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Ik Onkar Gurmukhī (ੴ ਗੁਰਮੁਖੀ): Decoding Culture-Form Associations in Writing practice

Author: Nanki Nath, School of Design, Dr Vishwanath Karad MIT World Peace University, Pune, India, nanki.nath@mitwpu.edu.in

Abstract: Indic scripts have been the hallmark of cultures, speech, languages and identities. Gurmukhī letters represent the Punjabi culture, heritage and the history bygone that laid fertile grounds for the birth as well as the evolutions of this script. This research aims to decode the script-based, language-based and history-based associations as a passion project called ‘Ik Onkar Gurmukhī.’ The writing practice includes a rigorous method to write each of the paintī (35: ੴ) Gurmukhī letterforms and sharpen the hand’s muscle memory. The visual features of all letterforms have been mapped within a personality-mapping model including the four emerging categories from the writing practice: a) Shared Features [SF], b) Conflict Features [CF], c) Expressive Features [EF] and d) Aesthetic Features [AF]. This writing practice acts as a guide to take forward the visual features of letters falling under the identified categories to explore form possibilities for a display type design in Gurmukhī.

Key words: *Gurmukhī script, Punjabi culture, Sant bhasha, Letter Constructions, Writing practice, Manuscript style, Visual features, Type Forms, Indic Type Design*

1. Gurmukhī script and ‘Ik Onkar’ (ੴ ਓਅੰਕਾਰ) Philosophy: the Ancient Beginnings

Letters are foremost seeds of a certain culture. Gurmukhī akhars/letters uttered from the mouth of a ‘Guru’: signify the Punjabi culture and heritage. In the *Linguistic Survey of India*, Landa was considered a “true alphabet of the Punjab” (Grierson, 1916).

According to Tarlochan Singh Bedi, the Gurmukhi script developed during the tenth-fourteenth centuries from the *Devasesha*³ stage of the *Śāradā* script (Gurmukhi Lipi da Janam te Vikas, Punjabi University, 1999). This form of *Gurmukhī* was used in writings of the Holy Guru Granth Sahib ji and on the golden facades of Harmandir Saheb, the Golden Temple (Figure 3).



Figure 3. The extended version of the *Mūl Mantar* at the Darshani Deori: the main entrance leading to the pathway into the Golden Temple (3a), [Sri Guru Nanak Dev ji painted portrait](#) (3b) | Source: vedictribe

*Ik Onkar*⁴ is the opening phrase of *Mul Mantar*, presented as the opening phrase in the *Guru Granth Sahib* (Table 1). Further on, the *Mul Mantar* is also at the beginning of *Japji Sahib*, followed by 38 hymns and a final *Salok* by Guru Angad at the end of this composition (Rahi, 1999; Chauhan, 2005; Beck, 2006 and Nesbitt, 2018).

“ਇੱਕ ਓਅੰਕਾਰ” ਮੂਲ ਮੰਤਰ ਜਪ	Transliteration	Translation
ੴ ਸਤਿ ਨਾਮੁ ਕਰਤਾ ਪੁਰਖੁ ਨਰਿਭਉ ਨਰਿਵੈਰੁ ਅਕਾਲ ਮੂਰਤੀ ਅਜੂਨੀ ਸੈਭੰ ਗੁਰ ਪ੍ਰਸਾਦੀ ॥ ਜਪੁ॥ ਆਦਿ ਸਚੁ ਜੁਗਾਦਿ ਸਚੁ ਹੈ ਭੀ ਸਚੁ॥ ਨਾਨਕ ਹੋਸੀ ਭੀ ਸਚੁ॥	<i>ikk(u) ōaṅkā(u) sat(i)-nām(u)</i> <i>karatā purakh(u)nirapā'u niravair(u)</i> <i>akāl(a) mūrat(i) ajūnī saipān</i> <i>gur(a)-prasād(i) ॥ jap(u) ॥</i> <i>ād(i) sacch(u) jugād(i) sacch(u) ॥</i> <i>hai pī sacch(u) ॥</i> <i>nānak(a) hoṣī pī sacch(u) ॥1 ॥</i>	This Being is one, truth by name creator, fearless, without hatred, of timeless form, unborn, self-existent, and known by the Guru's grace.

Table 1. *Mūl Mantar* philosophy as a *Japji Sahib* (verse form)

³ Indian epigraphists call this stage *Devasesha*, while Bedi prefers the name *Pritham Gurmukhī* or *Proto-Gurmukhī*.

⁴ *Ik Onkar* (ੴ) is a Gurmukhi symbol that is often used in Sikh literature. It literally means "One God." New World Encyclopedia

2. Gurmukhī Lipi and the Writing Practice

The Gurmukhī Lipi includes a total of paintī (35) letterforms and the proto script form has a total of (Gurmukhi complete traditional Varnamala, Figure 4a; Gurmukhi Unicode Chart, Figure 4b). Based on the traditional character set of paintī (35: ੴ) Gurmukhī letterforms, the correct writing sequence was applied to develop chain-like continuous lines of each letterform/ akhar.

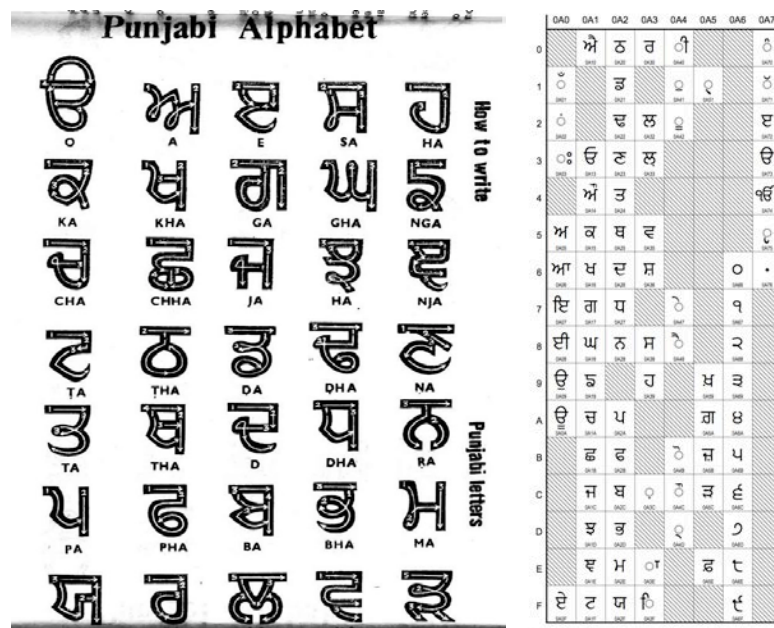


Figure 4. The traditional painti akhars / 35 letters in Gurmukhi script (4a), the Unicode complete character set of proto-gurmukhi having a total of 48 letterforms (4b) | The Unicode Standard, Version 13.0

2.1 Manuscript-style Writing Practice: Selections and Synthesis for Ik Onkar project

The choice of traditional chain-like and modular grid inclusive manuscript writing scroll forms were an instrumental offspring from the old manuscript-style specimens of writings of hymns, etc. in Gurmukhī as part of Punjabi scriptures as well as few symbolic references from The Granth Sahib pages. The context here is based on historical evolutions of the script in manuscripts and applying for the current passion project.

- The Manuscript style has a long history in case of the 500-year-old Gurmukhī script and later researchers in 20th century times have shared cues that Gurmukhi script was developed by showcasing some of the earliest Sikh manuscripts including the Guru Harshai Pothi and Govindwal pothis of 16th CE (Mann, 2008), Figure 5.



Figure 5. The continuous, modulated letterforms of Gurmukhi as part of The Guru Granth Sahib (5a) and [traditional pothi written script scrolls](#) (5b) | Mann (2008) | Source: Sikhnet.org

- Her aim has been to achieve rigorous practice of correct stroke formations, understand letter constructions in a continuous, manuscript style and increase the muscle memory of the hand in relation to proportionate, balanced letter shape constructions in smaller sizes of modulated, continuous writing with different tools (Figure 6).



Figure 6. The continuous, modulated bi-colour chains of Gurmukhi writings in Illuminated Guru Granth Sahib, [ca. 19th century Suresh Bhalla collection](#) (6a) and red-black uniform gurmukhi writing from [Ch 3, Bhagawad Gita in Punjabi script](#): [CC-0 Punjab University Chandigarh](#)

- The writing composition by the author for her writing practice of each akhar in chain-compositions, written with different tools and ink hues has been a deliberate composition style (Figure 7 to Figure 11: in sections 3.1 and 3.2).
- This later helped select the most appropriate letter shapes that were further digitized in Tayasui app (an iOS app) for churning out form possibilities with letters (Figure 12 and 13, section 3.2).
- The baseline grid of the horizontals in the notebook retains the left to right flow of each letter construction and the simulation/ repetitions help create a modular letter composition for each letterform (Figure 7).

- In each composition of individual letterforms; a predisposed distribution of letters written with different tools is a deliberate choice in the practice.

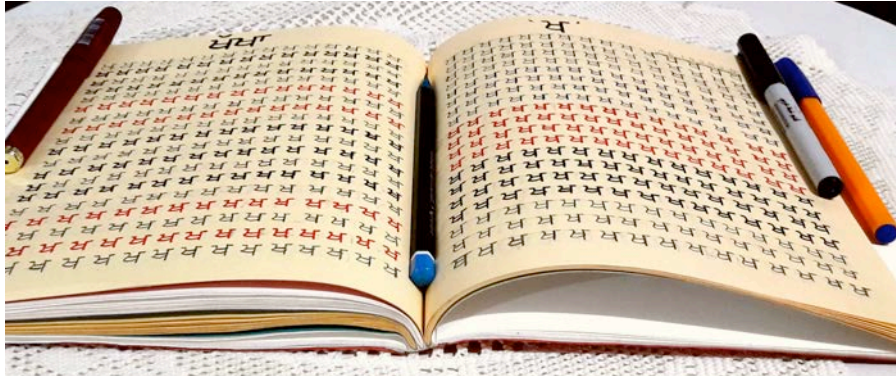


Figure 7. Practice spread of the Gurmukhi akhar ਖ (pronounced kha'khaa: ਖੱਖਾ) in continuous, modular grid and executed with pencil and ink-based tools as part of Ik Onkar passion project

3. Culture-Form Associations

3.1 Individual Letterform Chains: Synthesis and Analysis

Each letterform's horizontal manuscript-style composition has a co-relation with script-based and language-based associations embedded in the written Punjabi script forms - the same has been articulated as individual descriptions to present the design synthesis of each gurmukhi akhar that provides form possibilities for beginnings of a type design project for future.

Punjabi is a tonal language with three tones. These are indicated in writing using the voiced aspirates consonants (gh, dh, bh, etc.) and the intervocalic h. This comes across for few letterforms.

The practice has helped retain the correct methods of stroke formations and modulations, nature of the structure and composition of parts of letters, their joineries, etc (Figure 8a and 8c).



Figure 8. Practicing Gurmukhi akhar ਕ (pronounced ka'kaa: ਕਾਕਾ (8a); a page from a Janamsakhi that is decorated in the provincial Kashmiri style of manuscript illustration. Courtesy: sikhmuseum.com (8b); Practicing Gurmukhi akhar ਖ (pronounced kha'khaa: ਖੱਖਾ), (8c)

3.2 Categorization in the Ik Onkar Series

These manuscript-kind dense compositions in writing practice represent a connection of the letter's form and it's sound image. This made the design practice a meditative, process-centric activity to fine-tune form-content relationships and receive insights about the cultural associations with Punjabi language (verbal and written meanings). Most among the 35 akhars belong to two categories; prominence of one may be more dominating than the other (section 4.1).

Following four categories emerged in the meditative writing practice:

- **Shared Features [SF]:**

In writing (the letter formation) as well as sound-wise, there are few letterforms in

Gurmukhi that resemble those in the Devanagari script; making this a category of

Shared Features [SF]. For instance, 'Ga'gaa' / ਗਾ resembles Devanagari गा (Figure 9).



Figure 9. Writing Practice of 'Ga'gaa' / ਗ resembles Devanagari ग

- **Conflict Features [SF]:**

In addition, there are few letters in Gurmukhi that are visually same as those in Devanagari, but differ in sound. Both sound and form-wise, it's harder to recall and retain their correct sound image and hence, the form while writing. This second category has been observed as 'Conflict Features' [CF]. For instance, 'Sa'saa' / ਸ resembles Devanagari स and 'Ka'kaa' / ਕ that resembles Devanagari क (Figures 10 and 11).



Figure 10. Writing Practice of 'Sa'saa' / ਸ that resembles Devanagari स



Figure 11. Writing Practice of 'Ka'kaa' / ਕ that resembles Devanagari क

- **Expressive Forms [EF]:**

The manuscript style written compositions of few other sets of letters make understand the significance of visual expressions in the letter formations. For instance, gurmukhī. the fifth letterform (akhar) in "haa'haa" / 'h' as in home. The wit of ਹਾਹਾ: both in visual form and pronunciation represents an equal emphasis over both syllables that are pronounced so that when is the happy-go-lucky: ਹ -- ਹਾਹਾ spoken there is a puff of air felt when the hand is held in front of the lips. The Romanized spelling of Haahaa is phonetic and may also appear spelled as Haha (Figure 12).



Figure 12. Writing Practice of 'Ka'kaa' / ਕ that resembles Devanagari क

- **Aesthetic Forms [EF]:**

A binary opposite to such sets are those individual letter set chains that communicate a distinct aesthetic and letter construction stylizations. For instance, the fourth letterform (akhar) in ਸ is a stylized & condensed ਸ of the Devanagari script. The knot of the Devanagari स has been pulled down to resemble an exaggerated teardrop terminal in the gurmukhī ਸ (Figure 10). This transformation of the knot to a teardrop terminal that almost touches the baseline with the stem of ਸ is indicative to a novice too that there's some distinction between these similar looking type forms. Another beautiful and striking letterform is that of ਏ / ਈੜੀ / Ee'rhee e' as in 'energy' (Figure 13).

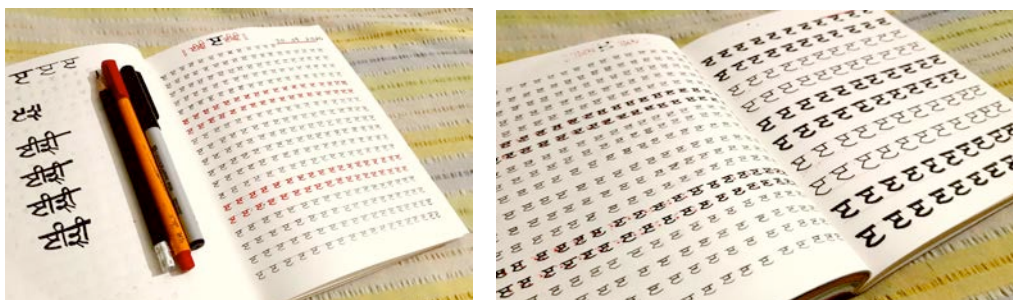


Figure 13. Writing Practice of ਏ / ਈੜੀ / Ee'rhee: sharp, energetic, disciplined in structure.

4. The Personality Mapping: Ik Onkar Model formulation

4.1 Four Categories and the 31 Gurmukhi akhars: the basic parts and functions

Out of 35 akhars, a total of 31 akhars could be mapped with respect to EF, AF categories / groupings (on x-axis) and SF, CF categories / groupings (on y-axis). Purpose behind a grouping is to extract similarities and differences. Hence, the categories have been named as bipolar units of FORMS and FEATURES (Figure 14).

- FORMS: involve letter structures as a whole.
- FEATURES: involve parts that make the whole.

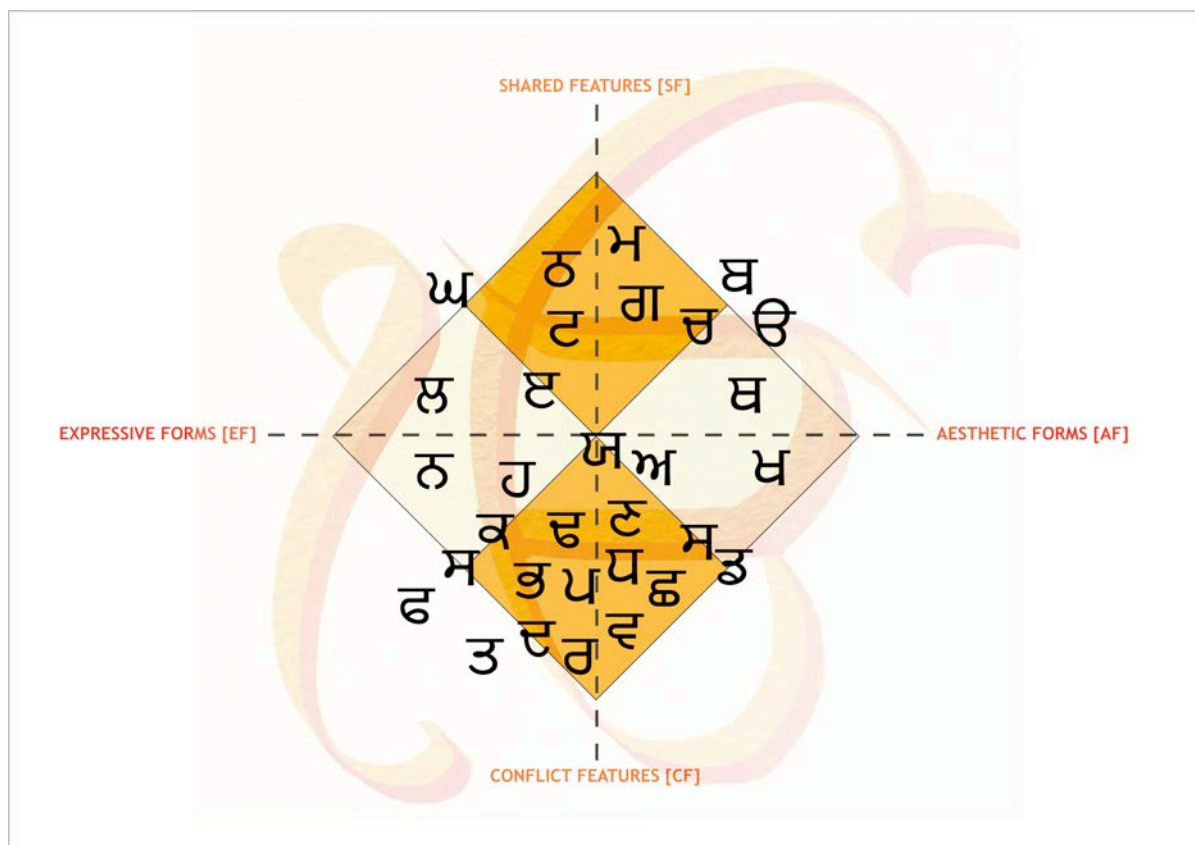


Figure 14. Ik Onkar Gurmukhi mapping model

4.2. Insightful leads with respect to Type Design

- FORMS: The letterforms that are enclosed within the rhombic boundaries of both Form categories are those that are only within either of these categories. The ones on boundaries of the rhombic edges also belong to either of the Features categories. For instance, ਕ, ਫ, ਝ akhars become one set for form explorations in display. They share a common feature of the knot/ closed counters in different parts of their letter anatomical constructions.

However, there are some forms that are purely either expressive (ਲ, ਨ) or aesthetic ones (ੳ, ਬ) and (ਬ, ਖ).

- FEATURES: There are some striking, visually dynamic letterforms that are at the intersections of both features and forms - making them represent duality in form and language, meaningfully (ਅ, ਘ) and (ੲ, ਯ, ਚ)

4.2 Digitizing few selective akhars

The writing practice sheets gave the most balanced written letterforms for each of the 31 akhars explored as an extension to the personality-mapping model; with the aim to evolve display forms from letter shapes practiced (Figures 7 to 13). Following are the beginnings of the first three akhars explored with display features and three-dimensional structural facets (Fig. 15). The main letter colours and the background are a deliberate choice to match the yellow/ old-feel look of the papers in notebooks that represent writing practice and compositions per akhar. These have been digitally executed and rendered for specific textured effects by using iOS app: Tayasui (see selective first phase explorations, Fig. 16).

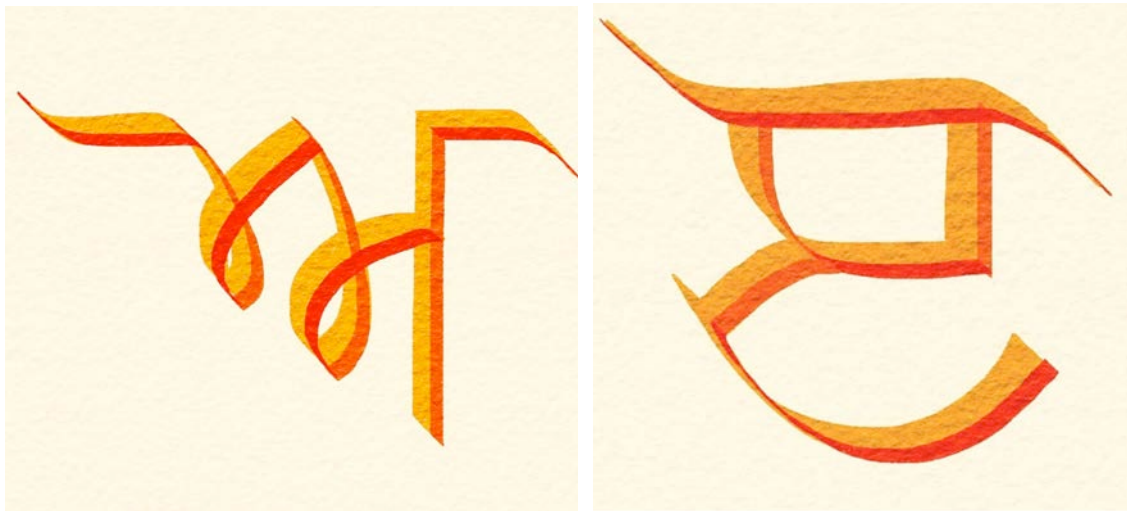


Figure 15. Beginnings: three-dimensional display character design for Ik Onkar series



Figure 16. Beginnings: exploring chromatic display type possibilities for Ik Onkar series

5. Conclusions

The passion project started with an objective to learn Punjabi language and how to write the letterforms for improving written language needs to communicate with other fellow Punjabi friends and family members.

However, the manuscript-style and the effortlessly meditative practice of chain compositions gave the project a much-needed and distinct type design context. Indigenous, yet multi-functional script kinds - Gurmukhi in this project and long-term research study open up new possibilities to design typefaces/forms that narrate a cultural essence, philosophy and meaning in an emotive, personalized ways. The personalisation adds to new kind of experiments with both FORMS and FEATURES as part of the Ik Onkar Model.

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Dedicate this research paper to my Late Brother, Dr. Kunwar Vikram Singh Dhaliwal, 1982 - 2019 (MD, M.B.B.S, Eye Surgeon) whose devoted work and life has been an inspiring force and a future ray of hope for me to carry forward this research-centric passion project.

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Image Credits

Figures 7 -14: Courtesy of Nanki Nath Personal Archives of Manuscript-style Gurmukhi letterforms Writing Practice

Figure 16: First-phase glyph explorations for selective Gurmukhi letters from the personality mapping model of Fig. 15