அரங்கை எவர் விளக்கு தவறாமல் செய்வது என்றால் என்று வருகையுடைய ஏழு அல்லார் என்று ஓழிப்பது.
కారిక దినం పండుస్తుంది లేదా లింగదినం లేకపోయినా లేదు. తాకానించడానికి అనేకం అంచించాడు.
పై ఒక ఫ్ంట్సింగ్ వాటి క్రితం లేదు.

సంఖ్యాతి శాసనానికి సాధనాలు ఉంటాయి.

సమీపంలో ఉన్న వస్త్రం వలస ప్రత్యేకంగా ప్రాతిష్ఠించబడింది.
To explore the methods and processes involved in designing an onscreen font
Aim:

To explore the methods and processes involved in designing an onscreen font
Evolution of Telugu Characters
Evolution of Telugu Characters

Brahmi Lipi
Evolution of Telugu Characters

Brahmi Lipi

Northern Script  Southern Script
Evolution of Telugu Characters

Brahmi Lipi

Northern Script Southern Script

Dravidian Languages
Evolution of Telugu Characters

**Brahmi Lipi**

Northern Script  **Southern Script**

Dravidian Languages

- Central Group
- Southern Group
- Northern Group
Evolution of Telugu Characters

Brahmi Lipi

- Northern Script
- Southern Script

Dravidian Languages

- Central Group
  - Gondi
  - Konda
  - Kui
  - Manda
  - Parji
  - Gadaba
  - Kolami
  - Pengo
  - Naiki
  - Kuvi
  - Telugu

- Southern Group
  - Tulu
  - Kannada
  - Kodagu
  - Toda
  - Kota
  - Malayalam
  - Tamil

- Northern Group
  - Brahui
  - Malto
  - Kudukh
Evolution of Telugu Characters

Ashoka Brahmi Inscription (3rd century BC)
Evolution of Telugu Characters

Inscription from the time of poet Erranna (14th century)
Christian writings in Telugu (1747)
One of the first instances of Christian Missionary writings in Telugu. It was published by Rev. Benjamin Schultze in Halle/ Magdeburg (modern Germany).
Evolution of Telugu Characters

Text from William Philip Brown's: Grammar of the Kent Language
Onamaalu

The Telugu characters are called ‘Onamaalu’

Hallulu/ Vowels:

\[
\begin{array}{ccccccc}
\text{अ} & \text{आ} & \text{इ} & \text{ई} & \text{उ} & \text{ऊ} & \text{ऋ}\\
\text{ए} & \text{ऐ} & \text{ओ} & \text{औ} & \text{अं} & \text{अं}
\end{array}
\]
Onamaalu

Acchulu/ Consonants

క ข ɣ ɣ /fs/ ฉ

ч ้ จ ฉ จ

ट ڈ ढ ण

त ’y’ ढ ण

प फ ब भ

य र ल व छ

श ष स ह क र
Features of Telugu Letter forms

The script is round in shape
The vertical widths are quite different (vowel to vowel, consonant to consonant, conjunct to conjunct).
This leads to affect the horizontal continuity.

నిహితయం

(‘Saahityamu’)
Features of Telugu Letter forms

Identifying the characters at smaller point sizes

\( \text{Va} \) \hspace{1cm} \text{Pa} \hspace{1cm} \text{Na} \hspace{1cm} \text{Sa} \)

\( \text{Va} \) \hspace{1cm} \text{Pa} \hspace{1cm} \text{Na} \hspace{1cm} \text{Sa} \)
Features of Telugu Letter forms

Vertical as well as horizontal distribution of vowel and consonant signs.

‘Maxism’
Features of Telugu Letter forms

Single vowel matra is represented in different ways depending on the consonant.
Features of Telugu Letter forms

Single vowel matra is represented in different ways depending on the consonant.

('Rashtram')  ('Sri')

('Stri')  ('Prapancham')
Features of Telugu Letter forms

Matras won’t sit in one particular place for every character but differ from one character to another.

(‘Ki’)  (‘Ti’)  (‘Khi’)
Features of Telugu Letter forms

Matras won’t sit in one particular place for every character but differ from one character to another.

('Ki')

('Ti')

('Khi')
Character Details


d
Character Details
Character Details
Character Details

[Image of a character]
Character Details
Character Details

Top matra

Base Character

Side Matra

Lower Matra
Screen Technologies
Screen Technologies

CRT (Cathode Ray Tube)
Screen Technologies

CRT (Cathode Ray Tube)

LCD (Liquid Crystal Display)
Screen Technologies

Sub Pixel Rendering
Anti-aliasing/ Gray Scaling

Anti-aliasing is a method of drawing text or pictures which smooth edges, and avoids jagged edges (jaggies).

Overlaying a glyph on a pixel grid

A Glyph rasterized NOT anti-aliased

A Glyph rasterized Anti-aliased
Design Considerations
Design Considerations

Rectangular Grid
Design Considerations

Rectangular Grid

Big Open Counters

Handgloves
Design Considerations

Rectangular Grid

Big Open Counters

Mono-thickness

Handgloves
Design Considerations

Rectangular Grid

Big Open Counters

Mono-thickness

Spacing

Handgloves
Grid Analysis

Anupama

Horizontal stroke: x
Max. stroke thickness: 2.6x
Top matra: 8x
Bottom Matra: 12.4x
Side Matra: 23x
Total Height: 36.5x
No. of Glyphs: 227
Grid Analysis

Brahma:
Horizontal stroke: x
Vertical stroke: 2.1x
Top matra: 3.75x
Bottom Matra: 7.15x
Side Matra: 10.1x
Total Height: 16.8x
No. of Glyphs: 256
Grid Analysis

Gautami:
Horizontal stroke: x
Max. stroke width: 1.25x
Top matra: 4.65x
Bottom Matra: 5x
Side Matra: 11.9x
Total Height: 16.65x
No. of Glyphs: 613
Ground Work

Traced Univers typeface to comprehend how letters are optically balanced.
Initial Explorations
Initial Explorations
Initial Explorations
Initial Explorations
Initial Explorations
Initial Explorations
Final Grid

Base character: 428 UPM units
Top matra: 268 UPM units
Bottom matra: 304 UPM units
Form Transformation
Form Transformation

మే (1)
Form Transformation

(1)  

(2)
Form Transformation

(1) 

(2) 

(3)
Form Transformation

(1)  (2)

(3)  (4)
Proposed

Existing
சு மாற்றும்
Final set of Characters
చి మహంతం

Final set of Characters

Hallulu/ Vowels:
Final set of Characters

Hallulu/ Vowels:
Final set of Characters

Acchulu/ Consonants:
Final set of Characters

Acchulu/ Consonants:

భ్య్య, కొయంబ్య, పలాయ హందు, మాచో కండి రాయ మాటలు సమాధి ప్రతియే రచయ
Features

Proposed

Sri Muthyalu

Existing

Pothana

Eenadu

Gautami
Features

Proposed

Existing

Pothana

Sri Muthyalu

Eenadu

Gautami
Features

Proposed

Sri Muthyalu

Existing

Pothana

Eenadu

Gautami
Hinting
User Testing
User Testing
Conclusion
Conclusion

The typeface must be contemporary and fit for the modern typographic environment.

An attempt has been made to come up with a comprehensive font design. The font needs to better hinted, in order to make it look better on the computer monitor.
Thank You!
Thank You!

Guide: Prof. G.V. Sreekumar

Udaya Kumar
Girish Dalvi
Bijuneyyan
Nirmal Biswas

Prof. Ravi Pooviah
Dr. Ajanta Sen

& 2 all da ppl wrkng 4 Indian Type Design... :-}
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