Introducing Hiji-bij-bij

A Homage to Sukumar Ray through Type Design in Bengali

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Abstract: Type is everywhere around us, in any textual information we see, it's crafted with intention. It is the invisible hand that sculpts information, shapes meaning, and influences perceptions of the world around us.

The Latin script has an overarching presence in typography. However, in the rich cultural tapestry of India, where English has such an overarching presence, there are few sources of experimentation in display typeface of Indian vernacular language, like Bengali.

This research delves into the vast and dynamic world of typography, specifically focusing on the unique challenges associated with experimental Bengali display typefaces. The investigation unfolds through a focused case study, which examines a novella, named *Hojoborolo* as the primary text and attempts to translate its literary and linguistic elements into the visual form of a typeface.

The goal is to grasp the essence of nonsense and whimsy through subtle, yet impactful typographic interpretations. The typeface will steer clear of overt illustration, prioritizing clarity and readability while subtly hinting at the novella's playful spirit.

Key words: Indian typography, Bengali display typeface*, Hojoborolo,* absurdism, experiment type, Bengali script, vernacular

1. Introduction

"Typography has the ability to give a voice to languages. It's not only capturing the words as they're written, but also the subtle emotions of language." (Storozynsky, Extensis, 2022)

The foundation of typography lies in various languages, with their own grammar, history, and cultural nuances it presents and influences colloquial conversations and daily life. This omnipresence provides a complexity we rarely acknowledge.

In today's world, where English is the most widely used language, the Latin script has become omnipresent (Berlitz, 2024).

India is a multilingual country with 22 official languages, 270 mother tongues, and 14 major scripts (Ministry of Education). Despite being such a diverse country in terms of cultural and linguistic diversity, there is far less experimentation in the vernacular languages of India than in English.

Bengali is the second most spoken language in India. It is the official and national language of Bangladesh and the 6th most spoken native language in the world. Despite the majority of speakers, there is little experimentation in Bengali typography in today's age.

With this project, I aim to retrace my roots and highlight my cultural identity which was majorly shaped by my mother tongue, Bengali, and subsequently the Bengali language and related literature I was immersed in while growing up.

The Bengali script is written from left to right and is recognizable by a distinct horizontal line sitting atop the letters, stringing them together. This horizontal line is called the *matra*, (মাত্রা). The alphabet is divided into 11 vowels, called *shoroborno* (স্বরবর্ণ), and 39 consonants called *byanjonborno* (ব্যঞ্জনবর্ণ).

The conjuncts that form the script are upstrokes, downstrokes, horizontal, vertical, and diagonal lines along with a few curved or semicircular forms. The punctuation is the same as in the Latin script, apart from the full stop. The full stop/period is indicated by a *dari* (written as 'দাঁড়ি', '।').

অ আ ই ঈ উ ঊ
ঋ এ ঐ ও ঔ

ক খ গ ঘ ঙ
চ ছ জ ঝ ঞ
ট ঠ ড ঢ ণ
ত থ দ ধ ন
প ফ ব ভ ম
য র ল
শ ষ স হ
ড় ঢ় য়
ৎ ং ঃ ঁ

Figure.1 The Bengali Script

2. Origin and Evolution of the Bengali Script

The Bengali language is derived from Indo-Aryan languages like Magadhi Prakrit and Pali, from which similar cognate languages like Assamese and Odia also arise. The script is derived from an eastern variety of the Brahmi script (refer to Fig. 2, 3, 4, 5 for comparison).

While linguists Suniti Kumar Chatterji and Sukumar Sen propose its emergence from Magadhi Prakrit and Magadh Apabhramsa in the 10th century CE, scholar Muhammad Shahidullah attributes its development to Gauda Banga. The script itself evolved from Kutila Lipi, an eastern variety of the Brahmi script, which originated as early as the 8th century BC.

The Bengali script has been modified and shaped through the ages, with the influence of diverse intercultural exchange and movements like the Bengal Renaissance.

Figure.2 Vowel alphabets

Figure.3 Consonant alphabets

Figure.4 Consonant alphabets

Figure.5 Consonant alphabets

2.1 Evolution of the Bengali Script in Use

The evolution of Bengali literature spans three distinct eras as elaborated in the table below:

Literature Era	Details
Ancient Bengali (10th-12th century CE)	The *Charyapada*, a collection of Old Bengali Buddhist songs, is considered the earliest recorded Bengali literature. Discovered by Haraprasad Shastri on palm leaves, it dates back to the 10th-12th centuries CE.
Medieval Bengali (1200 - 1800 CE)	The 1200-1800 CE period saw the evolution of the Bengali script, heavily influenced by Muslim writers and the Middle East. This

	intercultural exchange culminated in the creation of the *Bhagavata Purana,* the oldest narrative poem in Bengali.
Modern Bengali (post - 1800 CE)	The Bengali Renaissance (circa 1800s) significantly shaped Bengali literature. Amidst this literary and intellectual awakening, Sukumar Roy published *Hojoborolo,* a pivotal work and the primary source of inspiration behind this project.

Table 1. Eras of Bengali Literature

The 1770s were significant for the Bengali language in its printed form. The first book printed in Bengali characters with movable type, *A Grammar of the Bengali Language*, written by Nathaniel Brassey Halhed was the first book to publish Bengali grammar in a standardized way.
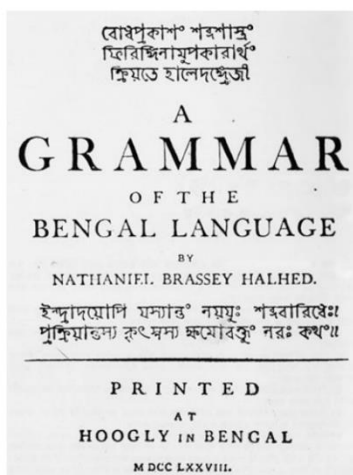
Figure. 6 A printed Inside Cover of Nathaniel Halhed's
A Grammar of the Bengal Language

Within the context of British influence, we revisit Nathaniel Halhed. To print Halhed's book satisfactorily, Charles Wilkins was called upon by the East India Company to cut the fount for Bengali printing characters. He subsequently collaborated with and taught local artist, Panchanan Karmakar, the technique for cutting punches for printable characters (Khan, 1976), (Indian Statistical Institute, n.d.).

While Halhed and Wilkins laid the groundwork for printing in Bengal, (Das, 2021-22), (Ross,

Evolution of the printed Bengali Character, 1988) it was the missionaries of Srerampore who contributed to the development of the vernacular printing industry in Bengal.

Later, Ishwar Chandra Vidyasagar and Madanamohan Tarkalankara collaborated to establish a standard Bengali character set for printing, which in turn informed the Bengali alphabet as we know it today. Ishwar Chandra Vidyasagar's Bengali primer *Bornoporichoy* (বর্ণপরিচয়), published in 1855, remains the foundational Bengali alphabet students use to begin their educational journey with to this day.

Siresh Chandra Majumdar of Sri Gouranga Press provided crucial support in introducing Linotype technology to printing in Bengal, which was first implemented in the widely popular news circular *Anondo Bajar Potrika* (আনন্দবাজার পত্রিকা) during the 1930s.

Figure. 7 Experimental 12 point in Linotype

2.3 Letterform Anatomy
The Latin alphabet has benefitted from extensive research on letterform anatomy. However, Bengali is yet to receive a comparable depth of study and experimentation. This disparity might be attributed to the complexity of letterforms in the Bengali script. Unlike the Latin script, Bengali characters exhibit a higher degree of intricacy. They often incorporate elements like filled or unfilled dots, asymmetrical bowls, jagged edges, and joint letters which give rise to intricate and complex forms.

Among Indic scripts, Devanagari has garnered significant attention in typographic studies as it forms the foundation for many other Indic languages. Despite its wider reach and audience, a comprehensive understanding of its letterform anatomy remains out of reach.

In his seminal paper, *'Anatomy of Bengali Letterforms'*, Subhajit Chandra introduces terminology for the anatomical features of Bengali characters (Subhajit Chandra, 2015). However, a significant portion of these terms are essentially translations from the Devanagari script, which might potentially lead to confusion when adapted to Bengali letterforms.

To address this, the work of notable type designer Fiona Ross merits attention. having created a new typeface for the widely circulated Bengali newspaper, *Anondo Bajar Potrika* (আনন্দবাজার পত্রিকা). Building upon insights from Ross' book, *'The Printed Bengali Character and its Evolution'*, Jacob Thomas, founder of the Bangla Type Foundry, has proposed a work-in-progress framework for Bengali letterform anatomy.

Figure. 8 Anatomical Nomenclature of the Bengali Script

Despite attempts to standardize anatomical terminology, a key challenge persists: the lack of a single, unified framework for these aspects. Moreover, anatomical features are mentioned as underdeveloped, and structural grid lines remain undefined. Furthermore, a comprehensive system for sorting and categorizing anatomical features is undeveloped. This lack of consistency hinders clear communication, making cross-referencing typographic research in Bengali difficult.

3. Methodology

The methodology for this study was structured across two streams, each devised to provide comprehensive insights and thus allowing us to form a nuanced observation in the landscape of experimental Bengali typography:

- **Primary Research:** This phase involved an extensive examination of the primary source of inspiration, supplemented by analysis of similar, relevant materials.

- **Secondary Research:** This included an in-depth exploration of the historical linguistic and scriptural context of the Bengali language, a wide-ranged observation of online Bengali font libraries, and a rigorous visual analysis of typographic experimentation across diverse mediums such as film posters, books, and magazine covers. The objective was to gain a robust understanding of the determining characteristics required to design an authentic and expressive Bengali display typeface, grounded in both traditional letterforms and contemporary typographic innovation.

3.1 Research Questions

The questions that this paper and consequently my work attempt to address are:

1. How can one define 'nonsense'? How does the concept of 'nonsense' in linguistic and literary contexts translate into visual typographic expressions in the Bengali alphabet?

2. How might we reimagine and incorporate playfulness, whimsy, and other notable characteristics associated with characters in *Hojoborolo* translate to Bengali letterforms?

3. What methods can be used to evaluate the effectiveness of a whimsical type design in enhancing readers' engagement with Bengali texts?

4. Analysis

This section discusses the visual characteristics of body and display typefaces based on the observations made during this study. The study was conducted by browsing multiple online type foundries, newspapers, and children's books.

4.1 Visual characteristics in Bengali display vs Bengali body typefaces

The table below offers a comprehensive understanding of the visual characteristics and how they differ between Bengali display and body typefaces:

Characteristics	Body Typeface	Display Typeface
Stroke Variation	Restrained stroke contrast	3 stroke categories: - calligraphic, consistent line, variable stroke
Matra (Top Horizontal Line)	Consistent & well-defined	Culturally inspired ornamentation
Spacing & Complexity	Minimal ornamentation	Higher visual complexity & density
Letterform Structure	Faithful to traditional forms	More opportunity to experiment & stylize
Counter & Aperture	Open counters for higher legibility	Smaller counters, potentially variable stroke width
Aspect Ratio	Optimized spacing, along with balanced & consistent height	Wider in aspect ratio due to wider horizontal proportion
Conjunct Characters	Subdued, simplified forms	More complex, compact character combinations
Design Philosophy	Designed for extended reading & daily use	Designed for visual impact, to garner visual interest
Legibility Consideration	Prioritizes legibility	Balances legibility with emphasis, and hierarchy
Typographic influences	Tool-derived (e.g.: character punches, linotype, etc.)	Cultural and artistic interpretation

| Target Audience | Universal readability | Designed for script-familiar audiences |

Table 2. Comparison of visual characteristics between Bengali display and body typeface

4.2 Visual History of Bengali Display Typefaces:
exploring film posters, magazines, and children's periodicals

This section traces the journey of exploration in Bengali typography from the 1940s to roughly 1975. The time frame chosen for this analysis specifically targets the period following the 1940s. The reason for this selection is twofold.

Firstly, it coincides with the flourishing of commercial typography in Bengal, a development significantly influenced by the multifaceted artistry of Satyajit Ray. Secondly, the limited availability of pre-1940s Bengali posters and books necessitate focusing on material post then with more accessible source materials.The 1940s represented a transformative period in Bengali design, marked by emerging talents like Satyajit Ray, Annada Munshi, and Oroon Coomar Ganguly who pioneered a distinctive "Bengali look & feel" in commercial graphic design (Mohammad Shahid, 2014). Building on the shoulders of such pioneers, Ray's typographic journey began in film posters thus establishing a legacy of playful exploration that inspired the outcome of this project.

Starting with *Pather Panchali* (1955), where hand-drawn, inconsistent letterforms with varied stroke widths created an intimate visual narrative evoking a sense of rustic simplicity aligning with the setting of the film.
His approach extended to establishing visual connections between typography and film themes, using letterforms to reflect narrative settings and audience connection.

For film posters like *Devi*, *Kanchenjunga,* and *Mahanagar*, Ray demonstrated remarkable typographic prowess. *Devi* utilized bold red lettering with the use of flourishes and ornamentation evoking the decorative elements found in temple architecture to signify religious superstition, *Kanchenjunga* employed angular lines mimicking mountain terrain, and *Mahanagar* featured blocky letterforms resembling an urban skyline, each typographic choice strategically enhancing the film's contextual narrative.

Ray's typographic experiments continued evolving, influencing contemporaries like Subodh Mitra. Riwik Ghatak, and Tapan Sinha. In Subodh Mitra's *Grihadaha* (1967), the sharp angular script extensions potentially symbolized marital tensions in the film. Ray's *Goopy Gyne Bagha Byne* (1969) showcased playful typography with bold swashes and curved flourishes, reflecting the film's fantastical essence through inconsistent letter heights and dynamic stroke variations.

Figure. 9 Film posters from Satyajit Ray and his contemporaries

Beyond film titles, Ray revived his father Sukumar Ray's children's literary magazine *Sandesh* and illustrated covers for *Ekkhon*, further exploring typographic experimentation and play.

His typography consistently demonstrated an ability to transcend mere visual communication, transforming letterforms into narrative devices that communicated emotional and thematic nuances which was instrumental to understanding the characteristics required to create the outcome.

Figure. 10 Some Magazine covers of *Ekkhon* that Ray worked on

Figure. 11 Some Magazine covers of *Sandesh* that Ray worked on

4.3 Decoding the nonsensical world of *Hojoborolo*

Ray's The book's title *Hojoborolo* is a strong indicator of the rife influence of absurdity within the narrative. A literal translation of the title would reveal its meaning as 'a ridiculous mess' since the arrangement of the letters is not in order of the alphabet (হযবরল).

Decoding 'nonsense' would require us to understand the characteristics of absurdist literature. Adult absurdist works often delve into existential despair, and this can often be quite bleak and disorienting. Conversely, children's literature incorporates these elements in a playful and light-hearted way.

The nonsensical situations and illogicality serve to entertain and encourage a child's imagination, rather than evoke existential dread. The overall tone remains optimistic and engaging, inculcating a sense of wonder and curiosity about the world. Famous examples include the nonsensical conversations and illogical scenarios in Lewis Carroll's "Alice's Adventures in Wonderland" or the chaotic, yet humorous world Dr. Seuss creates in "The Cat in the Hat."

Both Sukumar Ray's *Hojoborolo* and Lewis Carroll's 'Alice's Adventures in Wonderland' establish a sense of isolation and a gateway to a fantastical world through similar opening scenes. *Hojoborolo* takes the protagonist into a world of whimsical absurdity. A handkerchief transforms into a talking cat which then immediately disappears, launching him on a journey where he encounters fantastical beings like a timekeeping raven and a jester known as *Hiji-bij-bij*.

The concept of metrics becomes malleable with the protagonist's age listed as 26 inches, weight as 2.5 acres, and price 37 years. This example showcases the defiance of natural laws that frame the world and introduces elements of whimsy, absurdity, and playfulness.

The work's core attributes — whimsicality, fluidity, exaggeration, and rhythmic storytelling are derived from:

- Fantastical creatures
- Non-linear storytelling
- Unusual conventions in the world and the society
- Socio-political commentary
- Detailed, amusing, and exaggerated illustrations

These attributes not only entertain but also invite the audience to explore alternative perspectives on reality, encouraging creative thinking and imaginative engagement.

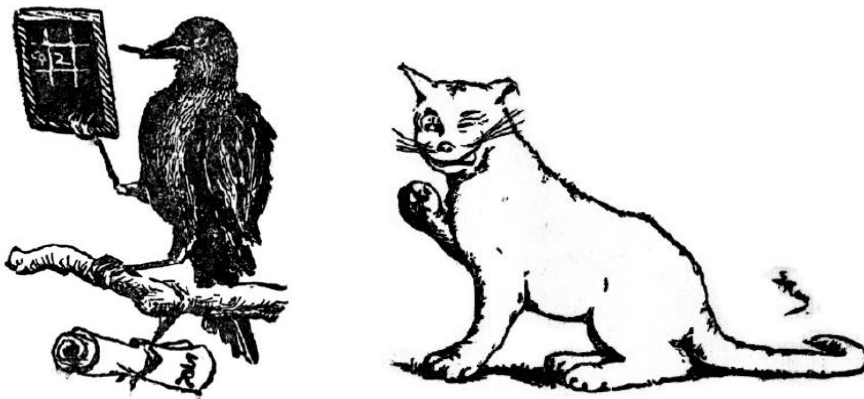Figures 12 and 13 show some examples of character illustrations from the book:

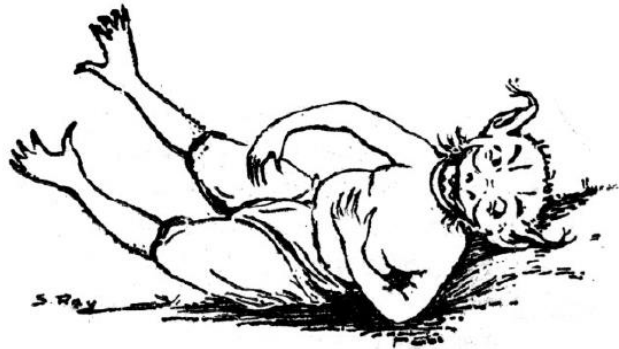Figure. 12 Characters from *Hojoborolo* – a timekeeping raven, and a talking cat born from a hanky

Figure. 13 Characters from *Hojoborolo* – *Udho* – an old man with a green beard, *Hiji-bij-bij* – a character who speaks in a gibberish language and laughs tearfully constantly.

Following this observation, the keywords that stood out inform the characteristics of the outcome, a display typeface:

- Whimsicality
- Playfulness
- Fluid
- Exaggeration
- Rhythmic

5. Creative Brief

A thorough research and analysis led to a cohesive creative brief that would help me keep in mind the composition of these letterforms as I explored and experimented with different shapes, forms, structures, and styles.

The project sought to develop an innovative Bengali display typeface that critically translates the literary concepts of nonsense and whimsy from the novella *'Hojoborolo'* into a visually compelling typographic form. The objective was to create a typeface that captures the novella's playful essence through a nuanced visual interpretation while maintaining creative expression and typographic legibility.

6. Finalising the Style

Based on the research findings and observational analysis, the project advanced to the development phase exploring and refining letterform variations. The primary objective

was to develop characters that maintained optimal readability while aligning with the key characteristics of their traditional script forms.

The emphasis was on creating letterforms that conveyed a sense of movement and playfulness, reflecting the childlike perspective central to the novella's narrative structure.

This phase of design exploration focused on expanding the conventional boundaries of Bengali letterform structures and their fundamental elements. Initial experimentation focused on deconstruction and reconstruction, various typographic elements were manipulated - including stroke width variations, thickness modulations, and the interplay between condensed and expanded forms.

The process aimed to imbue the letterforms with distinct personalities reminiscent of children's book characters, achieved through exaggerated features and modified apertures and counters, creating subtle facial characteristics within the letterforms.

Through an iterative design process documented in the following figures (14, 15, 16, 17, 18, 19), these conceptual explorations ultimately led to the development of the final typeface.
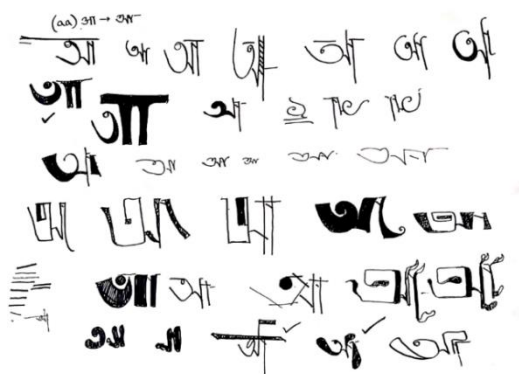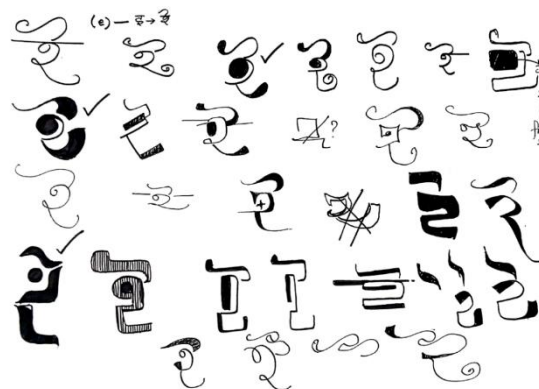

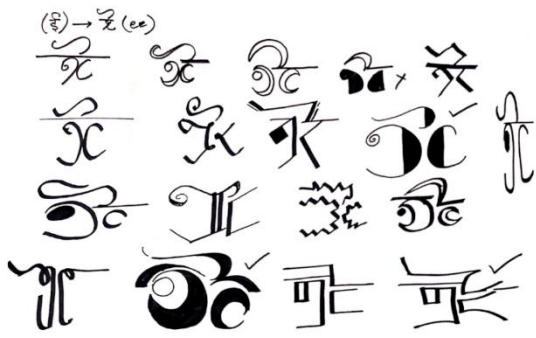Figure. 14 Explorations of 'অ'   Figure. 15 Explorations of 'ই'
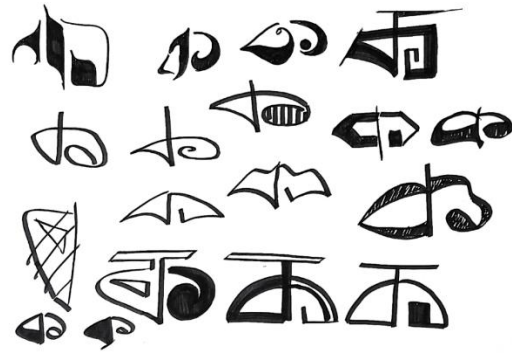
Figure. 16 Explorations of 'ঈ'
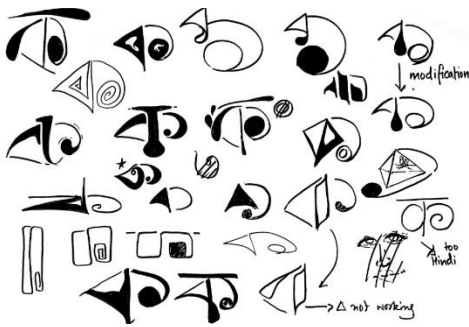

Figure. 17 Explorations of 'ক'

Figure. 18 Explorations of 'ক'

Figure. 19 Explorations of a previously selected style

The first set of alphabets in a previously selected style (as shown in figure 19) incorporated several target characteristics including exaggerated features and unconventional forms. However, despite aligning with these keywords, the resulting typeface exhibited an overly rigid and structured appearance that failed to convey the whimsy and fluidity. This led to a pivot, and a embrace a more organic approach showcasing softer and more rounded forms that feature intentional non-uniform features across dots, triangles, counters, and apertures.

The final, refined approach utilised globular shapes and contours to showcase fluidity, whimsy, and playfulness successfully capturing the essence of animated characters while maintaining its primary function as display text.

The resulting typeface strikes a balance between whimsical expression and typographic function, crafting letterforms that dance off the page while serving their essential display purpose, as detailed in the following rationale.

7. *Hiji-bij-bij*: A Bengali display typeface

This typeface Hiji-bij-bij creates a visual rhythm, with each character dancing to the beat, their forms as fluid and fantastical as the creatures that cavort through the pages of the book. The letterforms are designed with fluid, fantastical qualities that mirror the whimsical creatures populating the original narrative.

Each twist and flourish beckon the reader to step into a world of boundless imagination, where the letters themselves morph into characters from this whimsical realm. Playful flourishes and exaggerated forms become a mirror reflecting the limitless possibilities that may blossom within the mind.

Figure. 20 Final typeface – *Hii-bij-bij*

Figure. 20 Spelling the word *Hii-bij-bij* in the typeface

8. Conclusion and the Way Forward

This study highlights the opportunity to explore Bengali display typefaces, which, despite their variety in vernacular font libraries, remain underrepresented from major platforms like Google Fonts and Adobe Fonts, limiting their exposure beyond vernacular contexts. Through my exploration of Bengali film titles and book covers, it became clear that there is immense scope for experimental display typefaces, not only in Bengali but in other Indian languages as well. India's rich linguistic and cultural heritage offers abundant inspiration for designers, and it would be exciting to see more Indian scripts represented through creative, experimental approaches.

As for this project, I plan to refine the typeface further by expanding its character set to include numerals, punctuation, and conjuncts. Transforming these letterforms into downloadable glyphs is another goal, alongside exploring other Indian scripts in future projects. Personally, and professionally, this project has been a significant learning experience and I hope this paper contributes to ongoing conversations about Indian-type design and inspires further exploration in this field.

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