots of help and valuable suggestion I received cheerfully from Shri Achyut Palav .The work culture in "Achyut Palav's School of Calligraphy (APSC)" is really motivates to do more and more work in Calligraphy. Everybody is such a friendly and cheerful companion here that work stress is never comes in way. The true meaning of this internship revealed itself to me through his demonstrations. My whole attitude towards Devanagari letters changed since that first day of my internship by seeing his demonstrations. It made me aware of the difference between "normal" and "good" calligraphy. It was then that I noticed the individual beauty and accuracy of the vertical, horizontal, angular lines and their continuity, which are all integral parts of the letters.

Finally, I also want to thank all the APSC's (Achyut Palav's School of Calligraphy) students whom I met during those two months. They all received me with great kindness.

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Preface

This report document the study of constructive approach of Devanagari calligraphy done during the summer Internship under the guidance of Calligrapher Shri Achyut Palav sir, at his "Achyut Palav School of Calligraphy" (APSC) and Calligraphy Studio at CBD, Belapur, Navi Mumbai. The report gives an overview of the tasks completed during the period of internship with technical details of Devanagari Alphabets. Then the results obtained shall be discussed and analysed. Report also elaborate on the future works which can be persuaded as an advancement of the current design research project.

The Soul objective of this internship is to understand 'How to learn systematically Calligraphic style of Devanagari script'. This internship is focused basic of constructive Devanagari script as a case study. It is observed that Devanagari is interestingly complex but very well defined script. Learning basic Devanagari Calligraphy gives ones a higher level of understanding of Devanagari Alphabets.

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Master, a Guru

Shri Achyut Palav
a calligrapher par excellence,

“Urja”

The Calligraphic movement was initiated by Achyut Palav that pledged to bring Calligraphy to Indian homes. In this digital-age when man-made beauty is replaced with artificial, revival of ancient art is necessary. The calligraphic movement is campaigning through various workshops, seminars and events to promote calligraphy, the ancient art of writing, to unleash creativity and innovative thinking in the modern world.

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Abstract

The report presents the understanding constructive approach of Devanagari Calligraphy, basic fundas of the script, proportion and character of the alphabets, such tasks completed during summer internship. Devanagari Calligraphy is highly appreciated in the history of writing. Imitating historical handwriting is a wide, well-lit highway to calligraphic success. Learning historical hands is a method of training the hand and eye, rather than a final destination in calligraphy.

I tried to understand of the writing sequence of Devanagari calligraphy, analysis of Devanagari letter design. The graphic scrutiny of the Devanagari letters will bring out important aspects of the letter design.

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Introduction

As a first year students of Visual Communication at the Industrial Design Centre, IIT Bombay, I was brought to do an end of study training. I choose to do this internship under Shri Achyut Palav Sir, (Internationally well-known Indian Calligrapher) for understanding constructive approach of Devanagari Calligraphy because I wanted to learn more in this field.

This training took place from the 10 of May 2013 to the 29th of June 2013 in the Achyut Palav`s School of Calligraphy at Vashi, Navi Mumbai and his Calligraphy Studio at CBD Belapur, Navi Mumbai.

Weekly Schedule

During this internship period I took several lessons and demonstrations from Shri Palav sir, I fill I am the luckiest one who trained by the eminent expert. Being his busy schedule Sir used to spend lot of time with me for demonstrations as well as discussions on Devanagari calligraphy.

Sometimes I use to go to his Calligraphy Studio at Belapur or at his School of Calligraphy at Vashi, Navi Mumbai.

I feel whatever I done so far is just a tiny drop of a deep shoreless ocean. This **knowledge continues to give a special meaning to my quest in Calligraphy.**

Origin of Devanagari Script

The word “Devanagari” came from the original word ‘Devam Nagaram’(City of Gods). It was used in the form of triangle and squares in which the symbols of Gods or Goddesses were drawn.

The Devanagari Script was standardised for writing Sanskrit which was Dev-Vani, (the language of God). Barakhadi is in fact a handy device to coin syllables and one of the most ingenious in the history of writing. Devanagari alphabet consists of thirty-four consonants and fourteen vowels. In addition, there are two modifiers (vowels) and two consonants compounds.

Devanagari Calligraphy

Traditionally, Devanagari script is written with reed or bamboo pen. The bamboo pen is cut broad and resembles a quill pen but differ a little, in that the point cut to slant in the opposite direction of Roman calligraphy pen. Recently many branded calligraphy pens also available in the market as per choice.

The angle of the pen point to the horizontal guide line , is kept at 45° and it is not changed while writing horizontal. Vertical, curved or rounded strokes. The distinguishing part of the Devanagari letter is usually left side followed by vertical-bar.

Writing Material

The Indian scripts have undergone many changes in the design of the characteristics of alphabet due to verity of writing materials in used, such as rocks, pillars, gold plates, silver plates, copper plates, palm leaves and cloths. Also lot of evidence are available of use of stone and metal for engraving. Rock was the principal writing material in used in ancient India.

In ancient India the material for writing documents or literary composition or scriptures consisted were two types. The first was more common in use and is clear origin. It consisted of Palm -leaves, tadapatra, it was common is south India where palm trees grow. The second was

burja-patra, common in north. In both the cases boru and reed pen was the main writing tool.

But now technology has gifted a lot to us, we have good quality of papers in unlimited ranges, inks, writing materials such as markers, calligraphy pens, quill pens and many more.



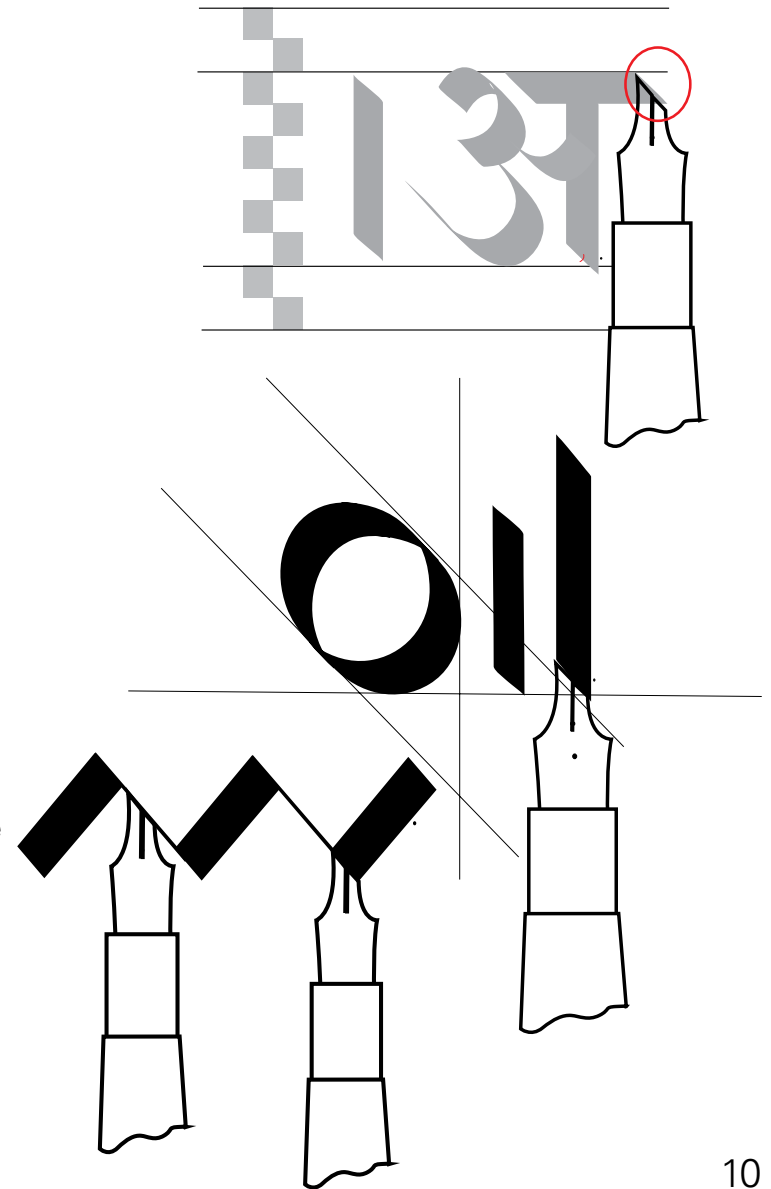
Photo source; <http://www.smashingmagazine.com/>

Pen Angle

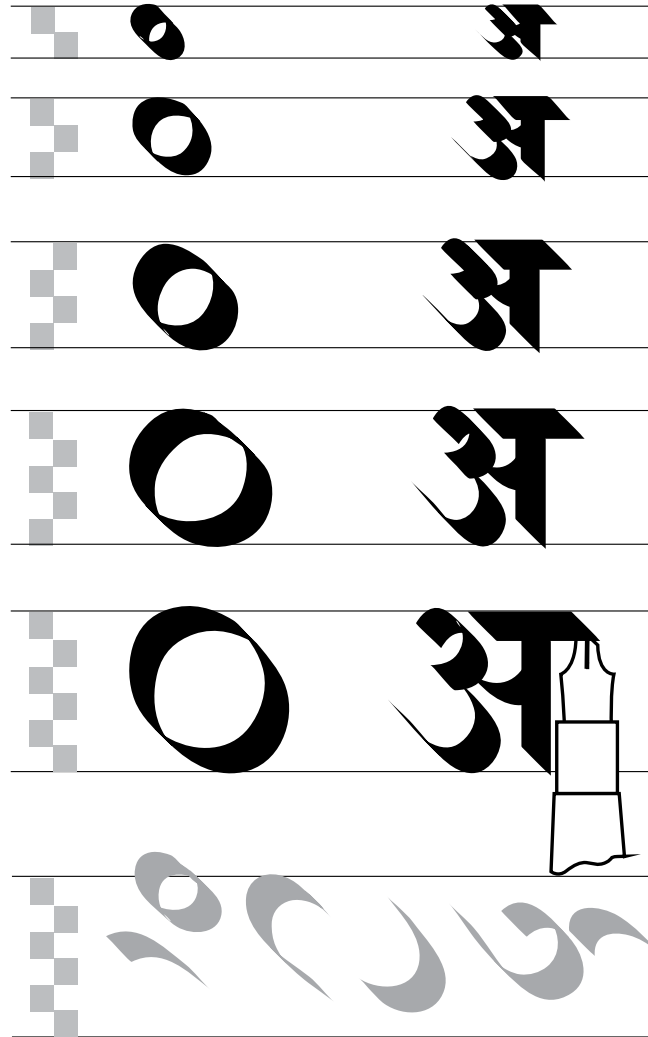
Any broad edge pen should help you to get clear understanding of the pen angle. As beginner, one should understand thick and thin stroke of the pen while putting on the paper surface. To get the write pressure, when we put our nib to paper, hold pen comfortably, as well as the pressure we put on the paper, if you press too hard you will get a distorted width of the nib, if you press too light you will get ragged edges.

To get ink flow evenly, do it slow, conscious and clear, very crisp lines thick or thin, the nib is making sharp edged strokes, you are in the zone, enjoy the fun and know there is growth at every effort.

While doing basic exercise always remember the 45 degree pen angle is half way between 0 and 90, if you cut a right angle in half, place your nib parallel to that diagonal line, if you pull the nib down towards your body, the weight of this line will be equal to the weight of your horizontal line, that you pull from left to right,



Pen Width

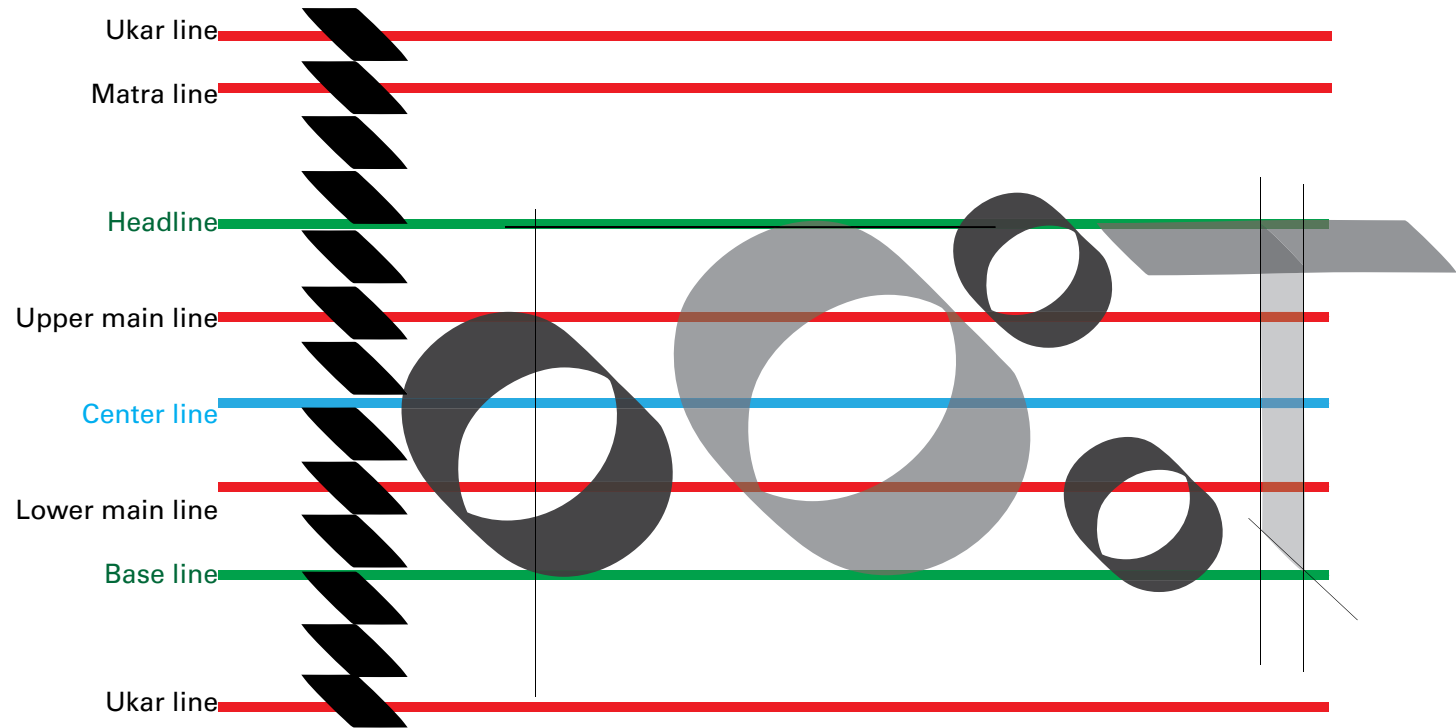


In Calligraphy, the height of the particular script is measured by the widths of the nib which are going to be used for that writing.

(The term "x" height refers literally to the height of the letter x lower case in the Roman letters. In Devanagari s is first letter of the consonants.)

The "O" form is integral to many letters in Devanagari script. It is as fundamental to the alphabet as the horizontal and vertical lines. Practicing the "O" form will help learning and understanding of the Devanagari letter forms.

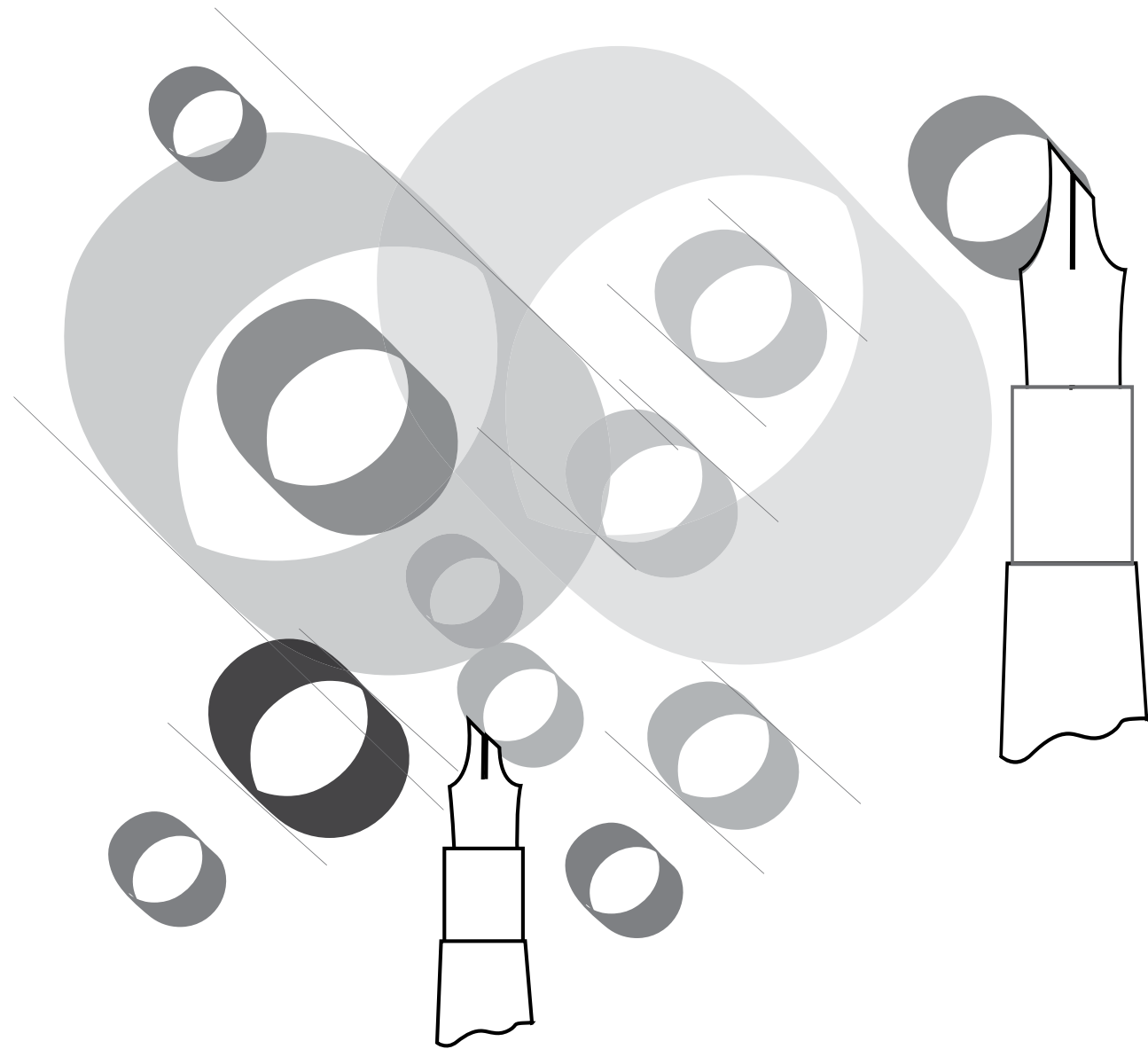
Left diagram showing the effect of changing the weight, shape, height on form 'O' and 'अ'. The square patterns on the left show the height of the pen widths which were used for the writing of the script.



The 'O' Form

The 'O' form written (by reed pen or calligraphy) at 45° angle is an aid to help to learn the proportion of Devanagari alphabets. This skeleton is base of maximum alphabet of the script. The round figure is fundamental to the alphabet

as the horizontal and vertical lines. Practicing the exercise will help to get the exact proportion of a letter forms. The ऋ height of a letter is calculated by using the width of a nib 6 times. The ऋ ascenders and descenders are two and half of the same nib width.



"O" form is the integral part of Devanagari letters. (Aksharanubhava, Calligrapher Shri Achyut Palav's book on Calligraphy). Many letters are having circular shape and "O" form is the basic shape of it. It is fundamental to

the alphabet as the horizontal and vertical lines. Mastering the exercise will ease your learning and understanding of the letter forms of Devanagari script.

Writing Sequence of Devanagari

The construction of Devanagari calligraphy alphabet is a step-by step process or we can say stroke-by-stroke development. Holding pen angle at 45° constantly and then the characteristic part first, the vertical second, the bottom elements third, top elements fourth and top line of binding the whole word at last.

The elements of the Devanagari letters is made to headline. The vertical strokes are drawn from top to downwards.

While learning constructive approach of Devanagari Calligraphy I have not given importance as a phono-graphic classification of the Devanagari Alphabet in the universally agreed sequence.

This sequence is not however followed in teaching the student to write. As a calligraphic approach another sequence based on the graphic similarities is followed instead. While practicing Devanagari calligraphy I found some

interesting classification as follows.

1) Devanagari does not follow a square or rectangle format like Roman letters, it emphasises vertical or horizontal strokes and aims to achieve an aesthetic look.

2) Each letter has its own individuality in terms of calligraphy. While doing calligraphy one has to lift hand at least thrice, these are not one stroke letters like Roman letters.

3) Top line is the unavoidable part of Devanagari letters, this hold group of letters and become a word. This is horizontal line above all the letters, it suggest the totality of the word.

4) Each strokes of each letter travels through 45° angle this is the form creator of each letters. 'O' letter of Roman script is the main elements of Devanagari letter 'form'.

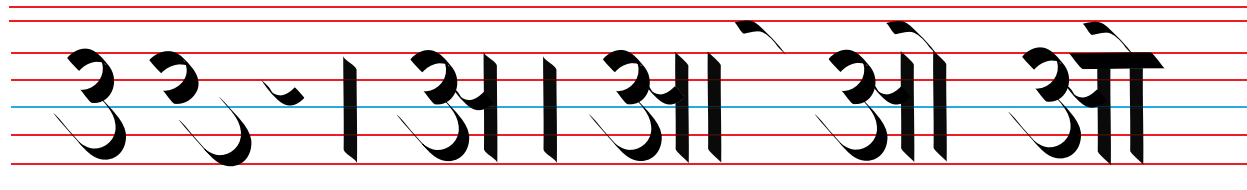
5) The basic Devanagari 'O' is the integral part of too many letters in the script. For newly learner, this is the fundamental to the alphabet as the vertical and horizontal lines. Mastering in Devanagari calligraphy it is very important to understand letter form first.

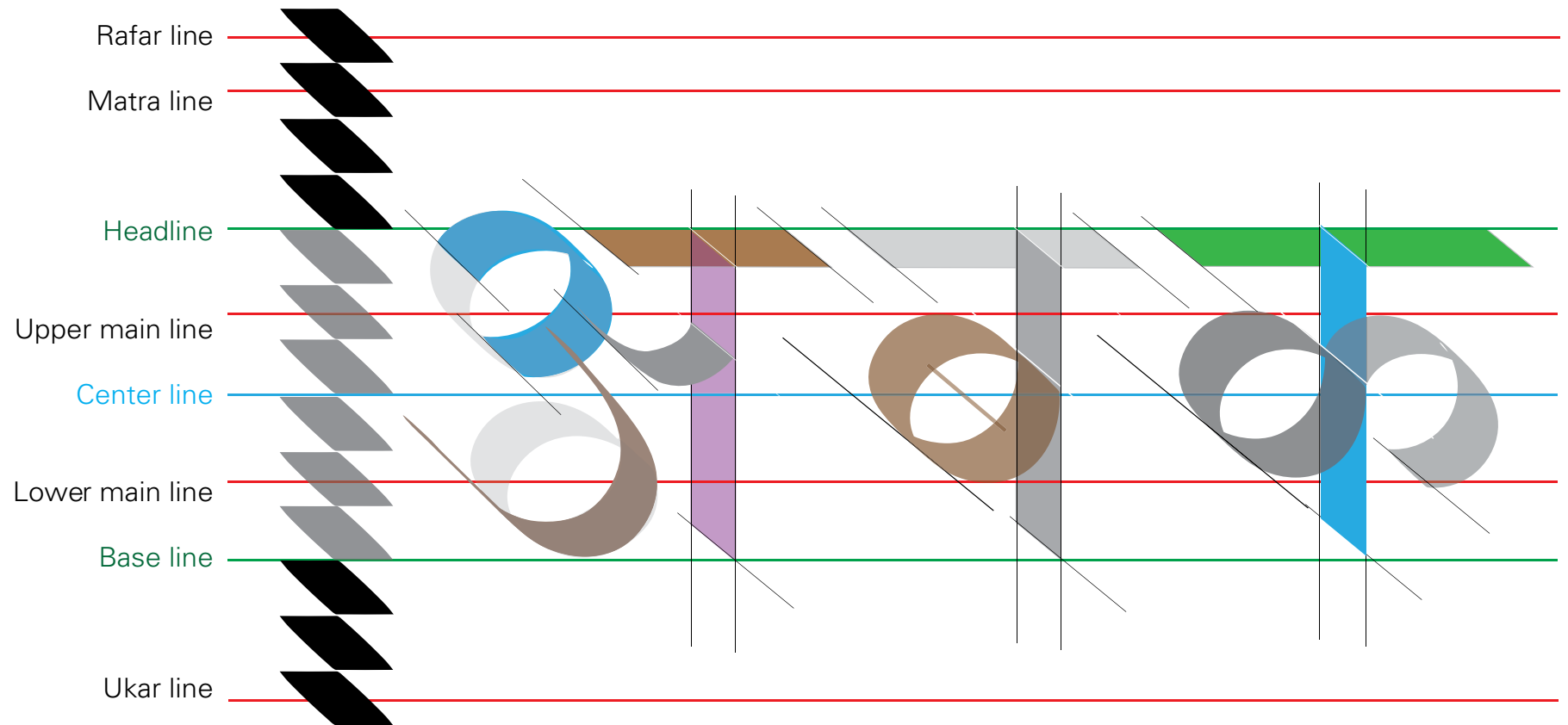
6) The letter height is calculated as calculate for Roman letters. 'x' height of a letter calculated by using the width of a nib 6 times. The ascenders and descenders are 2 1/2 times of the same nib width.

7) Distance between two words has been standardised with spacing of letter '/'. The overhead line helps in distinguishing two words.

8) The distance between two lines can be maintained in such a way that the descenders of the first line will not be mix up with the ascenders of the next line or bellow line.

Where the total height of an individual letter crosses all the layers due to unusual joineries(vowel attachments or conjuncts).

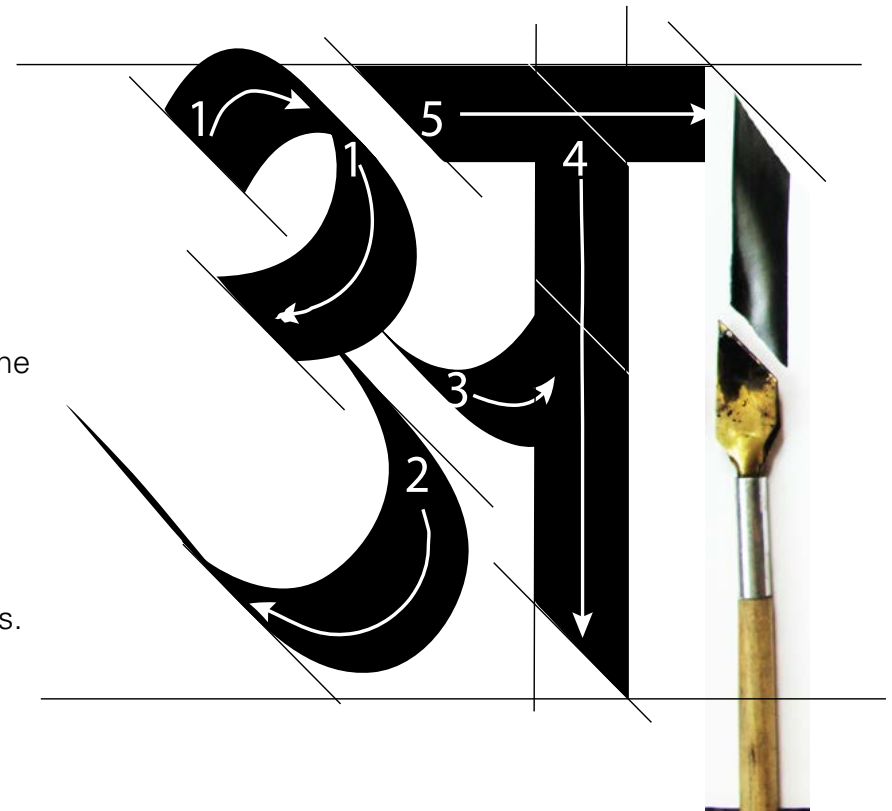


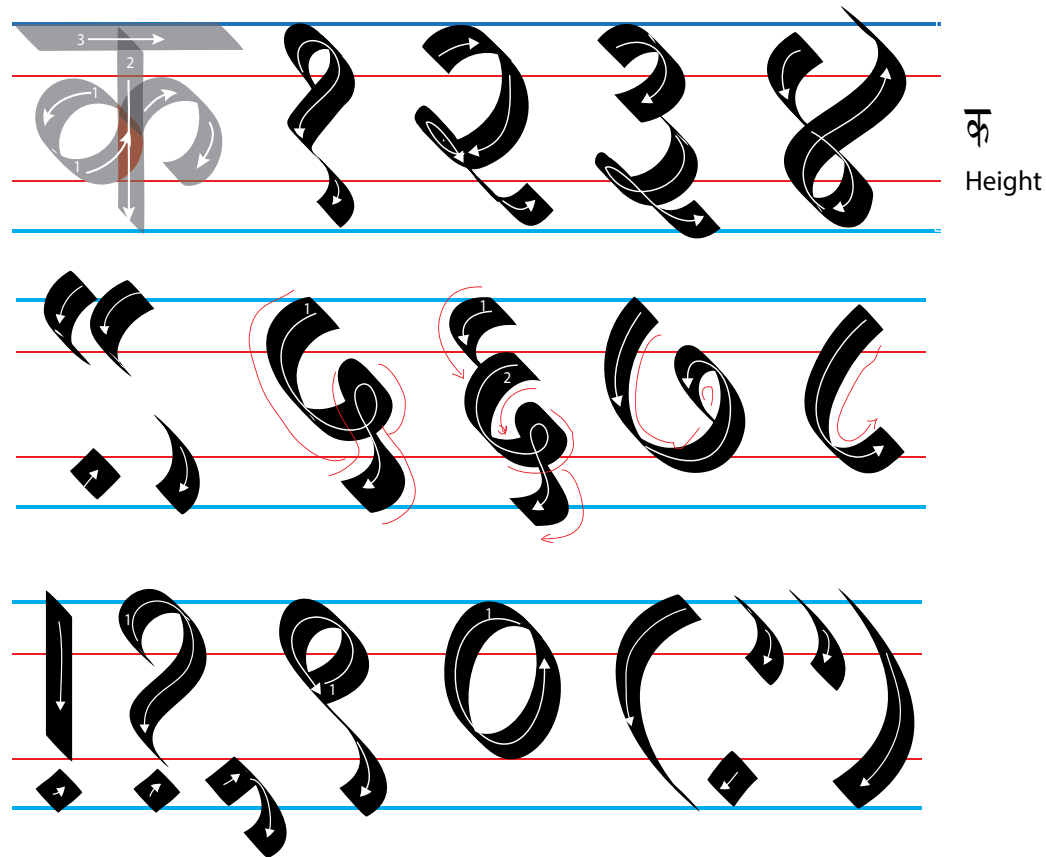


Stroke-by-stroke writing

A book on “Typography of Devanagari” by Shri Bapurao S. Naik is a special gift to the students of art and design field. In the book chapter VII, ‘Analysis and Calligraphy of Devanagari Script of Devanagari’ is interesting and enlightening. The Roman script has been analysis in its graphic form into the elements such as ascender, descender, serif, counter, loop, beak, etc. The Devanagari script, unfortunately,

had not been subjected to such a graphic analysis until Dr. Bhagwat attempted an anatomical description which is interesting. He classified the Devanagari letter in groups. But these groups are without matras, velanties, rafars and ukars.





After practicing letters in Devanagari then comes numbers, it is not easy to write or group successfully, but one should get command like letters writing. Since they are often appear in very few places like date, street numbers or in address and so on. The

simple way to write them is to keep the numbers as same height as letters.

The punctuation marks, commas, full stops, exclamation and question marks should be kept as simple as possible and not too large as letters

Single matra Single matra Hrsve velanti Conjunct

Matra line Rafar line

Headline

Upper main line

Center line

Lower main line

Base line

Ukar line

क Height

औद्योगिक अभिकल्प केंद्र

Dirgha velanti Double matra Hrsve velanti Dirgha velanti Anusvar Loop Kana

Matra line

Headline

Upper main line

Center line

Lower main line

Base line

Ukar line

क Height

भारतीय प्रौद्योगिकी संस्थान

Conjunct

lkar Anusvar lkar

Matra line Rafar line

Headline

Upper main line

Center line

Lower main line

Base line

Ukar line

क Height

पवई, मुंबई ४०००७६

Hrsva Ukar

Matra line Rafar line

Headline

Upper main line

Center line

Lower main line

Base line

Ukar line

क Height

अ उ ँ ऌ आ आ ओ ओ

Sequence based on Graphic Similarities

Letters

व व क ख

प प फ ण

ट ठ ड द

ड ड झ ह

च छ घ ध

Common elements

व

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व ह

Sequence based on Graphic Similarities

Letters

य थ र स ख

श ल ळ

ज झ ञ

ग म भ न त

Common elements

य र

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माझा मराठीची बोलु कौतुकें ।
परि अमृतातंही पैजा जिंकें ।
एसी अक्षरे रसिकें । मळवीन ॥

माझा मराठीची बोलु कौतुकें ।
परि अमृतातंही पैजा जिंकें ।
एसी अक्षरे रसिकें । मळवीन ॥

देवनागरी
देवनागरी
टाईपोग्राफी

अ आ इ ई औ झ ङ
झ झो झै झौ झं झः
ट टा टि टी टु टट
ठ ठै ठौ ठौ ठं ठः
ठ ठा ठि ठी ठु ठू
ड डा डि डी डु डू
डै डौ

क का कि की कु
क के कै को कौ
कं कः क० क१

अ आ इ ई उ ऊ ए ऐ ओ औ अं अः

व व क ख

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Experience and suggestions about writing pen

1) Calligraphy fountain pen

Learning how to write calligraphy in the Western world means learning how to manipulate a 'thick-and-thin' effect which pleases the eye with a flowing, regular pattern.

Nearly always in the West, a 'calligraphy nib' means one that is broad and flat instead of an ordinary rounded point such as a bamboo pen or fountain-pen nib.

I did hours of practice with a Devanagari cut fountain pen, and it stood me in good stead. But a dip pen is actually better to work with even though it's a little more trouble.

If you do want a calligraphy fountain pen, it's preferable to get one with a refillable as well as cartridges.

Yes, it seems cheaper to buy a cartridge pen but then you have to top up with new cartridges. If you get a better calligraphy pen like a Rotring Art Pen then you can also get a piston-fill converter which means that you can refill as often as you like

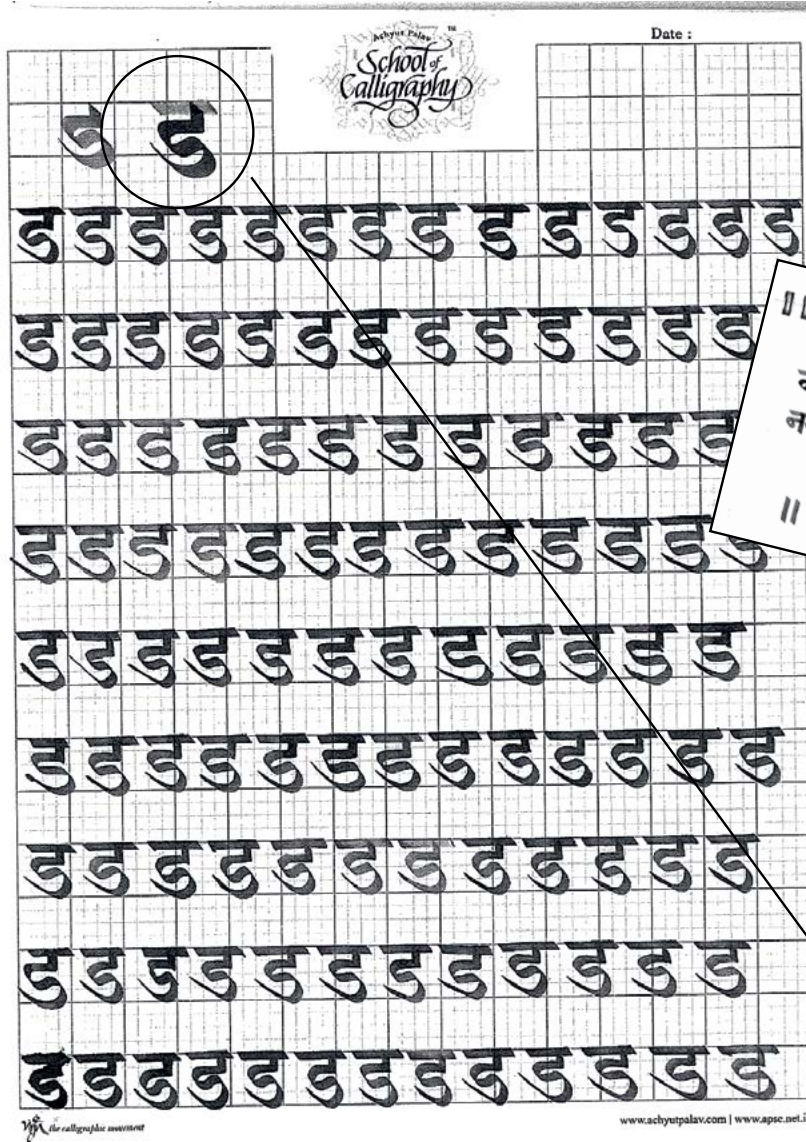
from an ink bottle – and change colours whenever you want, too.

So, you try it out. It's interesting. Good results look very possible. You're prepared to commit to a set of metal dip nibs. There is a lot of typical tools, such as metal brush pens. But the traditional instrument is a pen made of dried reed or bamboo.

The traditional way to hold the pen is with middle finger, forefinger and thumb well-spaced out along the [pen's] shaft. Only the lightest possible pressure is applied. As for the ink, you have many options: black and brown (often used because their intensity and consistency can be varied greatly) as well as yellow, red, blue, white, silver and gold.

The important thing is that the greater strokes of the composition be very dynamic in their effect.

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माझा मगरीची बोलु कौतुकें ।
परि अमृतांतही पैजा जिंकें ।
एसी अक्षरे रसिकें मेळवीन ॥

नमो देव्यै महादेव्यै शिवायै सततं नमः
नमः प्रकृत्यै भद्रायै नियताः प्रणताः
: रम ताम् ॥
॥ श्री सरस्वत्यै नमः ध्यायामि ।

त्वमेव माता च पिता त्वमेव
त्वमेव बन्धुस्त्वस्त्वा त्वमेव ।
त्वमेव विद्या त्वमेव मम देवदेव ॥

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Example of writing
words, sentences,
and paragraphs

Practice sheet and
correction by the
Palav sir



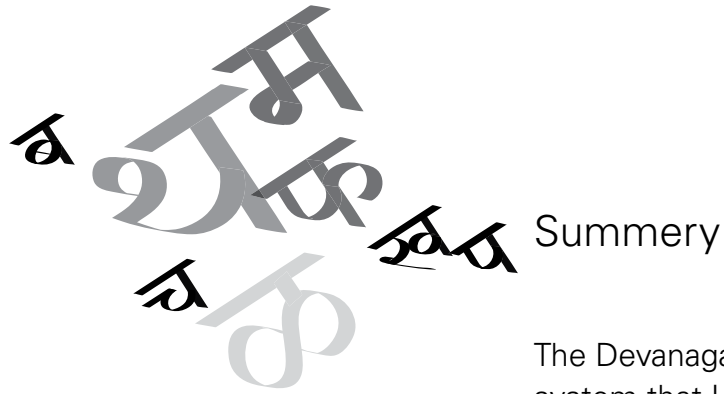
Practice sheet and correction by the Palav sir

During this internship, I tried myself to get accuracy and exact form of the alphabet but could not get at par what Sir wanted, its require full of devotion and continue practice, I decided to push myself in to the ocean of this Devanagari calligraphy.

श्रीदुर्गामानस	संगीतसंधा
आमृष्टां	सुगमसंगीत
गृहांविके	गीतबहार
भक्तकल्पलता	भजनकिर्तन
पुजाविधि	कलासिकल
नमस्कार	सुरसंगम

धा चघघछठलल २२२२२
 ३३३ इरं२ पीयम् इ०४४
 येई हो विट्टले माउली माझे ये ॥
 निढळावरी कर ठेवुनि वाट मी पाहें
 आलिया गेलिया हातीधाडी निरोप ।
 पंढरपुरी आहे माझा मायबाप ॥१॥
 पिवेळा पीतांबर कैसा गगनीझळकत
 गरुडावरी बैसोनि माझा कैवरी आल
 विठोबाचे राज्य आम्हां नित्य दिपवार्क
 विष्णुदासा नामा जीवेभावे ओवाळी ।
 येई हो विट्टले माझे माउली ये ॥
 निढळेवरी कर ठेवुनी वाट मी पाहें ।

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 स्वप



Summary

The Devanagari Script is the most impressive writing system that I have studied during this internship. It impresses me for many reasons, for instance:

Graphical proportion is very important for the purpose of calligraphic applications. Graphic similarities helps to construct alphabets, words, and sentences. Constant pen angle at 45 degree provide interesting form of a alphabet. The ordering of the letters is according to precise scientific principles. Each letter transcribes a distinct sound. It recognizes subtle distinctions in sound.

I also find Devanagari to be a very beautiful script. I have not touched other classification according to the place within the mouth that they are articulated. Only the writing sequence Devanagari has been explain in this report.



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