Typography Day 2011

A comparative study of Meetei Mayek

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A COMPARATIVE STUDY OF MEETEI MAYEK
[ FROM THE INSCRIBED LETTERFORM TO THE DIGITAL TYPEFACE ]
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<tr>
<th>Type</th>
<th>Image</th>
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<td>Manuscript Letterforms</td>
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MEETEI / MEITEI / MEITHEI / MANIPURI SCRIPT

The indigenous script of Manipur to write Meeteilon or Manipuri language

A specimen of Cheitharol Kumpaba (*The Court Chronicle of the Kings of Manipur*)
MEETEI / MEITEI / MEITHEI / MANIPURI SCRIPT

The indigenous script of Manipur to write Meeteilon or Manipuri language.
ADVENT OF MISSIONARIES IN 18TH CENTURY

King Pamheiba adopted the religion Vaishnavism
BURNING OF PUYA  (Ancient book of knowledge)

A sample of Laining Lambi manuscript written on the agarbak, 18th century
(Manipur State Archive, Manipur)
INTRODUCTION OF BENGALI SCRIPT

A specimen of Manuscript (Sanskrit) written in Bengali script in 18th–19th century. (Manipur State Archives)
MIXING OF BENGALI LETTERFORMS

A specimen of Manuscript that shows the inclusion of Bengali script in Meetei Mayek. (Manipur State Archives)
A sample of a letter in Manipuri script sent to Viceroy of India by Maharaj Chandrakirti in 1868. (The Lost Kingdom: Royal Chronicle of Manipur)

A sample of a letter in Bengali script sent to the Viceroy and Governor General of India by Maharaj Soorchandra in June, 1889. (The Lost Kingdom: Royal Chronicle of Manipur)
BRIEF HISTORY OF MEETEI MAYEK

ATTEMPTS TO REVIVE THE SCRIPT (1930–1980)
There were debates on the number of letterforms, especially ‘36’ and ‘27’

A sample of Meetei Mayek 36 letterforms (Linguistic Survey of India)

A sample of Meetei Mayek 27 (18+9) letterforms (Manipur Gazette No. 33, Secretariat, Department of Education, 1980. Contributed by Khumancha M)
In 1980, the government of Manipur approved Meetei Mayek with the 27 letterforms and its supplements.
INCLUSION OF MEETEI MAYEK IN 2005–06
After almost 25 years since approval of the script, the government of Manipur included Meetei Mayek as a part of academic curriculum.

A sample of Meetei Mayek written by a young student. (Nikita’s handwriting)
MEETEI MAYEK AND ITS PECULIARITIES
NOMENCLATURE
Name of the structure parts of Meetei Mayek letterforms
EEYEK EEPEE
The original 18 letterforms
EEYEK EEPEE
The original 18 letterforms

A sample of 18 letterforms of Eeyek Ipee illustrating its derivation of the names and the structures from the human anatomy. (Meetei Mayek Tamnaba Mapee Lairik)
LOM EEYEK
9 letterforms which were added later
LOM EYEK
9 letterforms which were added later

A sample showing the derivation of Lom Eyek from its corresponding Eyek Eepee sounds (Meetei Mayek Tamnaba Mapee Lairik)
LONSUM EEYEK
Semi consonant or half sound

 Stamina to

  → ﾞ

  → ﾘ

  → ﾋ

  → ﾖ

  → ﾗ
CHEITAP EYEYK
Vowel signs (Forms word shape)
KHUDAM EYEYK
Punctuation marks
CHEISING EYEYK
Numerals

1 2 3 4 5 6 7 8 9 10
CHEISING EYEYK
Numerals

An illustrated diagram showing the derivation of Meetei Mayek numerals from the embryonic development of a human foetus. (Meetei Mayek Tamnaba Mapee Lairik)
### Headline and Baseline

Consists of both headline as well as baseline

<table>
<thead>
<tr>
<th>Script</th>
<th>Example</th>
<th>Typeface</th>
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</thead>
<tbody>
<tr>
<td>Gurmukhi</td>
<td>पंजाबी</td>
<td>Gurmukhi MT</td>
</tr>
<tr>
<td>Devanagari</td>
<td>हिंदी</td>
<td>Devanagari MT</td>
</tr>
<tr>
<td>Bengali</td>
<td>বাংলা</td>
<td>Frijky Bengali</td>
</tr>
<tr>
<td>Meetei Mayek</td>
<td>हिंदी</td>
<td>Sanamahi</td>
</tr>
</tbody>
</table>

Examples of Meetei Mayek letterforms that have with both headline and the baseline

- (Kok)  
- (Kok lonsum)  
- (Ngou)  
- (Ngou lonsum)
GAP BETWEEN LETTERS
The Meetei Mayek letters do not connect with each other when written

Example of a Meetei Mayek word showing the gap between the consecutive letterforms.
PRESENCE OF MULTIPLE VERTICAL STROKES
The presence of multiple vertical strokes and their repeated appearance in
text-setting form a unique texture and colour.
ABSENCE OF CONJUNCT LETTERFORMS
Though conjunct letterforms existed in 18th–19th manuscript, the modern Meetei Mayek does not have conjunct letterforms.

Ligature sign
SOME CHANGES IN TYPOGRAPHIC EXPRESSIONS
STRUCTURE AND PROPORTION

Until the point that Meetei Mayek was written by hand (in inscriptions and manuscripts), its letterforms underwent a lot of change structurally, because different writers constructed the letterforms in different proportions.
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STRUCTURE AND PROPORTION

Meetei Mayek letterforms engraved on wood can be considered the first attempt at creating a typeface. This marks the transition between handwritten and printed type.
STRUCTURE AND PROPORTION

The letterforms were then translated to metal–type retaining close proportion to the wooden type. Similarly, the letterforms of metal–type are translated to the digital typeface.
STRUCTURE AND PROPORTION

Once it reached the stage of printed letterforms (in letterpress and digital typeface), these structural changes came to an end, thus resulting in the basic structures that exist today.
STRUCTURE AND PROPORTION

In sign–painting, one finds a variety of letter proportions of Meetei Mayek—condensed, compressed and expanded.
STRUCTURE AND PROPORTION
Sign-painting explores various structures and proportions, yet maintaining a consistent feature that groups letterforms as a family.
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NATURE OF STROKE
The nature of the stroke refers to the shape of the stroke of the letterform. It can broadly be divided into two—mono-linear (equal thickness) and modulated strokes (difference in thickness).
NATURE OF STROKE

Historically, the letterforms have an inescapable association with tools and materials used for writing. Depending on the tool and technique used, one can determine the nature of the stroke in the letterforms.
Letterforms in Meetei Mayek inscriptions were traced (chiseled) from draft letterforms written with a sharp nib on sandstone.
NATURE OF STROKE

Early manuscripts (16th and 17th) of Meetei Mayek were written with bamboo, reed, and quill feathers sharpened to a fine tip.

Specimen of a manuscript written on palm leaf. The writer etched the letterforms with sharp or pointed nib.

(People’s Museum Kakching)
NATURE OF STROKE
As a result these letterforms possessed mono-linear strokes.
NATURE OF STROKE

The Bengali script introduced a new tool—the broad nib pen. This influenced the letterforms of Meetei Mayek and modulated strokes came into existence.
NATURE OF STROKE (LETTERPRESS)
Only Mono-linear stroke existed in the domain of letterpress (wooden and metal type).

Printed Wooden type (Mono-linear)

Printed Metal type (Mono-linear)
CHANGES IN THE TYPOGRAPHIC EXPRESSIONS

NATURE OF STROKE (DIGITAL)
The modern Meetei Mayek letterforms (digital typefaces) have both mono–linear and modulated strokes.

Kanglei Apaba, 2003 (Mono–linear)

Kanglei Phajaba, 2004 (Modulated stroke)
In Meetei Mayek typography, hierarchy is created through size, weight and style. Early inscriptions and manuscripts of Meetei Mayek had a few examples of the use of size and weight to create hierarchy.
HIERARCHY (SIZE)

The prominent usage of size and weight began only with the arrival of letterpress (metal type) and digital type.

Sample of letterforms printed with hot metal, creating hierarchy of text using the difference in size of letterforms (Eikhoigi Thouramlon)
**HIERARCHY (SIZE)**

Metal type had only 4 different sizes of the same style (mono-linear): small, regular, medium and large. The difference in weight didn’t exist in Metal type.
The usage of different weights to create hierarchy began with digital typefaces (an influence from foreign scripts like Latin, Bengali etc.)

**HIERARCHY (WEIGHT)**

Kanglei Apaba (Thin), 2003

Kanglei Eeyek (Regular), 2003

Kanglei Athaba (Bold), 2003
HIERARCHY *(WEIGHT)*

The usage of different weights to create hierarchy began with digital typefaces (an influence from foreign scripts like Latin, Bengali etc.)

Text sample of using bold and regular to differentiate the hierarchy of text. *(Meetei Mayek* Araiba Mapi Lairik 2005)
HIERARCHY (STYLE)

The sign-painting domain explores various means in creating hierarchy—the technique of shadows, highlights, outlines, slanted etc.
HIERARCHY (STYLE)

Sign-painting letterforms generally serve for display typefaces—to catch or attract the attention of the viewer. This led to the formation of letterforms that are highly decorative and expressive in nature.
CHANGES IN THE TYPOGRAPHIC EXPRESSIONS

TEXTURE & COLOUR

Meetei Mayek has a unique texture due to its structure and formation of text.
TEXTURE & COLOUR (MULTISCRIP)  
Due to the presence of multiple scripts, Meetei Mayek texture has evolved.
CHANGES IN THE TYPOGRAPHIC EXPRESSIONS

TEXTURE & COLOUR (MULTIScript)
In the 1980s with the introduction of metal-type, the presence of Meetei Mayek increased. Since then, Meetei Mayek has prominently existed along with Latin, Bengali and occasionally Devanagari.
TEXTURE & COLOUR (WORD SPACE)

Introduction of word and paragraph space. Early writings of the manuscript did not have word and paragraph space.
TEXTURE & COLOUR (WORD SPACE)

With the arrival of other scripts in the 18th–19th century, word and paragraph space slowly came into existence in Meetei Mayek.
Though there is no definite reason behind this introduction, word spaces appear in the samples of transliteration of language.
TEXTURE & COLOUR (PUNCTUATION MARKS)
Addition of punctuation marks like comma, colon, bracket etc., from the Latin script.
CHANGES IN THE TYPOGRAPHIC EXPRESSIONS

TEXTURE & COLOUR (LIMITATIONS)
Due to the technical limitations for production, the texture of the printed text with letterpress (metal type) stood out.
TEXTURE & COLOUR (LIMITATIONS)
Therefore, there is an apparent gap in the text-setting, disrupting the cohesive nature of word formation, which in turn affects the texture and colour.
TEXTURE & COLOUR
Interestingly, digital typefaces are influenced by the letterpress text composition. Vowel signs are now intentionally positioned on the top-right or bottom right of the letterforms, although technology allows them to be positioned like they were in early inscriptions and manuscripts.
TEXTURE & COLOUR

Due to technical advancement, digital typefaces have solved most problems—limitations on size, weight, style, vowel sign positioning etc.
TEXTURE & COLOUR

It allows an easier way for complex type-setting—the combination of text and image, multilingual typesetting with different scripts etc.
CONCLUSION

CO–EXISTENCE
At present, Meetei Mayek co–exists with Bengali script.
MEETEI MAYEK REPLACING BENGALI SCRIPT
Students are now learning only Meetei Mayek script and Bengali script is no more a part of children’s educational curriculum.
The letterforms found in inscriptions and manuscripts show an immediate influence of handwriting. They show spontaneity and have a natural flow of the stroke. They could be a good inspiration for developing text typefaces.
CONCLUSION

INSPRITION
Sign-painting letterforms are more constructed and geometric rather than possessing a natural stroke movement. This can serve as a useful source of inspiration for developing display typefaces.
INSPIRATION

It is equally important to examine printed letterforms, as the technical restrictions and advantages in producing them influence the design of a typeface.
WITH THESE SOURCES OF INSPIRATION, ONE WILL UNDERSTAND THE LIMITATIONS AND POSSIBILITIES WHILE DESIGNING A TYPEFACE.
Thank you