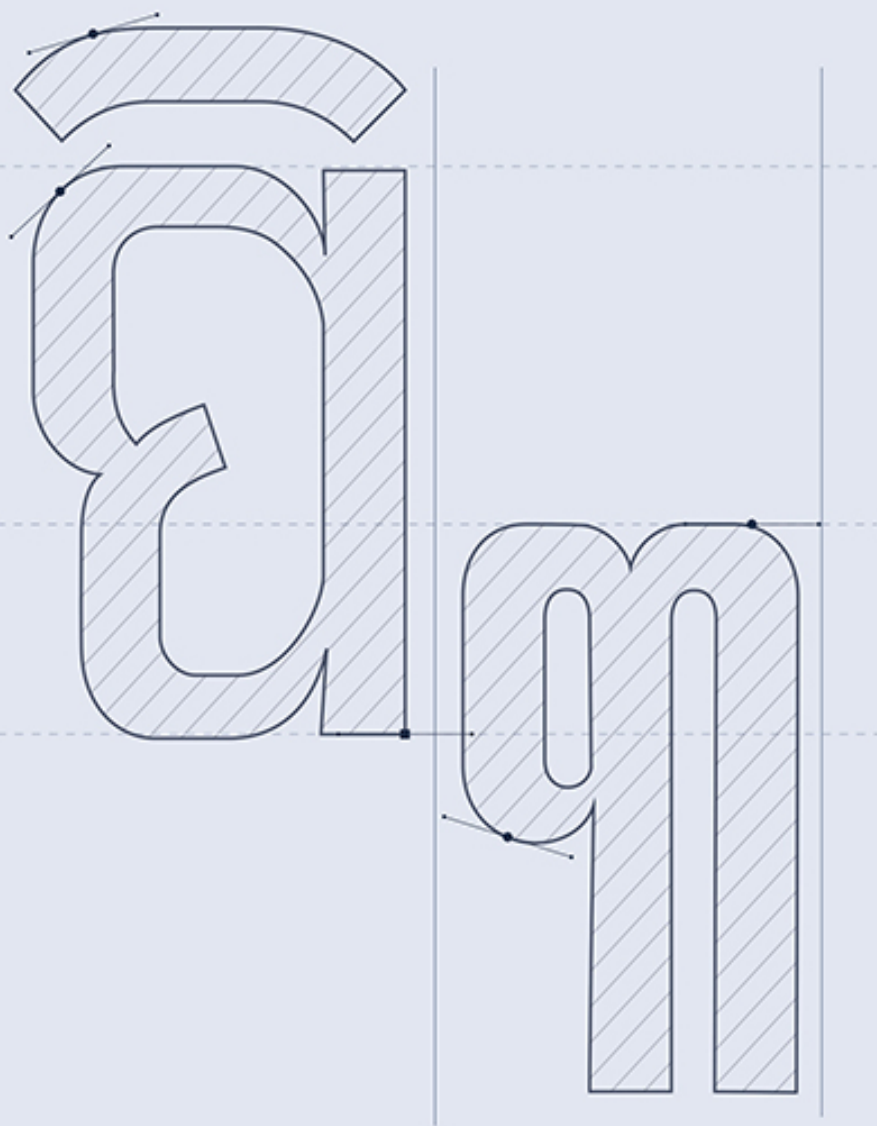


P3 Design Project

Designing an Odia display font for headlines

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Designing an Odia display font for headlines

P3 Project Report

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2. Aim and Objectives

2.1. Aim

The aim of the project is to design an Odia display font for Headlines

2.2. Learning Objectives

The project focuses on two objectives

- To expand my knowledge of font design acquired during my P2 project.
- To further explore the script and the language along with the intricacies of the letter-forms taking forward the knowledge acquired from my previous project.

3. Font Terminologies

3.1. What are Display Fonts

Display fonts are the fonts which are often intended for use at larger sizes. These are generally used in sizes 14 and above in headings and titles. Walter Tracy, once described display type-faces as text that “when enlarged can be used for headings... if reduced, cannot be used for text setting.”

They are usually seen as unsuitable for the clarity needed for body copy because of their varied form. Their feature sets are often detailed & variable which make them unfit for use in the smaller sizes, on the other hand their individual and prominent forms can entice readers & help to create a mood.



Example

Modak



EXAMPLE

Trend Slab

3.2. What are Body Fonts

The body fonts are practically different from the display fonts. They are usually set in a relatively smaller size, somewhere between 9 and 14 points.

ଆହେ ନୀଳଶଙ୍କର ପ୍ରବଳ ମଉବାରଣ,
ମୋ ଆରତ ନଳିନୀବୀନକୁ କର ଦଳନ ।

ଗଜରାଜ ଚିନ୍ତାକଳା ଆଇ ଘୋର ଜଳେଣ,
ଚକ୍ରପେଷି ନକ୍ରନାଶି ଉଦ୍ଧାରିଲ ଆପଣ ।

ଘୋରବନେ ମୁଗୁଣୀକି ପଡ଼ିଥିଲା କଷଣ,
କେତେ ବଡ଼ ବିପତ୍ତିରୁ କରିଅଛ ତାରଣ ।

Noto Sans Odia

The primary requirement in body fonts is legibility, making it suitable for longer texts. In-order to make the body fonts legible, the x height proportions are larger in body fonts. Unlike the display fonts, the forms are also simpler and very less stylization is done to retain the legibility of texts.

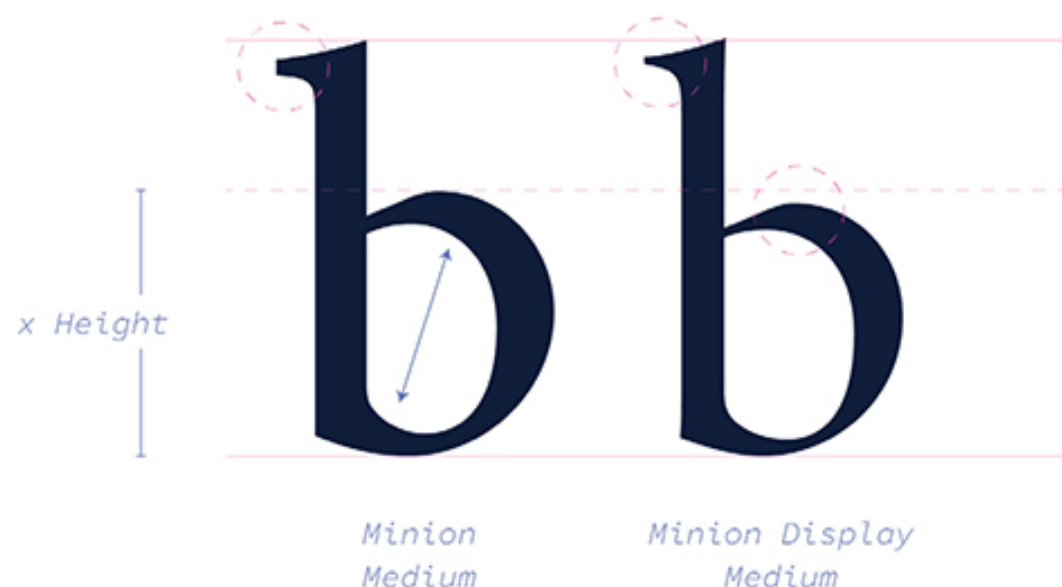
Hinting becomes necessary in body fonts as they are used in even smaller sizes and has the possibility to display incorrectly in not hinted adequately.

3.3. Display vs Body Fonts

The major difference between the display and the body fonts is their proportions. In metal type, almost every point size would have slightly different proportions.

The contrast in strokes would decrease at smaller size for body fonts to help the letters print properly and also retain the desired Grey value. The x-height in body fonts is often made larger to provide wider contours and prevent ink blots at the joinery.

The inter-character spacing is more open in body fonts for better legibility at smaller sizes. The thin parts of a character became proportionally heavier as the point size decreased in a Serif Typeface to prevent 'Dazzling Effect'



4. Headline Fonts

4.1. Purpose of Headline Fonts

The main purpose of a headline font is to catch the attention of the reader. These are also present to set the tone of the entire piece of work, which creates intrigue and make the content appealing to the reader.

Headlines have the capability of making the content look more urgent, relevant, essential and worth reading as shown in the figure below.



Headlines generally consist of a few words, the impact is supplemented by the headline font. The headline fonts are not excessively special but when used properly, they have the capabilities to create different sensation among the readers of the text.

4.2. Desired Characteristics of Odia Headline Font

Like an usual headline font, an Odia headline font have to catch the attention of the reader. It should have a character that is designed for their purpose.

It must be properly spaced or kerned properly and must be easily readable. It should show some level of contrast to help in creating emphasis. It should be designed in a way that would occupy the least amount of space if the space is limited.

It should have flexibility in terms of width to fit in certain limited space. It should also have sufficient amount of weight to make it distinguishable when used between long texts.

5. Existing Headline Typefaces

5.1. Headline Typefaces in Latin

**Playfair
Display**

**Butler
Display**

Miller
Display

Poynter
Display

Mercury
Display

Bodoni
Display

Gotham

Swis721

**Bebas Neue
Pro**

**Futura Bold
Condensed**

Knockout

**Benton
Sans**

**Franklin
Gothic**

**Helvetica
Condensed**

5.2. Headline Typefaces Devanagari

राजधानी

बलू २

पोप्लिंस

एवंड

तेको

मादक

5.3. Headline Typefaces Odia

**ନୋଟୋ
ସାଂସ**

Noto Sans Odia

**ବନ୍ଧୁ
ଭାଇନା**

Baloo Bhaina

ଅକ୍ଷୟ ଓଡ଼ିଆ

Akhand Odia by ITF

6. Odia Headline Fonts in use

6.1. Headline Samples from Odia Daily

Odia newspapers have been an excellent source to analyze the headlines in Odia script as they provide vivid examples of use case scenarios of the script. The other reason why these newspapers are a great source is the limited space of the newspaper. This constraint factor makes the condition an idea use case scenario for the headline fonts.

For the purpose of this projects, headline samples from 5 different Odia newspapers have been collected, namely- 'The Samaja', 'Sambad', 'Dharitri', 'Pragativadi' and 'Pramaya'



ସପ୍ତାହେ ପୂର୍ବରୁ କିଣାଯାଇଥିବା ଧାନ ଖୋଲା ଆକାଶ ତଳେ ପଡ଼ିଛି

ଲକ୍ଷନପୁର, ୨୩।୧(ଆପ୍): ସମସ୍ୟା ଘେରରୁ ମୁକୁଳି ପାରୁନି ଅନୁଦାତା। କେତେବେଳେ ଉପରବାଲା ତ କେତେବେଳେ ତଳବାଲାଙ୍କ ଉପେକ୍ଷା କାରଣରୁ ଅଣନିଶ୍ଚାସୀ ହୋଇ ଭାଗ୍ୟକୁ ଆଦରି ବସିଛି। ଏଭଳି ଏକ ସମସ୍ୟା ଭିତରେ ଛନ୍ଦି ହୋଇପଡ଼ିଛନ୍ତି ୧୯ ଖଣ୍ଡ ମୌଜା କଣ୍ଠେଇକେଲା ପଞ୍ଚାୟତର ଚାଷୀ। ଏଥର କିନ୍ତୁ କେବଳ ଚାଷୀ ନୁହେଁ ସେମାନଙ୍କ ସହିତ ଅନୁପୂର୍ଣ୍ଣା ମିଶନ ଶକ୍ତିର ମଧ୍ୟ ଆଖୁରୁ ନିଦ ହଜିଯାଇଛି। ଯାହାଫଳରେ ଅଞ୍ଚଳର ଚାଷୀଙ୍କୁ ମଧ୍ୟରେ ଅସତ୍ୟୋଷ

କାଳୀ ମିଲର୍ସ ୩୧୦୦ କିଞ୍ଚାଇ, ଦୁର୍ଗା ଏଗ୍ରୋ ୨୩୦୦ କିଞ୍ଚାଇ ଓ ପବନସୁତ ମିଲର୍ସ ୧୦୦୦ କିଞ୍ଚାଇ ଧାନ ନେବାର ନିର୍ଦ୍ଦେଶ ରହିଛି। ହେଲେ ବିଗତ ସପ୍ତାହେ ପୂର୍ବରୁ ଚାଷୀଙ୍କ ଠାରୁ କିଣିଥିବା ପ୍ରାୟ ୧୨ଶହ କିଞ୍ଚାଇ ଧାନ ନେବାକୁ ମିଲର୍ସ ଗାଡ଼ି ନପଠାଇବା କାରଣରୁ ଖୋଲା ଆକାଶ ତଳେ ପଡ଼ି ରହିଛି କିଣାଯାଇଥିବା ସବୁ ଧାନ। ଧାନକୁ ମିଶନ ଶକ୍ତି ଓ ଚାଷୀ ମିଳିତ ଭାବରେ ଦିନରାତି ଜରି ବସିଛନ୍ତି। ଇତି ମଧ୍ୟରେ ଆଜି ଅଦିନିଆ ବର୍ଷା କାରଣରୁ ଚାଷୀ ସମେତ

ଚିକିତ୍ସା ଅଭାବରୁ ଦନ୍ତା ଆଖୁ ବୁଜିଲା

■ ରେବାଖୋଲ, ୦୨।୨୩।୧
ଚିକିତ୍ସା ଅଭାବରୁ ରବିବାର ଏକ ଦନ୍ତାହାତୀର ମୃତ୍ୟୁ ଘଟିଛି। ହାତୀଟିର ବୟସ ୪୦ ବର୍ଷ ହେବ ବୋଲି ଅନୁମାନ କରାଯାଉଛି। ରେବାଖୋଲ ଡିଏପଓ ରମାକାନ୍ତ ନାଏକ, ନାକଟିଦେଉଳ ରେଞ୍ଜ ଅଧିକାରୀ ଅଶ୍ୱିନୀ କୁମାର ବେହେରା, ପରେଷ୍ଟର ସଞ୍ଜୟ କୁମାର ସାହୁ, ପଶୁ ଡାକ୍ତର ପ୍ରମୁଖ ଘଟଣାସ୍ଥଳକୁ ଯାଇ ମୃତଦେହ ଜବତ କରିବା ସହ ଶବ ଧାଉଁଇବା ପଦକ୍ଷେପ ଗ୍ରହଣ କରାଯାଇଥିଲା।



କୁହାଯାଇଛି। ଅନ୍ୟପକ୍ଷରେ ଲୋକଙ୍କ କହିବା ଅନୁସାରେ କିଛିଦିନ ଧରି ହାତୀଟି ଅସୁସ୍ଥ ହୋଇ ଉକ୍ତ ସ୍ଥାନରେ ପଡ଼ିଥିଲା। ଦୀର୍ଘଦିନ ଧରି ହାତୀଟି ଅସୁସ୍ଥ ଥିବାବେଳେ ବନ ବିଭାଗ କିପରି କାଣି ମାରିବା ଦାବି ବୋଧ ହୋଇ

ଇନ୍‌ଷ୍ଟାରେ ୩୦ କୋଟି ଫଲୋଅପ

କାଏଲି ଜେନର ପ୍ରଥମ ପହିଲା



ଓଶିଂଟର, ୧୩।୧
ଆମେରିକୀୟ ମଡେଲ ତଥା କାଏଲି କସମେଟିକ୍ ପ୍ରତିଷ୍ଠାତା କାଏଲି ଜେନରଙ୍କ ଇନ୍‌ଷ୍ଟାଗ୍ରାମ୍ ଆକାରଣରେ ଚାକ୍ ଫଲୋଅପ୍‌ସ୍‌ଙ୍କ ସଂଖ୍ୟା ୩୦୦ ମିଲିୟନ ବା ୩୦ କୋଟି ଚଢ଼ିଛି। ଏତେ ସଂଖ୍ୟାରେ ପ୍ରଶଂସକ କୌଣସି ମହିଳା ସେଲିବ୍ରିଟିଙ୍କ ଫଲୋ କରିବାରେ ଜେନର ପ୍ରଥମ। ଏହି ରେକର୍ଡରେ ସେ ପପ୍ ଷ୍ଟାର ଆରିଆନା ଗ୍ରାଣ୍ଡେକୁ ଚଢ଼ିଛନ୍ତି। ପୂର୍ବରୁ

ରହିଛନ୍ତି। ରୋନାଲ୍ଡୋଙ୍କ ୩୮୮ ମିଲିୟନ ଫଲୋଅପ୍ ଅଛନ୍ତି। ଇନ୍‌ଷ୍ଟାଗ୍ରାମ୍

ବୋଝ ଚାମ୍ପିୟନ, ବେଲପଡ଼ା ରମସ ଅପ



Organized by: BOWAL Football Association, Belpara, Dist. Balasore, Odisha-751022

6.2. Headline Analysis Conclusion

On Analysis it was that- In mos of the newspapers the same typeface was used for the body and for the headlines. The spaces in the newspapers are limited for the news articles as most of the revenue for these newspapers come from the advertisement and hence an ample amount of space is provided for them. Due to this space constraint the headlines are often stretched or skewed to fit in the available space which makes the font look distorted.

Most of the fonts used in the headlines for these newspapers doesn't attain sufficient contrast to make them stand out and catch attention. As most of the news text has to be in black and white to make it cheap the headline contrast from the body text becomes important to grab attention.

The headline fonts used in these samples mostly seem to have minimal or no width variations.

7. Width axis and Headline Fonts

7.1. How the width affect the headline

Newspaper, magazines, blogs have space constraints to minimize the production cost. In most of the cases, the width of the article column defines the width of the headline. It might happen at times the one word of the headline extends beyond

Can this headline be in one line?



Can this headline be in one line?



the length of the article column width. It becomes better to squeeze an extra word in the same line than keeping just one word in the other line which would be wasting a lot of space. This shows the importance of having some variations in the width of a headline font.

7.2. Saving Space with width variation

As seen in the newspaper sample analysis, the headlines are stretched or skewed to match the width of the column which distorts the sentence. The better way to do so is using a typeface that has a variable width axis. This would allow to have some variations along the width axis of the typeface. As seen in the

50 Testing the variable width axis

65 Testing the variable width axis

80 Testing the variable width axis

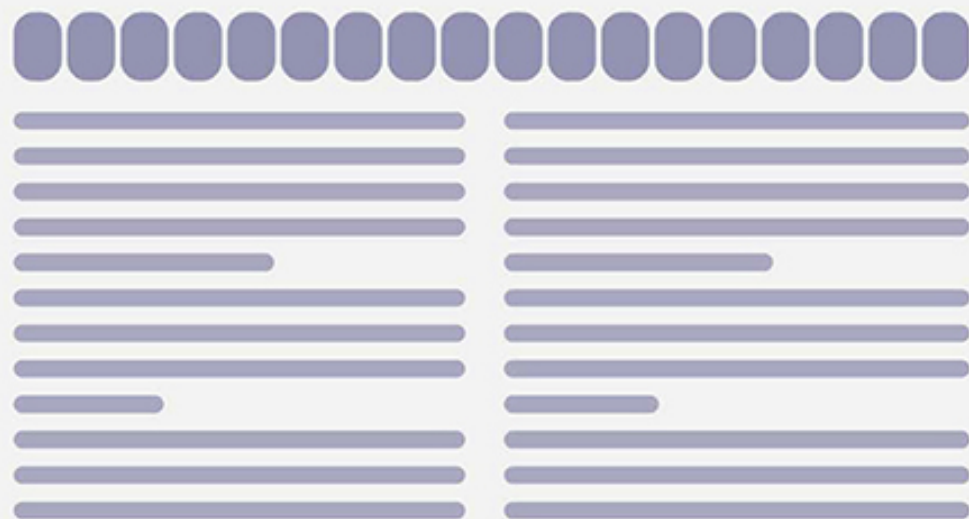
95 Testing the variable width axis

100 Testing the variable width axis

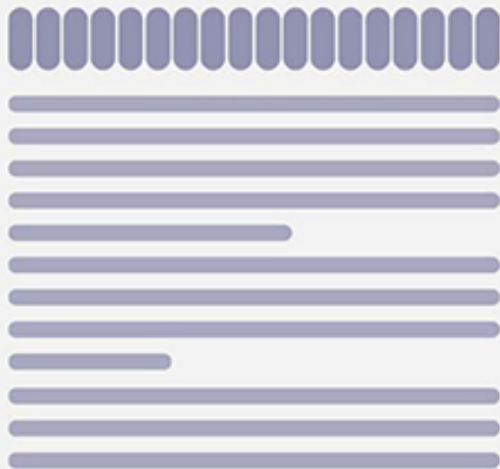
115 Testing the variable width axis

image below, the same sentence is composed in Acumin variable typeface . This allows the headline width to vary with the width of the column. The same is illustrated with the help of three different column widths in the following image.

Testing the variable width axis



Testing the variable width axis



Testing the variable width axis



8. Optical Illusions in Odia Type

8.1. Poggendorff Illusion

When two straight or curved lines cross at a point at an angle the line which is thinner is perceived to shift axis if there is obscuring. This can be seen in the image below. The first of three figures has a continuous line passing diagonally, the second image shows the shift due to illusion and the last one shows the corrected image.



Poggendorff illusion can be experienced in many places in the day to day life one of such areas in fonts. As Poggendorff illusion is an universal phenomenon it can happen across different scripts. In the Latin script it can be found prominently in the letter 'X'.

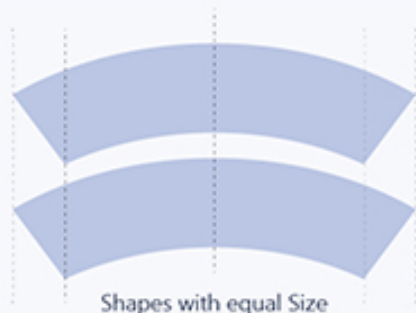
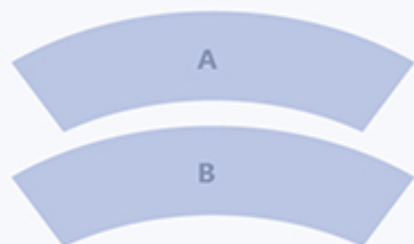
The illusion is independent of the script. The Odia letters also reflect the illusion.



The Odia script has many curves and this illusion can be seen at the places where there are sharp turns. Some of these are illustrated with the help of 'Noto Sans Odia' font.

8.2. Jastrow Illusion

The Jastrow illusion is an optical illusion occurring in the real world in which, two identical arches when kept close to each



other vertically, the lower one appear to be longer than the top arch as shown in the figure below.

The illusion is often seen in the real world. For instance, when two curved toy railway tracks although are identical, lower one appears to be larger when both are kept vertically.

Jastrow illusion can also affect the perceived size of the curves in the characters which have two or more curves.



For example the Odia letter ca have two curves on top of each other. When we look at the sizes based on the position of the curves it can be seen that the larger curve when placed below the circle looks very large compared to when it is placed above the circle.

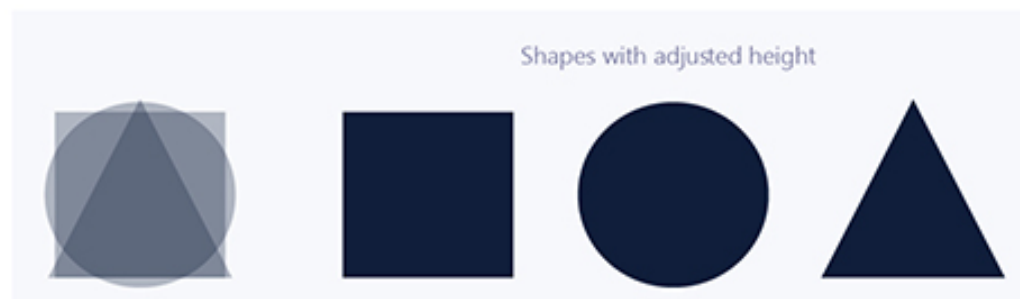
8.3. Muller Lyer Illusion

The Müller-Lyer illusion is an optical illusion that explains about the change in the perceived size of the objects due to the interaction with other objects. (Bach, 2002). The most common example of this illusion can be seen in the change in the perceived length of the lines of equal length due to their interaction with inwards and outwards facing arrow heads (Cherry, 2020).



Two dimensional shapes like squares, circles and triangles are often prone to this illusion when viewed together.

For example, the first image below have the square, the circle, the triangle of equal height, diameter and height respectively,



but when they are viewed together, the triangle looks smaller than the square and the circle look even more smaller.

The optimized sizes of the individual shapes are displayed alongside the image.

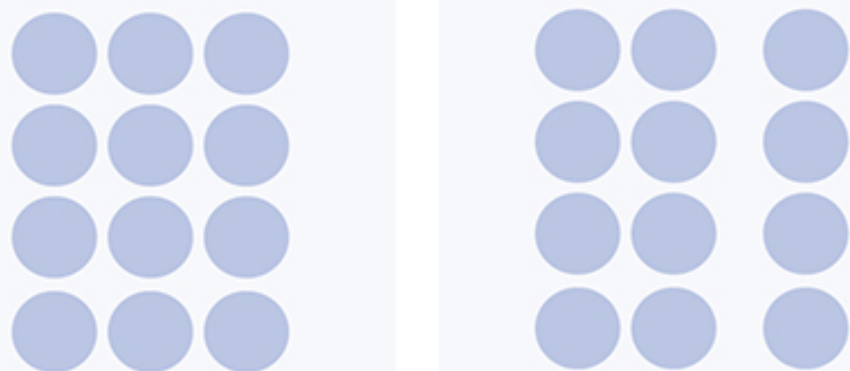
Typefaces, especially the ones in the Latin script are mostly the derivatives of these basic shapes and hence can be associated/ categorized based on them. As demonstrated above, the letters also are prone to the illusion like the shapes above.



This illusion is also visible in other scripts. The Odia script also shows this illusion as it has a curvilinear structure on the top that interacts with the cap height. This is less evident in fonts which have a more boxed form.

8.4. Gestalt Law of Proximity

The human brain tends to group objects base on some visual characteristics, this phenomenon is partly explained by the Gestalt's Law of proximity.



The image above is a basic example of the law of proximity. The circles are kept in a equal distance to each other both vertically and horizontally in the image on the left. In the right image the horizontal distance between the second and third circle in each of the rows is equally increased. This results the brain to form two groups, one of two column and the other of one column.

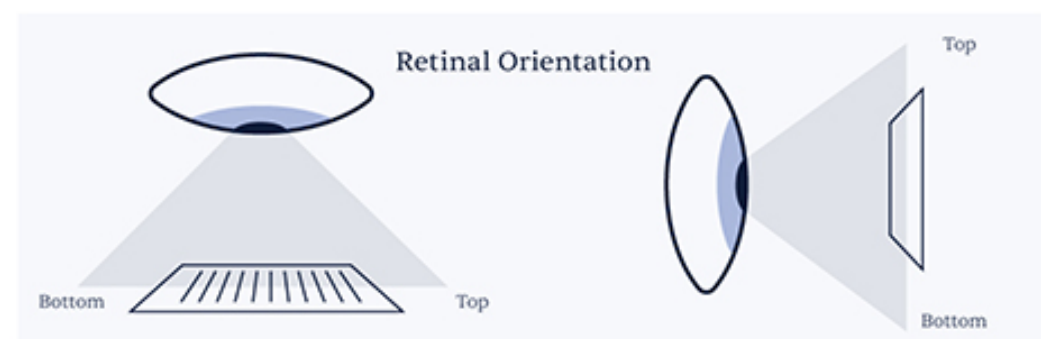
This illusion forms the base of kerning pairs. Let's try to base the kerning on the interaction of the individual letters with a hypothetical vertical line on both the sides. Some letters have fixed vertical line on the right hence that would be their line of interaction. Other letters which have curves would have the farthest right point as the primary interaction line and if the letter would have any additional feature that goes beyond the primary interaction line then the end point of such feature will be the secondary interaction line. Example illustrated below.



8.5. Balance Top and Bottom

The world functions in a way that everything is pulled down by the force of gravity. Going against gravity i.e. going up is perceived as powerful. This even stands true when we look at the visual placements of things. When we see similar things, the things that are placed above are perceived to have more weight (importance) than the ones placed below. Therefore to obtain vertical balance, if there are same objects the ones that are placed above should be made slightly lighter (Arnheim, 2004)

In the physical world, 'Uprightness' is defined. When we stand upright, we know that the sky is the top and the ground is the bottom. We still have this idea of the vertical position of the



object even when we change our position, like when we are sitting or lying on the bed.

When we perceive these objects, these are aligned to the retinal orientation i.e. the top and the bottom changes with the shift of the visual field. Here the 'Uprightness' is not defined, it dynamically changes with the visual field.

The image below shows some of the letters of the Odia script that are made of similar structures on top and bottom. They look balanced at first but when flipped it can be seen that the balance was achieved because of the size reduction of top part.



Noto Sans



9. Odia Script Details

9.1. Characters in Odia Script

Oriya has syllabic alphabets wherein all consonants have an inherent vowel embedded within. Diacritics, which can appear above, below, before or after the consonant they belong to, are used to change the form of the inherent vowel. When the diacritics appear at the beginning of a syllable, vowels are written as independent letters.

12

Vowel

34

Consonants

10

Numerals

18

Signs

7

Misc.

Also, when certain consonants occur together, special conjunct symbols are used which combine the essential parts of each letter. A limited number of ligatures are possible since all the consonants cannot be combined with all others. Vowels can either be independent or dependent upon a consonant or consonant cluster. A large number of “consonant + vowel” and “consonant + consonant” combinations have various alternative representations. A standard is perceived to be evolving.

Consonants

0B15	କ	ORIYA LETTER KA
0B16	ଖ	ORIYA LETTER KHA
0B17	ଗ	ORIYA LETTER GA
0B18	ଘ	ORIYA LETTER GHA
0B19	ଙ	ORIYA LETTER NGA
0B1A	ଚ	ORIYA LETTER CA
0B1B	ଛ	ORIYA LETTER CHA
0B1C	ଜ	ORIYA LETTER JA
0B1D	ଝ	ORIYA LETTER JHA
0B1E	ଞ	ORIYA LETTER NYA
0B1F	ଟ	ORIYA LETTER TTA
0B20	ଠ	ORIYA LETTER TTHA
0B21	ଡ	ORIYA LETTER DDA
0B22	ଢ	ORIYA LETTER DDHA
0B23	ଣ	ORIYA LETTER NNA
0B24	ତ	ORIYA LETTER TA
0B25	ଥ	ORIYA LETTER THA
0B26	ଦ	ORIYA LETTER DA
0B27	ଧ	ORIYA LETTER DHA
0B28	ନ	ORIYA LETTER NA
0B2A	ପ	ORIYA LETTER PA
0B2B	ଫ	ORIYA LETTER PHA
0B2C	ବ	ORIYA LETTER BA
		→ 0B35 ଚ oriya letter va
0B2D	ଭ	ORIYA LETTER BHA
0B2E	ମ	ORIYA LETTER MA
0B2F	ଯ	ORIYA LETTER YA
		= ja
0B30	ର	ORIYA LETTER RA
0B32	ଲ	ORIYA LETTER LA
0B33	ୱ	ORIYA LETTER LLA
0B35	ଵ	ORIYA LETTER VA
		→ 0B2C ଚ oriya letter ba
0B36	ଶ	ORIYA LETTER SHA
0B37	ଷ	ORIYA LETTER SSA
0B38	ସ	ORIYA LETTER SA
0B39	ହ	ORIYA LETTER HA

Independent vowels

0B05	ଅ	ORIYA LETTER A
0B06	ଆ	ORIYA LETTER AA
0B07	ଇ	ORIYA LETTER I
0B08	ଈ	ORIYA LETTER II
0B09	ଉ	ORIYA LETTER U
0B0A	ଊ	ORIYA LETTER UU
0B0B	ଋ	ORIYA LETTER VOCALIC R
0B0C	ୠ	ORIYA LETTER VOCALIC L
0B0F	ଏ	ORIYA LETTER E
0B10	ଐ	ORIYA LETTER AI
0B13	ଓ	ORIYA LETTER O
0B14	ଔ	ORIYA LETTER AU

Digits

0B66	୦	ORIYA DIGIT ZERO
0B67	୧	ORIYA DIGIT ONE
0B68	୨	ORIYA DIGIT TWO
0B69	୩	ORIYA DIGIT THREE
0B6A	୪	ORIYA DIGIT FOUR
0B6B	୫	ORIYA DIGIT FIVE
0B6C	୬	ORIYA DIGIT SIX
0B6D	୭	ORIYA DIGIT SEVEN
0B6E	୮	ORIYA DIGIT EIGHT
0B6F	୯	ORIYA DIGIT NINE

Dependent vowel signs

0B3E	ଌ	ORIYA VOWEL SIGN AA
0B3F	ୡ	ORIYA VOWEL SIGN I
0B40	ଐ	ORIYA VOWEL SIGN II
0B41	ୣ	ORIYA VOWEL SIGN U
0B42	୤	ORIYA VOWEL SIGN UU
0B43	୦	ORIYA VOWEL SIGN VOCALIC R
0B44	ୠ	ORIYA VOWEL SIGN VOCALIC RR
0B47	୦	ORIYA VOWEL SIGN E
		• stands to the left of the consonant
0B48	ୠ	ORIYA VOWEL SIGN AI
		• pieces left of and above the consonant
		≡ 0B47 ୦ 0B56 ୠ

Two-part dependent vowel signs

These vowel signs have glyph pieces which stand on both sides of the consonant; they follow the consonant in logical order, and should be handled as a unit for most processing.

0B4B	୦	ORIYA VOWEL SIGN O
		≡ 0B47 ୦ 0B3E ଌ
0B4C	ୠ	ORIYA VOWEL SIGN AU
		≡ 0B47 ୦ 0B57 ୠ

Various signs

0B01	ୠ	ORIYA SIGN CANDRABINDU
0B02	ୡ	ORIYA SIGN ANUSVARA
0B03	ୢ	ORIYA SIGN VISARGA
0B3C	ୣ	ORIYA SIGN NUKTA
		• for extending the alphabet to new letters
0B3D	୤	ORIYA SIGN AVAGRAHA
0B4D	୦	ORIYA SIGN VIRAMA
0B55	ୠ	ORIYA SIGN OVERLINE
		• Kuvi
0B56	ୠ	ORIYA AI LENGTH MARK
0B57	ୠ	ORIYA AU LENGTH MARK

The image shows the Unicode table comprising the basic character set of the Odia Script.

The project covers this character set along with the additional conjuncts of Odia Script

9.2. Grouping letters based on the Form

The Odia letters we grouped based on their visual form. In the image below the visually similar letters are placed in similar groups which are then color coded based on their terminals. It was found that there are majorly three types of endings i.e. ending with a vertical stroke like in the image below : Grouping Odia letters based on their visual characteristics letter 'aa' or

the letter 'm', the second category ending with an inclined stroke (generally an extension of a curved stroke) touching or even slightly extending the baseline like in the letters 'ee' or 'la' and the last where the letters end with a curved stroke like in the letters 'ka' or 'va'.

ଅ ଆ ଅ

ଇ ଈ ଈ ଇ ଈ

ଉ ଊ ଋ ଳ ଳ ଳ ଳ

ଋ ଠ ଠ ଠ ଠ ଠ ଠ

କ ଚ ଚ ଚ ଚ

ଘ ଘ ଘ ଘ ଘ

ଧ ଧ ଧ ଧ ଧ

ନ ନ ନ ନ ନ

● Ends in a vertical Stroke o right

● Ends With an inclined stroke

● Ends in a curved stroke on the top

10. Font Properties and Styles

10.1. 'Monolinear' vs 'Modulated' Fonts

Based on the form, the typefaces could be broadly classified into two categories i.e. mono linear and modulated.

Monolinear typefaces are the ones which have or at least appear to have similar thickness of strokes. These includes many sans serif typefaces like Helvetica, Montserrat, Poppins, Futura, etc.

Modulated typefaces are the ones that have significant difference in their stroke thickness like Garamond. These have resemblance to the strokes that are produced from an angle cut/ chizeled writing tool.



The above image shows the examples of both monolinear & modulated Odia font. The one on the left is Noto Sans Odia by Google, which is an example of monolinear Odia font whereas the one on the right is Prakashan Odia by Alessia Mazzarella, which greatly demonstrates the modulated nature of the font.

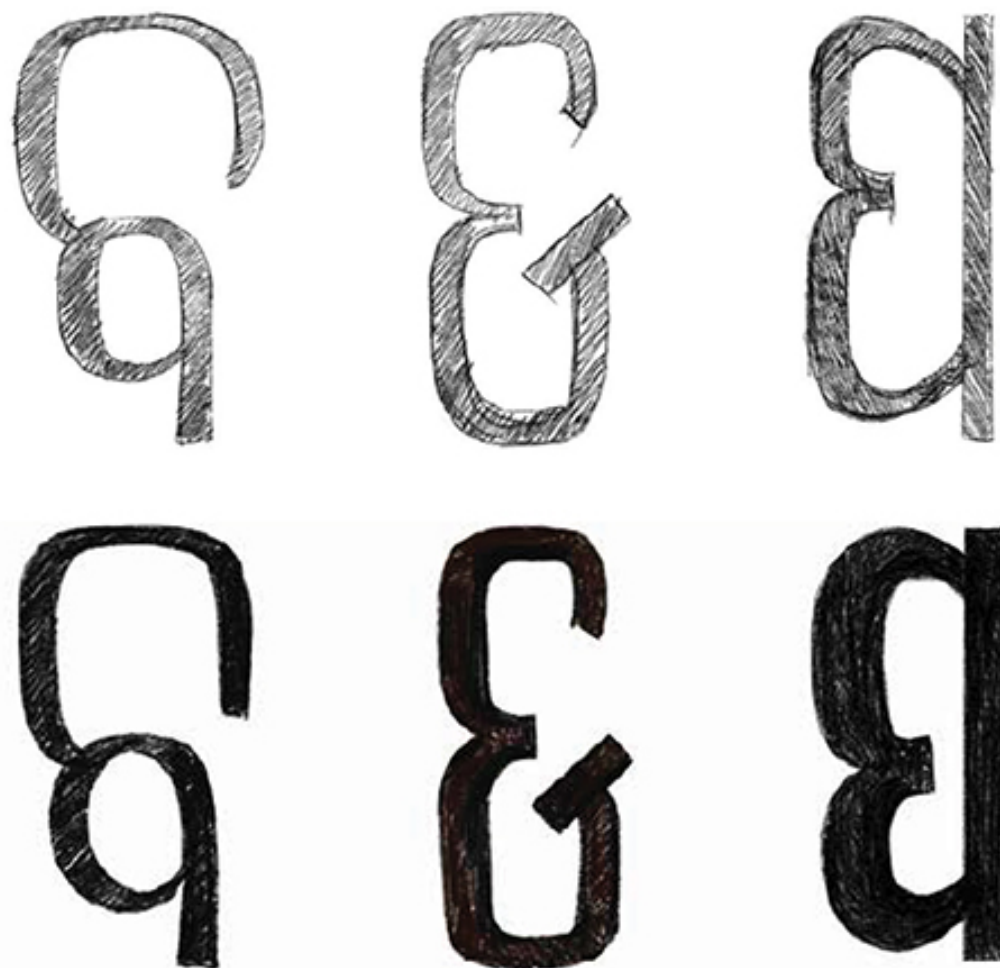
The current project would be focusing on the monolinear type - Display font as the final outcome is intended to be used as a Display Headline to pair with the existing monolinear web fonts. The other reason for choosing to make a monolinear type is it's better usability in limited space when the typeface is being used in a condensed version

10.2. Style Explorations

After deciding upon the font type to be monolinear, a few styles were explored to get an idea of styles that would be suitable for an Odia headline.

The ideas started with the images on the right, a version that would be condensed enough to serve the purpose of saving space in a headline. The inherited form of an Odia script is consisted of so many curves which eventually makes the script very wide with a lot of inter character spacing.

The initial sketches as seen in the images on the right tries to reduce the curved form in to a slightly rectangular one to help reduce the inter character spacing and make the words more compact in order to achieve the headline characteristics described in the previous chapter of this report.

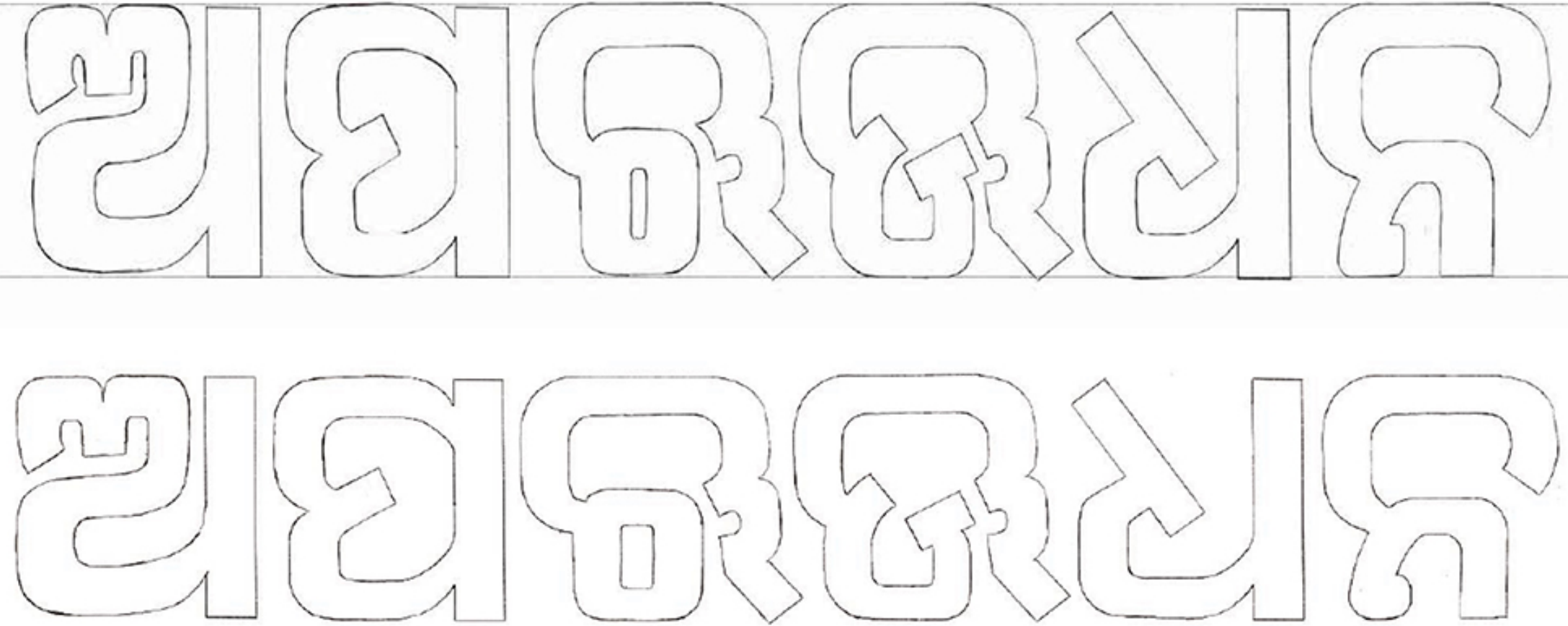


The first set of sketches tried to explore some change in proportion as well s weight of the letters but the time limitation allowed me to complete one instance of the typeface.

This resulted into the exploration of a Bold version of the font. The images below show the same. It consists of the initial letters from each group after grouping the letters based on form in the

previous chapter. The first set of letters were sketched in extra bold weight to get a sense of how they would fit into the headlines. The second set were sketched in the same weight in an

expanded version. These version of sketches fitted better to the headline category so further modifications were done on these to get the letters more compact for the further versions.



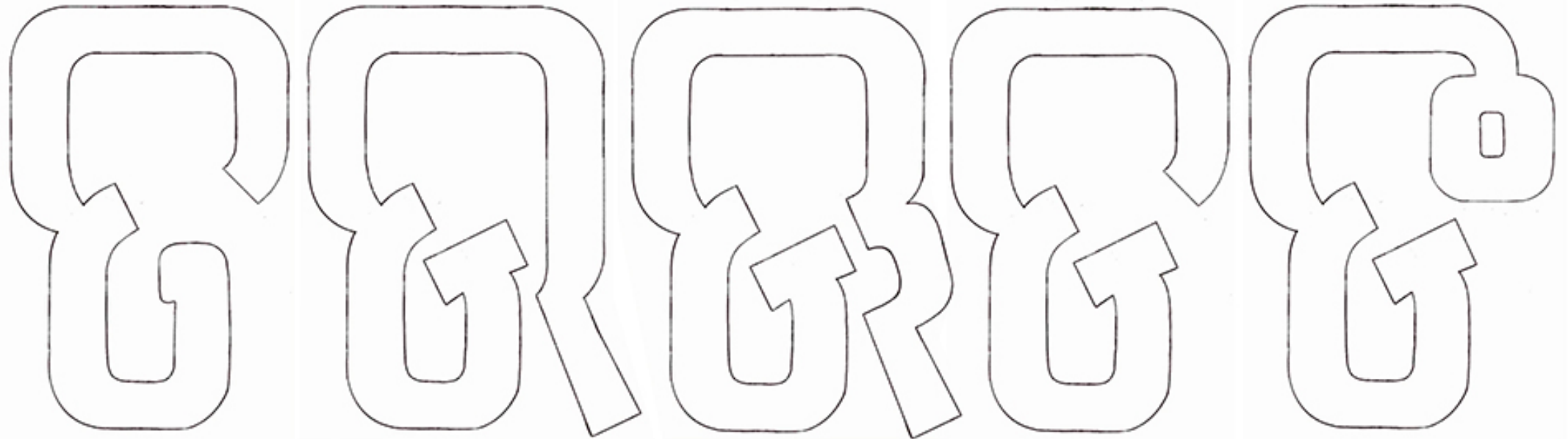
11. Font Design Process

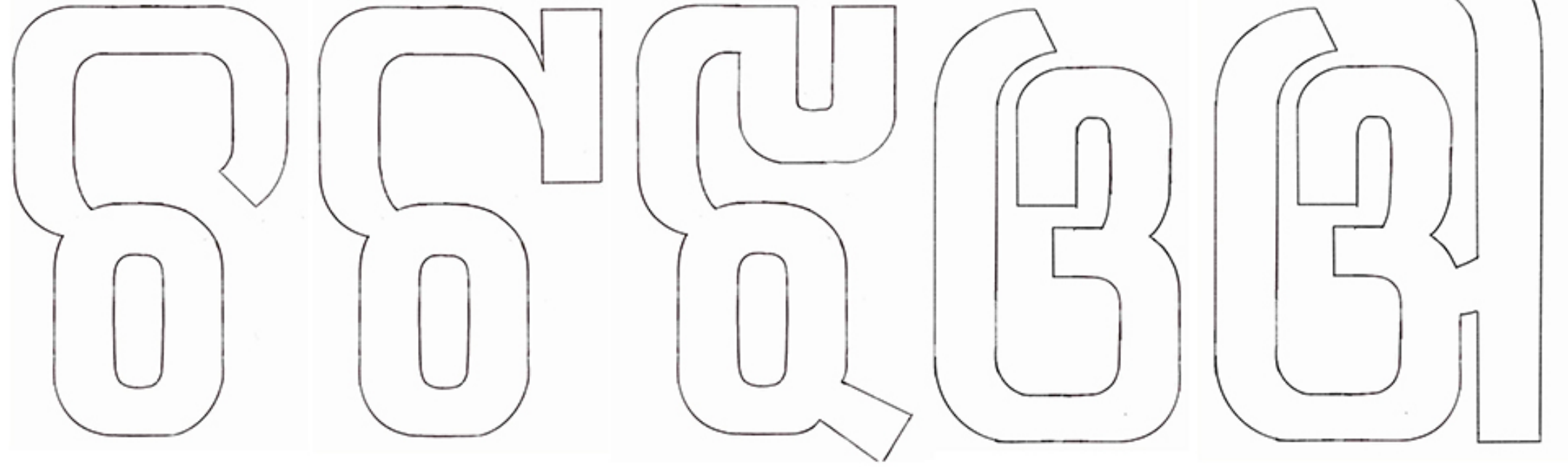
11.1. Glyph Sketches

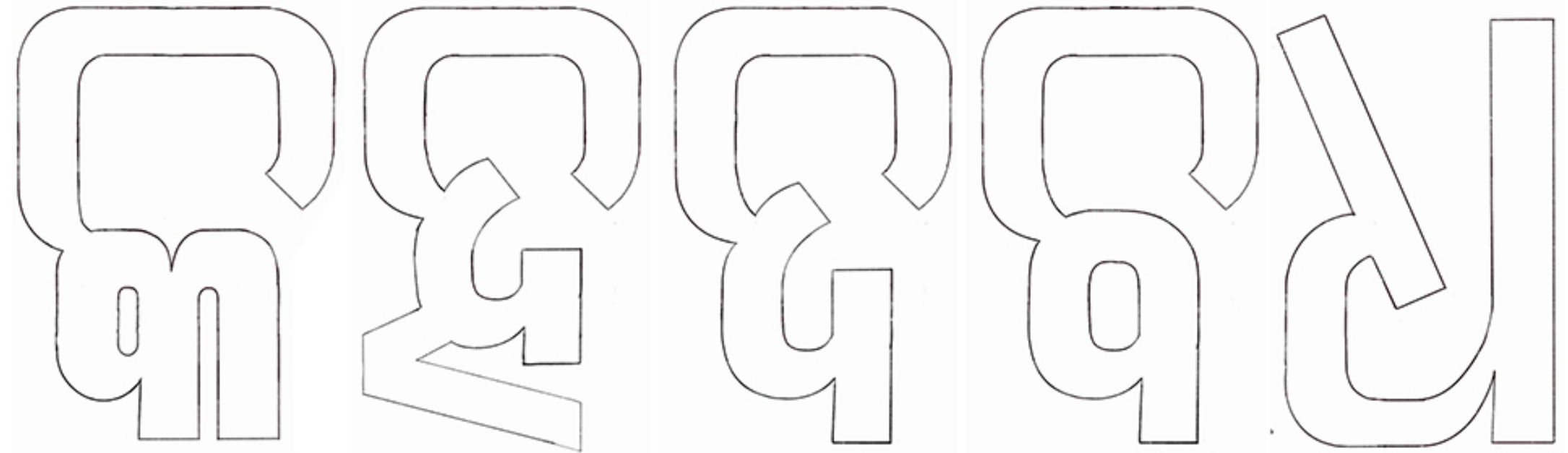
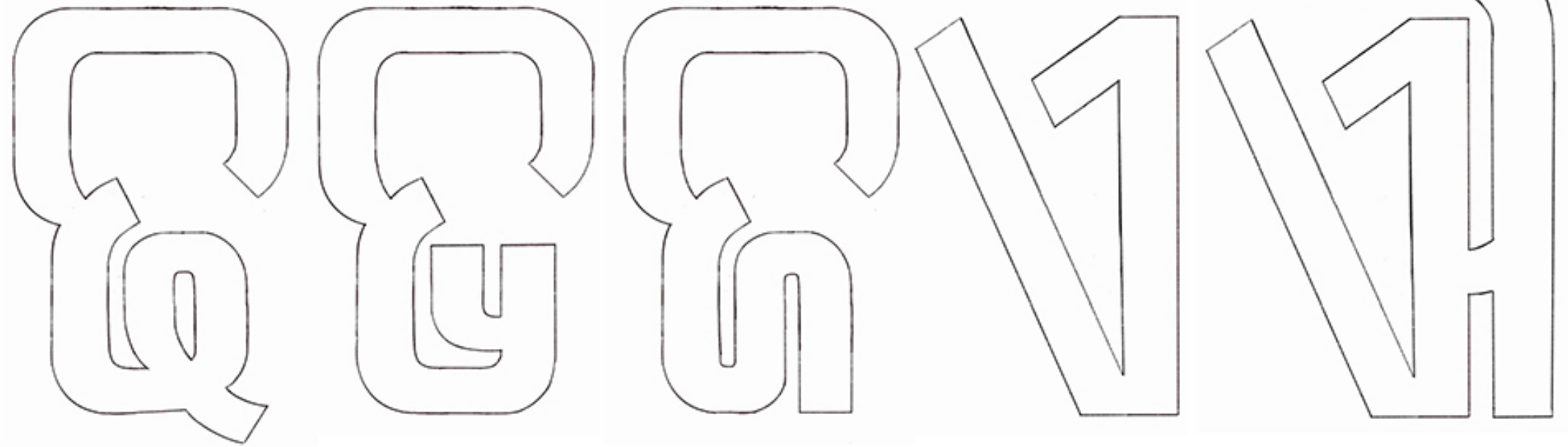
After the style exploration sketches the sketches were finally refined into a more condensed form. The letters were then hand drawn and corrected to achieve some consistency in form to match the final style. The images below are the first iterations of the sketches that would comprise the basic character set of the Odia script.

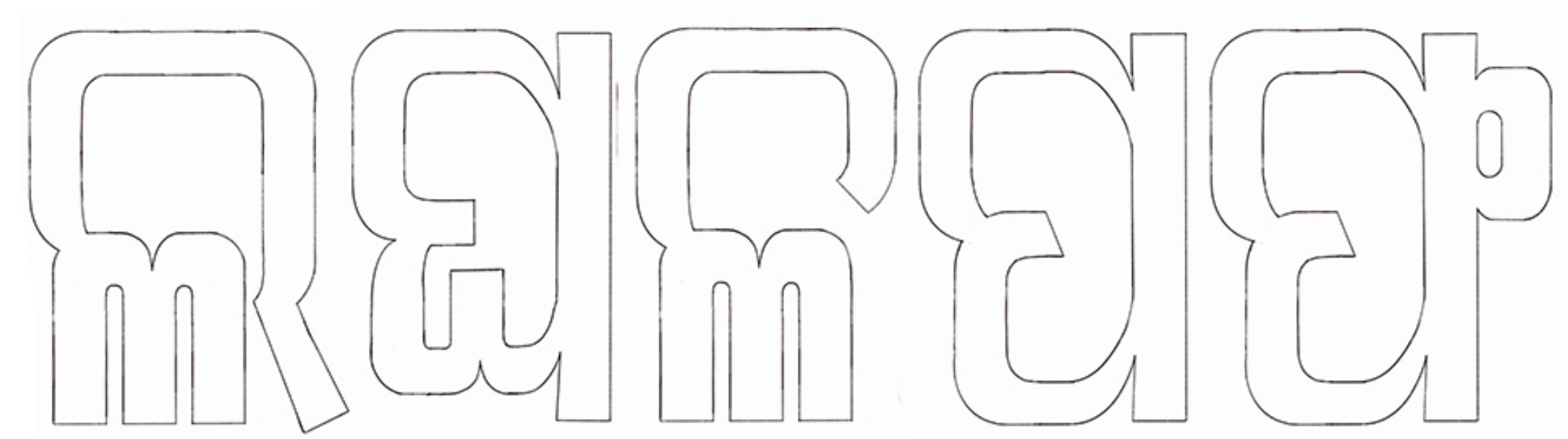
These sketches were drawn by drawing the first set of the letters of the group based on the form of these letters and then these letters were used for reference to draw the other letters of the subsequent groups with similar forms. All these letters were drawn with just the baseline and cap height to see how the proportions would work in a condensed form.







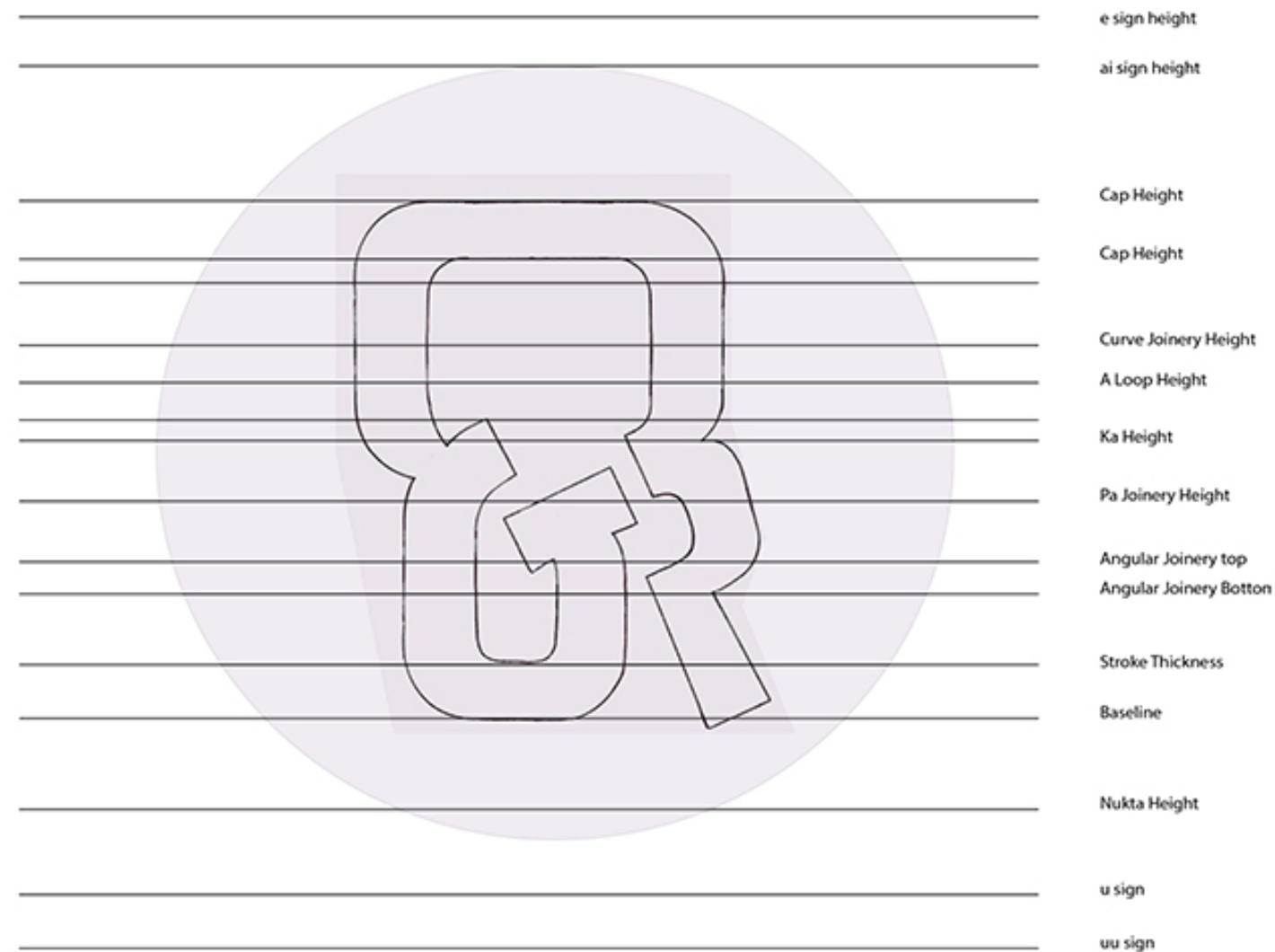




11.2. Vertical Grid for the font

After drawing the first set of letters the letters with distinct features were selected and then these letters were placed with the same baseline after which each distinct feature like the joinery or knot or terminal were marked with a horizontal line.

After drawing lines from each feature these were annotated with the name of the features to make a vertical grid as seen in the following image.



11.3. Composing words with sketches

Before making the vector drawings, it was necessary to see the consistency of the letters and how the letters looked in the form of words. For the same a few names of my classmates were chosen and then these names were composed with the filled version of these sketches. Five of these composed names can be seen in the form of following images.

ଅନୁଭବ
ଅନୁଭବ

ଅନିତ

କରିଷ

ରଚନା

ସୁଲୋଚ

11.4. Naming the Font

The font designed in this project has the main purpose to be used as headlines. One of the main use of headlines are news and hence the name 'Khabar' meaning news in Odia.

As the font is being designed as a part of academic project in IDC School of Design, the prefi 'IDC' is being used in the name and it is called '**IDC- Khabar Odia**'.



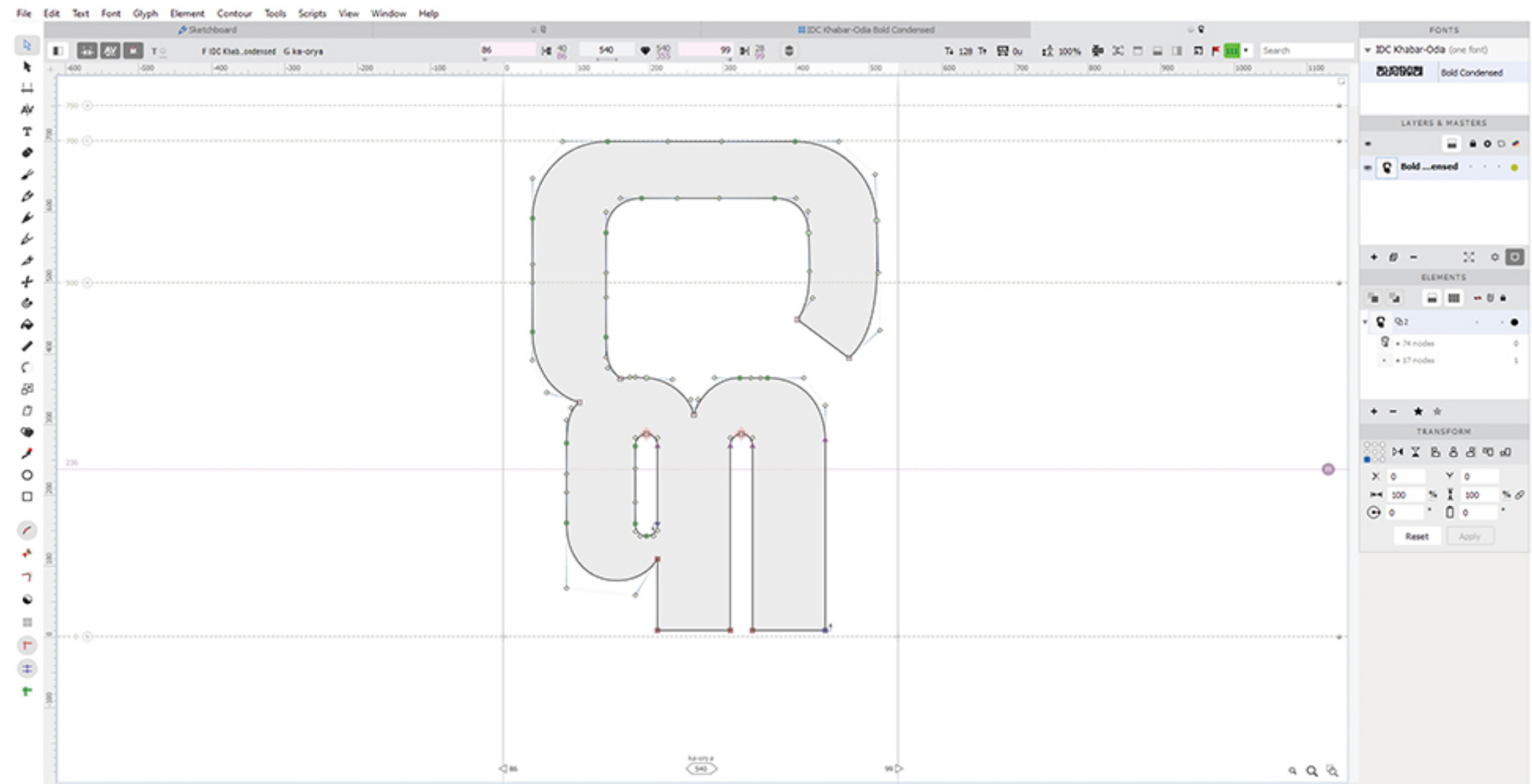
IDC - ଖବର ଓଡ଼ିଆ

IDC Khabar Odia

11.5. Vector Drawings of the Glyphs

The outline sketches drawn earlier were used as a reference for starting the letter drawing process. Each sketch was imported in the masked background layer of the respective glyph. The letters

were then drawn based on the decided vertical grid and the irregularities of the hand drawings were subsided digitally. The Following image shows the vector drawing in Fontlab Studio



FontLab 7

File Edit Text Font Glyph Element Contour Tools Scripts View Window Help

Sketchboard

Font: IDC Khabar-Odia Bold Condensed

Encoding: IDCOdia-Regular x F Index

Font Name: IDC Khabar-Odia (one font)

Style: Bold Condensed

LAYERS & MASTERS

Elements: 2 elements

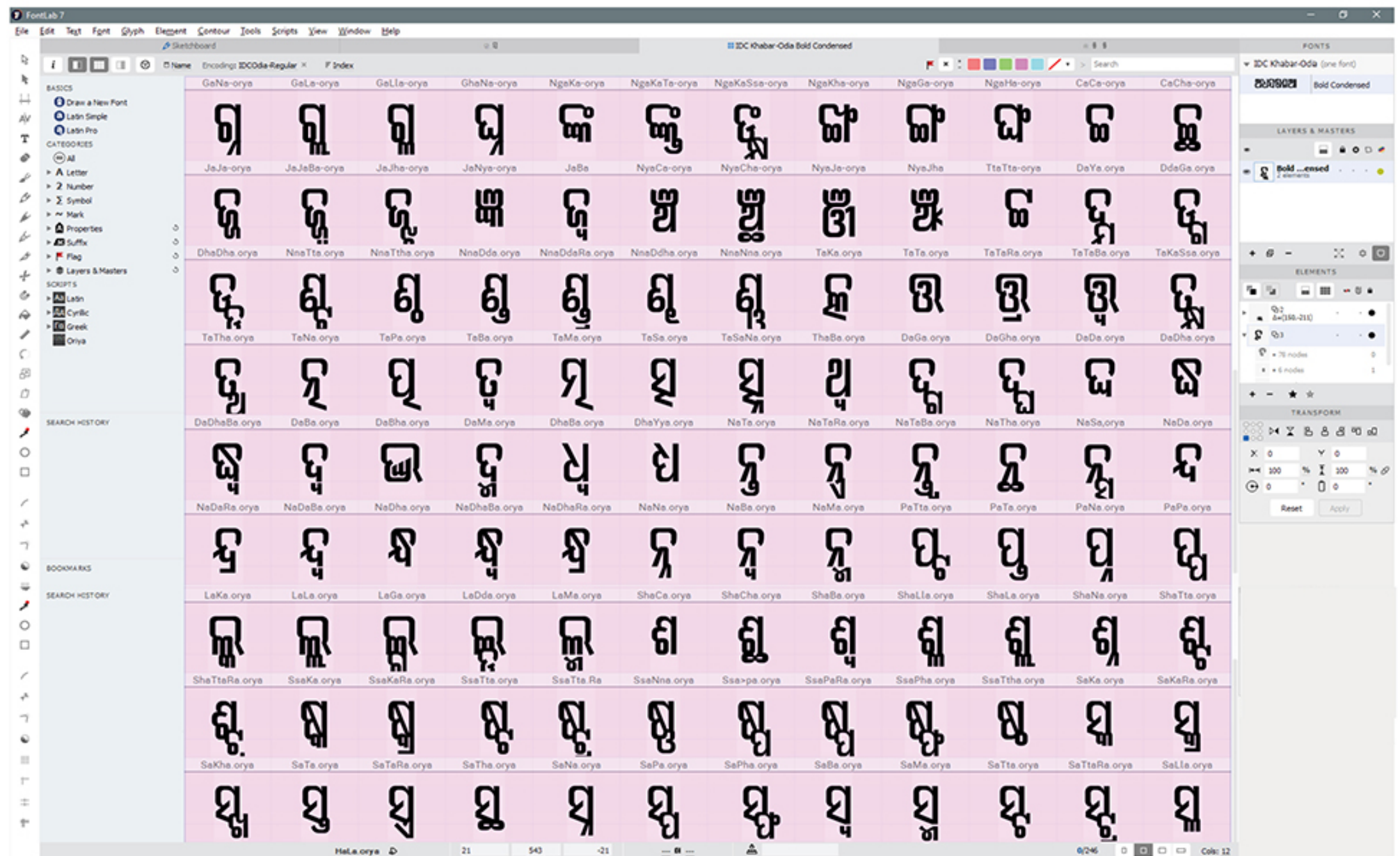
TRANSFORM

X: 0 Y: 0

W: 100% H: 100%

Reset Apply

candrabindu-orya	anusvara-orya	visarga-orya	a-orya	aa-orya	i-orya	ii-orya	u-orya	uu-orya	vocalicr-orya	vocalicl-orya	e-orya
ai-orya	o-orya	eu-orya	ka-orya	kha-orya	ga-orya	ghe-orya	nga-orya	ca-orya	cha-orya	ja-orya	jha-orya
nya-orya	tta-orya	ttha-orya	dda-orya	ddha-orya	nna-orya	te-orya	tha-orya	de-orya	dhe-orya	ne-orya	pa-orya
pha-orya	ba-orya	bha-orya	ma-orya	ya-orya	ra-orya	la-orya	lla-orya	va-orya	sha-orya	ssa-orya	sa-orya
ha-orya	nukta-orya	avagraha-orya	esign-orya	isign-orya	iisign-orya	usign-orya	uusign-orya	vocalicrsign-orya	vocalicrsign-orya	esign-orya	aisign-orya
osign-orya	ousign-orya	virama-orya	uni0B55	alengthmark-orya	eulengthmark-orya	rre-orya	rhe-orya	yya-orya	vocalicr-orya	vocalicll-orya	vocaliclsign-orya
vocaliclsign-orya	zero-orya	one-orya	two-orya	three-orya	four-orya	five-orya	six-orya	seven-orya	eight-orya	nine-orya	issara-orya
gra	dra	ndra	pra	mra	jya	tya	bya	KKa-orya	KaCa-orya	KaI ta-orya	KaIe-orya
KaTaTre-orya	KaMe-orya	KaBe-orya	KaSe-orya	KaLe-orya	KaSse-orya	KaSseNa-orya	KaSsaMe-orya	KaSsaRa-orya	KhaLa	GaDe-orya	GaDha-orya
GaN-orya	GaLe-orya	GaLla-orya	GhaNa-orya	NgaKa-orya	NgaKaTa-orya	NgaKaSse-orya	NgaKha-orya	NgaGa-orya	NgaHa-orya	CaCa-orya	CaCha-orya



12. Font Testing

12.1. Composed names and Comparison

After completing the vector drawings and the font file was exported & a few names were composed to compare them with the names composed previously with the hand drawn sketches.



Before


କୃଷି ଉତ୍ପାଦନ

After


କୃଷି ଉତ୍ପାଦନ

Before


ଉତ୍ପାଦନ

After


ଉତ୍ପାଦନ

12.2. Headline Simulation with the new font

As IDC-Khabar Odia was designed for the headlines, some simulations were generated to see how the characters looked composed in the form of headlines. For the same a few articles were taken from the digital versions of the Odia newspapers 'The Samaja' and 'Sambada' and the original headlines were

replaced with IDC-Khabar Odia. The following images show the original version on the left and the simulated version on the

right. The stylization were made same in order to make better comparison with original version.



ବୌଦ୍ଧତା ଓଡ଼ିଶା

ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ଗୁମ୍ଫା ଗଠନର ପ୍ରକ୍ରିୟା ଆରମ୍ଭ ହୋଇଛି। ଏହି ଗୁମ୍ଫାଗୁଡ଼ିକ ଓଡ଼ିଶାର ଇତିହାସ ଓ ସାଂସ୍କୃତିକ ପାରମ୍ପରାକୁ ଉପଲକ୍ଷ୍ୟ କରି ତିଆରି କରାଯାଇଥିବାରୁ ଏହା ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ଗୁମ୍ଫା ଗଠନର ଏକ ନିଆଁ ଚିହ୍ନିତ ହେବ। ଏହା ଓଡ଼ିଶାର ଇତିହାସ ଓ ସାଂସ୍କୃତିକ ପାରମ୍ପରାକୁ ଉପଲକ୍ଷ୍ୟ କରି ତିଆରି କରାଯାଇଥିବାରୁ ଏହା ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ଗୁମ୍ଫା ଗଠନର ଏକ ନିଆଁ ଚିହ୍ନିତ ହେବ।



ବୌଦ୍ଧତା ଓଡ଼ିଶା

ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ଗୁମ୍ଫା ଗଠନର ପ୍ରକ୍ରିୟା ଆରମ୍ଭ ହୋଇଛି। ଏହି ଗୁମ୍ଫାଗୁଡ଼ିକ ଓଡ଼ିଶାର ଇତିହାସ ଓ ସାଂସ୍କୃତିକ ପାରମ୍ପରାକୁ ଉପଲକ୍ଷ୍ୟ କରି ତିଆରି କରାଯାଇଥିବାରୁ ଏହା ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ଗୁମ୍ଫା ଗଠନର ଏକ ନିଆଁ ଚିହ୍ନିତ ହେବ। ଏହା ଓଡ଼ିଶାର ଇତିହାସ ଓ ସାଂସ୍କୃତିକ ପାରମ୍ପରାକୁ ଉପଲକ୍ଷ୍ୟ କରି ତିଆରି କରାଯାଇଥିବାରୁ ଏହା ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ଗୁମ୍ଫା ଗଠନର ଏକ ନିଆଁ ଚିହ୍ନିତ ହେବ।



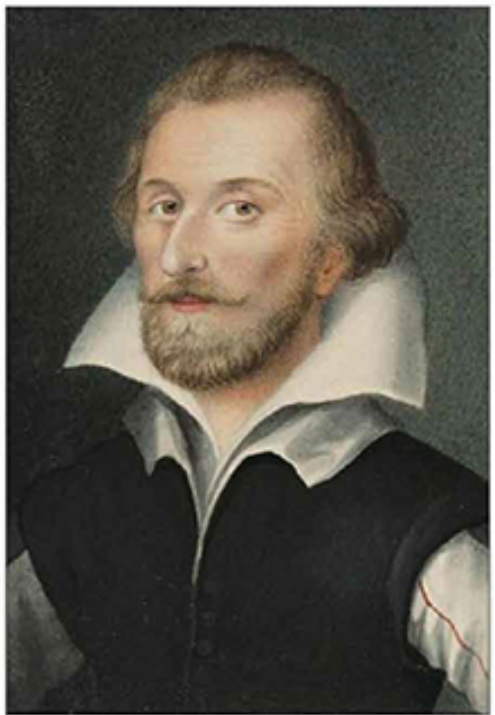
ମାଆ କଥା ପ୍ରତି ମମତା କେତେ

ତତ୍କର ରବିନାରାୟଣ ସାହୁ

ସ୍ନେହ ପିଲାଟିଏ ସ୍ୱପ୍ନ ସରି ପରକୁ ନେଇଯାଏ । ତେବେ ପଛକୁ ପଛକୁ ଯାଏ ।
 ଫୁଲ ଭାବରେ ବ୍ୟାସ୍ତ୍ର କୁଲେ ପିଆ ଯାଇ ମାଆଙ୍କ ପାଖରେ ଯାଏ ।
 ଫୁଲ ଖୁସିର ଭାବଣ ବାଣ ଦେଖି ମାଆ ପରାରେ, ଚନ୍ଦ୍ର ପିଲାଟି ଭାଗକୁ ବହୁଟିଟି
 କାନ୍ଦି ଚଳେ ଖେଳିବେଳେ ସବୁବେଳେ ମୁଆଁନି ମାଆଙ୍କୁ ଦେଖାଇଦେଲା । ଫୁଲ
 ପାଖରେ ଏବେ ସବୁ ମୁଆଁ ଦେଖି ଦେଖି ମାଆ ଆଖିରୁ ଯେଉଁ ପରାସିଲେ, ଆରେ,
 ମୁଁ ତ ତେଜେ ମୁଆଁ ଦେଖି ଖିଟିବକୁ ଯାଇ ଦେଇଛି, ତୁ ଏବେ ଦେଖି ଆଖିକୁ
 କେଉଁପୁ? ପିଲାଟି ସାଙ୍ଗେସାଙ୍ଗେ ଭଲ ଦେଲା, ମାଆ । ଆଜି ସ୍ୱପ୍ନରେ ଖିଟି
 ପିଲାମାନଙ୍କୁ ଦେଖିଲୁଣି । ମୋତେ ବି ଶିଖାଇ ଏବେ ଦେଲା । ମୁଁ ବ୍ୟାସ୍ତ୍ରରେ ଭରି
 ଦେଇ ଆସିଲି । ଭାବଣ ପୁଅ ଦେଖିବାବେଳେ ପିଲାଟି କେତେ ମୁଆଁ ଦେଖିବାକୁ
 ଚାହେଁ । ବାପାଜେଜେ ପିଲାଟିର ମାଆ ଏବେତେବେଳେ କାମଧାରା କରି ଯାଇ
 ଦେଉଳର ଭେଦ ଦେଖିଲେ ଯେ ଫୁଲ ପାଇଁ ପ୍ରାର୍ଥନା ଦେଇ ଦେଖି ଦେଖି ଦେଖି
 ଗାଳୁ ପଢ଼ିବାକୁ ଚାଏ । ଫୁଲ ଦେଖି ଦେଖିଲେ ଦେଖିଲେ ପାଠପଢ଼େ । ଏହା ବଢ଼ିବ
 ପିଲାଙ୍କ ଭାବନାରେ ଆତ୍ମିକ ଦୟାକୁ ଗାଳୁ କିଛି ନିଶ୍ଚିନ୍ତାକୁ ଯେ ଦୈବିକ ପରକୁ
 ଦେଇ ଆସିଲୁଣି । ଯେଉଁପରି ଯେ ଦେଖୁ ଖୁସି ବାନ୍ଧିପାରୁଣି ।

ବଡ଼ମଣିଷ ବଡ଼କଥା

ଫୁଲକୁ ଭୋବକୁ ଆଉଁସରେ ଦେଇ ମାଆ ବସିଲେ, 'ଫୁଲ, ଆମେ ପିଆ ଖିଟିବ,
 ଦେଲେ ଆମଠାରୁ ବହୁ ଭରିବ ପିଲା ଗୋ ଶ୍ରେଣୀରେ ଅଇଛି, ଯେଉଁମାନେ ବଢ଼ିଏ
 ଭଲରେ ଖାଇବାକୁ ପାଆନ୍ତି ନାହିଁ । ଦେଖାରେ ଦେଖି ପଢ଼ିବାକୁ ପାଇଲେ କେମିତି?
 ସେଇମାନଙ୍କ ପାଇଁ ଏ ଦୈବକୁ ଆସିଲି । ଗୋଟିଏ ପଢ଼ିବା ପାଇଁ ଦେଖି ମୁଁ କିଛି
 ଦେଲି । ତୁ ଏହିଦିନ ସବୁ ଆଖିକୁ କାନ୍ଦିବି? ଫୁଲ କହିଲା, 'ମାଆ ଗୋଟିଏ ବହୁବର୍ଣ୍ଣ
 ଗୋ ପାଇଁ ପ୍ରାର୍ଥନା ଦେଇ କିଛି ଦୁଆ ଦେଇ ଦେଲେ ଆଣିବି । ମୁଁ ଏ ମୁଆଁ ଦେଖି ଦେଖି
 ଦେଇ ଆସିଲି । ବହୁବର୍ଣ୍ଣ ତୁ ତ ଗାଳୁ ଆମର କାନ୍ଦୁ ଦେଲେ । ଯେତେବେଳେ ପାଇଁ
 ଦୁଆ ଦେଖି ଆଣିବି କେମିତି । ଗାପରେ ଦେଖି ପିଲା ପ୍ରାର୍ଥନା କେଉଁଥାଏ ମାତ୍ର ପାଠ
 କିଣ ପ୍ରାର୍ଥନା କୁଏ ? ପାଠ ଯାଏ ଯାଏ, ଦେଖି ଦୁଆ ପ୍ରାର୍ଥନାରେ ବାଣ ଦେଇ ଅଛି ।
 ଗୋ ପାଖରେ ପ୍ରାର୍ଥନା ଦେଇ ଅଛି, ଦେଖି ତୁ ଏ ମୁଆଁ ଦେଖିଲେ କାନ୍ଦି ସ୍ୱପ୍ନରେ
 ଦେଲେ ଦେଲୁ । ଭାବଣ ଏମିତି ବି ପିଲା ଥିଲେ ଯେଉଁମାନଙ୍କ ପାଖରେ ଆଣିବି
 ଦେଇ ଦେଲୁ । ଏ ଦେଖି ପିଲାଟି ଖିଟିବ ପିଲାଙ୍କ ପାଠ ପଢ଼ାରେ ସାହାଯ୍ୟ କରିବ ।
 ଦେଖାଯାଏ ଆଧାର ଉପରେ ଦେଖି ବାଣ ଦେଖି ଯଦି ଧନାତ୍ମକତାକୁ ଖିଟିବକୁ
 ନିଶ୍ଚିନ୍ତା ଦେଖିବେ ଆଧାରକୁ ଗାଳୁ ଦେଖି ଦେଖି ଦେଖି ଏ ଦେଖିଲେ
 ଦିଶିବେ ବ୍ୟାଧି ଦୃଢ଼ିତା କିମିତ ନାହିଁ । ଦେଖି ଦିଶିବେମାନଙ୍କୁ ଗୁରୁତା
 ଆବଦାନତା ପୂରଣ କରିବାରେ



ମନୋରାଜ୍ୟ ଦେଖି ଦେଖି ଦେଖି ।
 ମାଆଙ୍କ ଭାଷଣରେ ପିଲାଟିର ମନ ପରିବର୍ତ୍ତନ ହୋଇଗଲା । ଚନ୍ଦ୍ର ଆଉଁସର
 ସ୍ୱପ୍ନକୁ ଯାଇ ଶିଖାଇ ସବୁ ଦେଖି ଦେଖିଲେ ଦେଲା ଓ କହିଲା, 'ଘୁରୁଣା । ମୋ
 ପାଖରେ ଦେଖି ଅଛି । ଏହି ଦୈବିକ ଅଧ୍ୟାୟ ଦେଖି ପିଲାଙ୍କୁ ଦେଇ ଦେଖି ଯେ ଗାଳ
 ପାଠପଢ଼ାରେ ସାହାଯ୍ୟ କରିବ ।
 ମୁଆଁନି ପଢ଼ିବା ପ୍ରତି ମନରେ ଭୋବ ଥିଲେ ବି ମାଆଙ୍କର ଦେଖି ଘୋ
 ଠିପରକୁ ସଜାଣ ବାନ୍ଧି ଦେଖି ମୁଆଁନିକୁ ଶିଖାଇ ଦେଖିଲେ ଦେଖିଲେ
 ଦେଖିଲେ କୁଟି ମାତ୍ରରେ ବାଣକର୍ତ୍ତୀ ଥିଲେ ଦାନାଘର ପ୍ରସିଦ୍ଧ କର୍ତ୍ତା ସାମୁଏଲ୍
 ଗାମିନ୍-ସ୍ମ । ୧୯୧୬ ମସିହାରେ ଦେଖିଲେ କର୍ତ୍ତା ଦାନାଘା ସାହିତ୍ୟରେ ପ୍ରସିଦ୍ଧା ନାଉ
 କର୍ତ୍ତାଏନ ଏହି ନାଉର ସରଦୃଶ ସାଧକ ୧୯୧୮ ମସିହାରେ ଉତ୍କଳୀୟା ବାମୁରା
 କର୍ତ୍ତାଲେ । ■■

ମାଆ କେତେବେଳେ ପଢ଼ା, ୧୯୧୬-୨୮
 ଗୋ: ୯୮୧୦୮୯୮୮୮

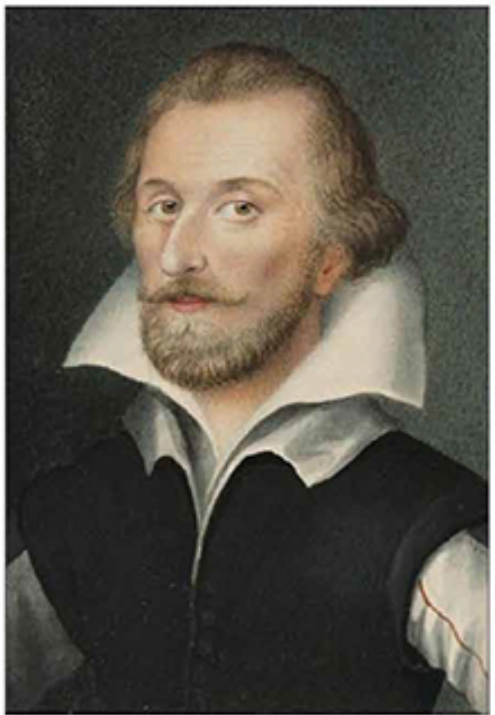
ମାଆ କଥା ପ୍ରତି ମମତା କେତେ

ତତ୍କର ରବିନାରାୟଣ ସାହୁ

ସ୍ନେହ ପିଲାଟିଏ ସ୍ୱପ୍ନ ସରି ପରକୁ ନେଇଯାଏ । ତେବେ ପଛକୁ ପଛକୁ ଯାଏ ।
 ଫୁଲ ଭାବରେ ବ୍ୟାସ୍ତ୍ର କୁଲେ ପିଆ ଯାଇ ମାଆଙ୍କ ପାଖରେ ଯାଏ ।
 ଫୁଲ ଖୁସିର ଭାବଣ ବାଣ ଦେଖି ମାଆ ପରାରେ, ଚନ୍ଦ୍ର ପିଲାଟି ଭାଗକୁ ବହୁଟିଟି
 କାନ୍ଦି ଚଳେ ଖେଳିବେଳେ ସବୁବେଳେ ମୁଆଁନି ମାଆଙ୍କୁ ଦେଖାଇଦେଲା । ଫୁଲ
 ପାଖରେ ଏବେ ସବୁ ମୁଆଁ ଦେଖି ଦେଖି ମାଆ ଆଖିରୁ ଯେଉଁ ପରାସିଲେ, ଆରେ,
 ମୁଁ ତ ତେଜେ ମୁଆଁ ଦେଖି ଖିଟିବକୁ ଯାଇ ଦେଇଛି, ତୁ ଏବେ ଦେଖି ଆଖିକୁ
 କେଉଁପୁ? ପିଲାଟି ସାଙ୍ଗେସାଙ୍ଗେ ଭଲ ଦେଲା, ମାଆ । ଆଜି ସ୍ୱପ୍ନରେ ଖିଟି
 ପିଲାମାନଙ୍କୁ ଦେଖିଲୁଣି । ମୋତେ ବି ଶିଖାଇ ଏବେ ଦେଲା । ମୁଁ ବ୍ୟାସ୍ତ୍ରରେ ଭରି
 ଦେଇ ଆସିଲି । ଭାବଣ ପୁଅ ଦେଖିବାବେଳେ ପିଲାଟି କେତେ ମୁଆଁ ଦେଖିବାକୁ
 ଚାହେଁ । ବାପାଜେଜେ ପିଲାଟିର ମାଆ ଏବେତେବେଳେ କାମଧାରା କରି ଯାଇ
 ଦେଉଳର ଭେଦ ଦେଖିଲେ ଯେ ଫୁଲ ପାଇଁ ପ୍ରାର୍ଥନା ଦେଇ ଦେଖି ଦେଖି ଦେଖି
 ଗାଳୁ ପଢ଼ିବାକୁ ଚାଏ । ଫୁଲ ଦେଖି ଦେଖିଲେ ଦେଖିଲେ ପାଠପଢ଼େ । ଏହା ବଢ଼ିବ
 ପିଲାଙ୍କ ଭାବନାରେ ଆତ୍ମିକ ଦୟାକୁ ଗାଳୁ କିଛି ନିଶ୍ଚିନ୍ତାକୁ ଯେ ଦୈବିକ ପରକୁ
 ଦେଇ ଆସିଲୁଣି । ଯେଉଁପରି ଯେ ଦେଖୁ ଖୁସି ବାନ୍ଧିପାରୁଣି ।

ବଡ଼ମଣିଷ ବଡ଼କଥା

ଫୁଲକୁ ଭୋବକୁ ଆଉଁସରେ ଦେଇ ମାଆ ବସିଲେ, 'ଫୁଲ, ଆମେ ପିଆ ଖିଟିବ,
 ଦେଲେ ଆମଠାରୁ ବହୁ ଭରିବ ପିଲା ଗୋ ଶ୍ରେଣୀରେ ଅଇଛି, ଯେଉଁମାନେ ବଢ଼ିଏ
 ଭଲରେ ଖାଇବାକୁ ପାଆନ୍ତି ନାହିଁ । ଦେଖାରେ ଦେଖି ପଢ଼ିବାକୁ ପାଇଲେ କେମିତି?
 ସେଇମାନଙ୍କ ପାଇଁ ଏ ଦୈବକୁ ଆସିଲି । ଗୋଟିଏ ପଢ଼ିବା ପାଇଁ ଦେଖି ମୁଁ କିଛି
 ଦେଲି । ତୁ ଏହିଦିନ ସବୁ ଆଖିକୁ କାନ୍ଦିବି? ଫୁଲ କହିଲା, 'ମାଆ ଗୋଟିଏ ବହୁବର୍ଣ୍ଣ
 ଗୋ ପାଇଁ ପ୍ରାର୍ଥନା ଦେଇ କିଛି ଦୁଆ ଦେଇ ଦେଲେ ଆଣିବି । ମୁଁ ଏ ମୁଆଁ ଦେଖି ଦେଖି
 ଦେଇ ଆସିଲି । ବହୁବର୍ଣ୍ଣ ତୁ ତ ଗାଳୁ ଆମର କାନ୍ଦୁ ଦେଲେ । ଯେତେବେଳେ ପାଇଁ
 ଦୁଆ ଦେଖି ଆଣିବି କେମିତି । ଗାପରେ ଦେଖି ପିଲା ପ୍ରାର୍ଥନା କେଉଁଥାଏ ମାତ୍ର ପାଠ
 କିଣ ପ୍ରାର୍ଥନା କୁଏ ? ପାଠ ଯାଏ ଯାଏ, ଦେଖି ଦୁଆ ପ୍ରାର୍ଥନାରେ ବାଣ ଦେଇ ଅଛି ।
 ଗୋ ପାଖରେ ପ୍ରାର୍ଥନା ଦେଇ ଅଛି, ଦେଖି ତୁ ଏ ମୁଆଁ ଦେଖିଲେ କାନ୍ଦି ସ୍ୱପ୍ନରେ
 ଦେଲେ ଦେଲୁ । ଭାବଣ ଏମିତି ବି ପିଲା ଥିଲେ ଯେଉଁମାନଙ୍କ ପାଖରେ ଆଣିବି
 ଦେଇ ଦେଲୁ । ଏ ଦେଖି ପିଲାଟି ଖିଟିବ ପିଲାଙ୍କ ପାଠ ପଢ଼ାରେ ସାହାଯ୍ୟ କରିବ ।
 ଦେଖାଯାଏ ଆଧାର ଉପରେ ଦେଖି ବାଣ ଦେଖି ଯଦି ଧନାତ୍ମକତାକୁ ଖିଟିବକୁ
 ନିଶ୍ଚିନ୍ତା ଦେଖିବେ ଆଧାରକୁ ଗାଳୁ ଦେଖି ଦେଖି ଦେଖି ଏ ଦେଖିଲେ
 ଦିଶିବେ ବ୍ୟାଧି ଦୃଢ଼ିତା କିମିତ ନାହିଁ । ଦେଖି ଦିଶିବେମାନଙ୍କୁ ଗୁରୁତା
 ଆବଦାନତା ପୂରଣ କରିବାରେ



ମନୋରାଜ୍ୟ ଦେଖି ଦେଖି ଦେଖି ।
 ମାଆଙ୍କ ଭାଷଣରେ ପିଲାଟିର ମନ ପରିବର୍ତ୍ତନ ହୋଇଗଲା । ଚନ୍ଦ୍ର ଆଉଁସର
 ସ୍ୱପ୍ନକୁ ଯାଇ ଶିଖାଇ ସବୁ ଦେଖି ଦେଖିଲେ ଦେଲା ଓ କହିଲା, 'ଘୁରୁଣା । ମୋ
 ପାଖରେ ଦେଖି ଅଛି । ଏହି ଦୈବିକ ଅଧ୍ୟାୟ ଦେଖି ପିଲାଙ୍କୁ ଦେଇ ଦେଖି ଯେ ଗାଳ
 ପାଠପଢ଼ାରେ ସାହାଯ୍ୟ କରିବ ।
 ମୁଆଁନି ପଢ଼ିବା ପ୍ରତି ମନରେ ଭୋବ ଥିଲେ ବି ମାଆଙ୍କର ଦେଖି ଘୋ
 ଠିପରକୁ ସଜାଣ ବାନ୍ଧି ଦେଖି ମୁଆଁନିକୁ ଶିଖାଇ ଦେଖିଲେ ଦେଖିଲେ
 ଦେଖିଲେ କୁଟି ମାତ୍ରରେ ବାଣକର୍ତ୍ତୀ ଥିଲେ ଦାନାଘର ପ୍ରସିଦ୍ଧ କର୍ତ୍ତା ସାମୁଏଲ୍
 ଗାମିନ୍-ସ୍ମ । ୧୯୧୬ ମସିହାରେ ଦେଖିଲେ କର୍ତ୍ତା ଦାନାଘା ସାହିତ୍ୟରେ ପ୍ରସିଦ୍ଧା ନାଉ
 କର୍ତ୍ତାଏନ ଏହି ନାଉର ସରଦୃଶ ସାଧକ ୧୯୧୮ ମସିହାରେ ଉତ୍କଳୀୟା ବାମୁରା
 କର୍ତ୍ତାଲେ । ■■

ମାଆ କେତେବେଳେ ପଢ଼ା, ୧୯୧୬-୨୮
 ଗୋ: ୯୮୧୦୮୯୮୮୮

12.3. Composing Words

The second set of testing was done by composing words containing all types of characters. The following images shows

the names of my classmates composed in IDC Khabar Odia to see how the font would work in real world scenario



କବିଷ ପଢ଼ିବାର



ଶ୍ରୀମତୀ ପ୍ରଭା

ଦ୍ଵିତୀୟା ଶୈଳ

ଅମିତ ପାଟଲୋଷୀ

ରଠରଠା ସଂଖଲରଠର

ଢିଢ଼ା ଗଗଗାଢି

ସୁଖେୟ ନିଶ୍ଚିତରେ

ନୀତିଆରି

ଶ୍ରୀମାତା ଜ୍ୟୋତ୍ସ୍ନାବତୀ ଲକ୍ଷ୍ମୀଦେବୀ

ଦର୍ଶନ ପାଲଟାଇ

ଝେକଡ଼ ମଂଡ଼ଲ

ଶିବାଜୀ

ନବନିର୍ମିତ ନିର୍ମାଣ

ଆନନ୍ଦ ବାଣୀ

ପାରମିତା ମହାମହାର

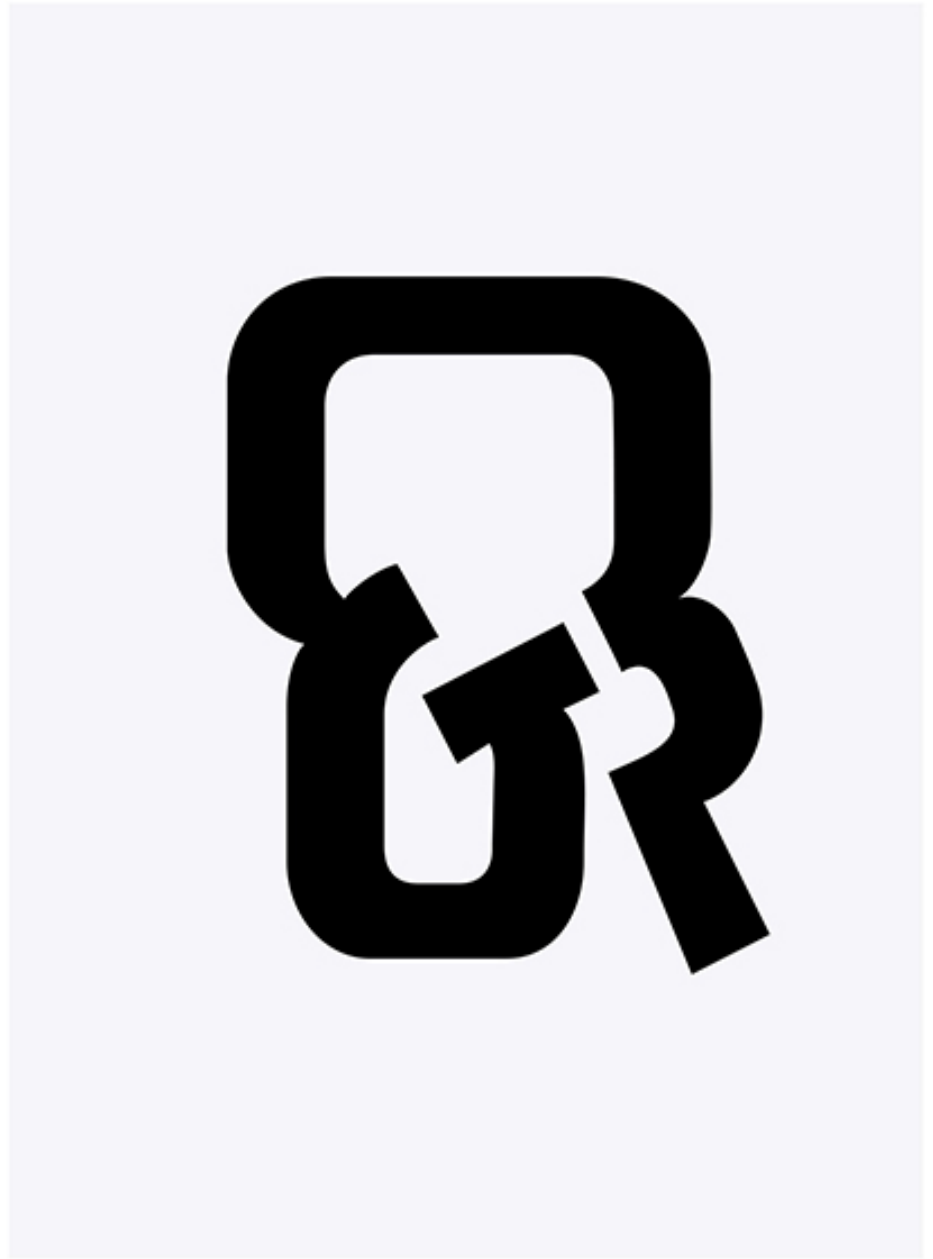
ଅନୁଭବ ନାଗପାଲ

13. Final Glyphs

The following are the vector sketches of the final glyphs of IDC Khabar Odia.













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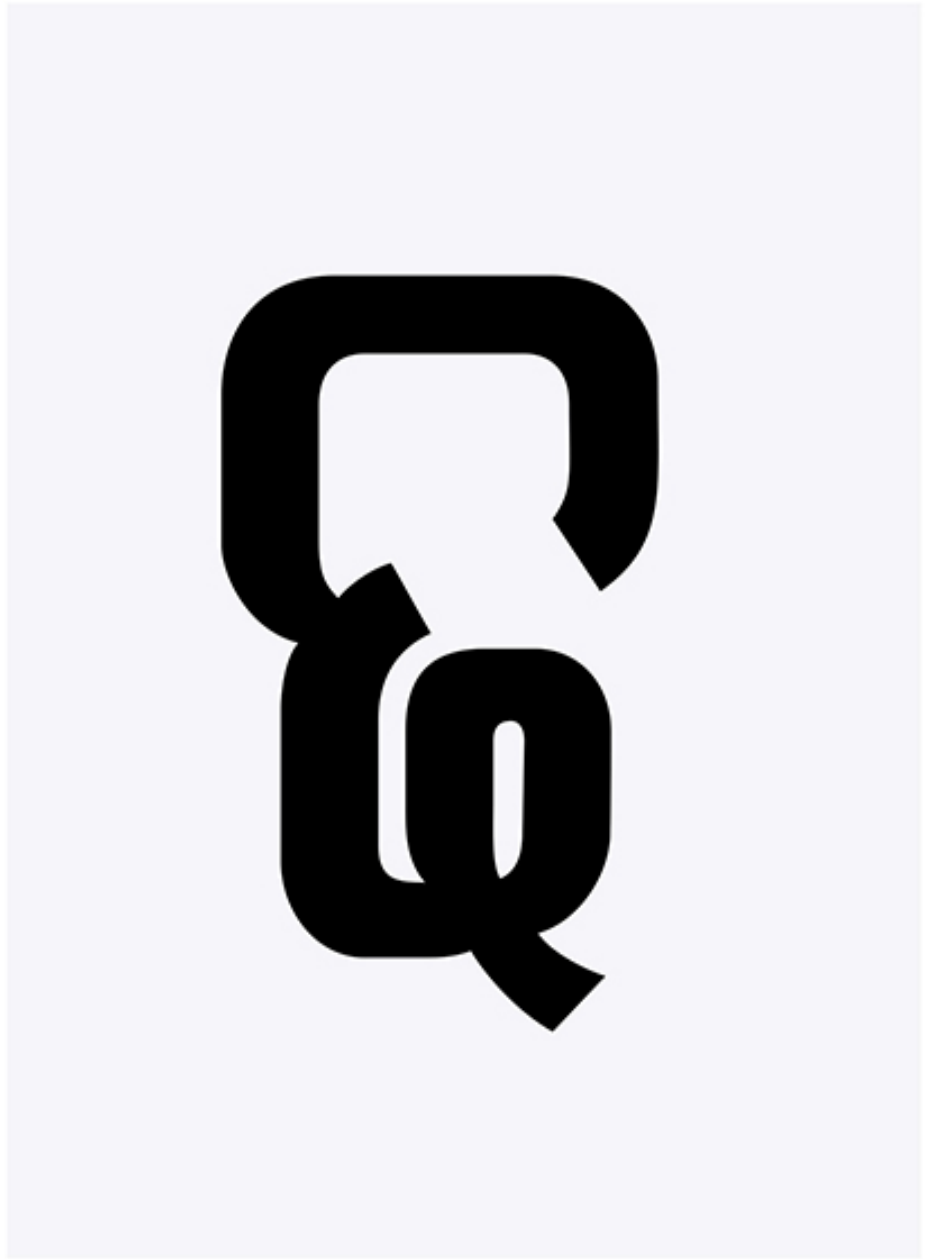
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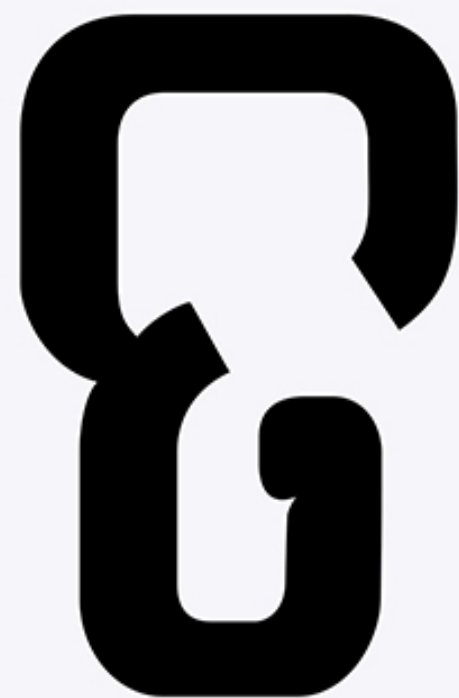








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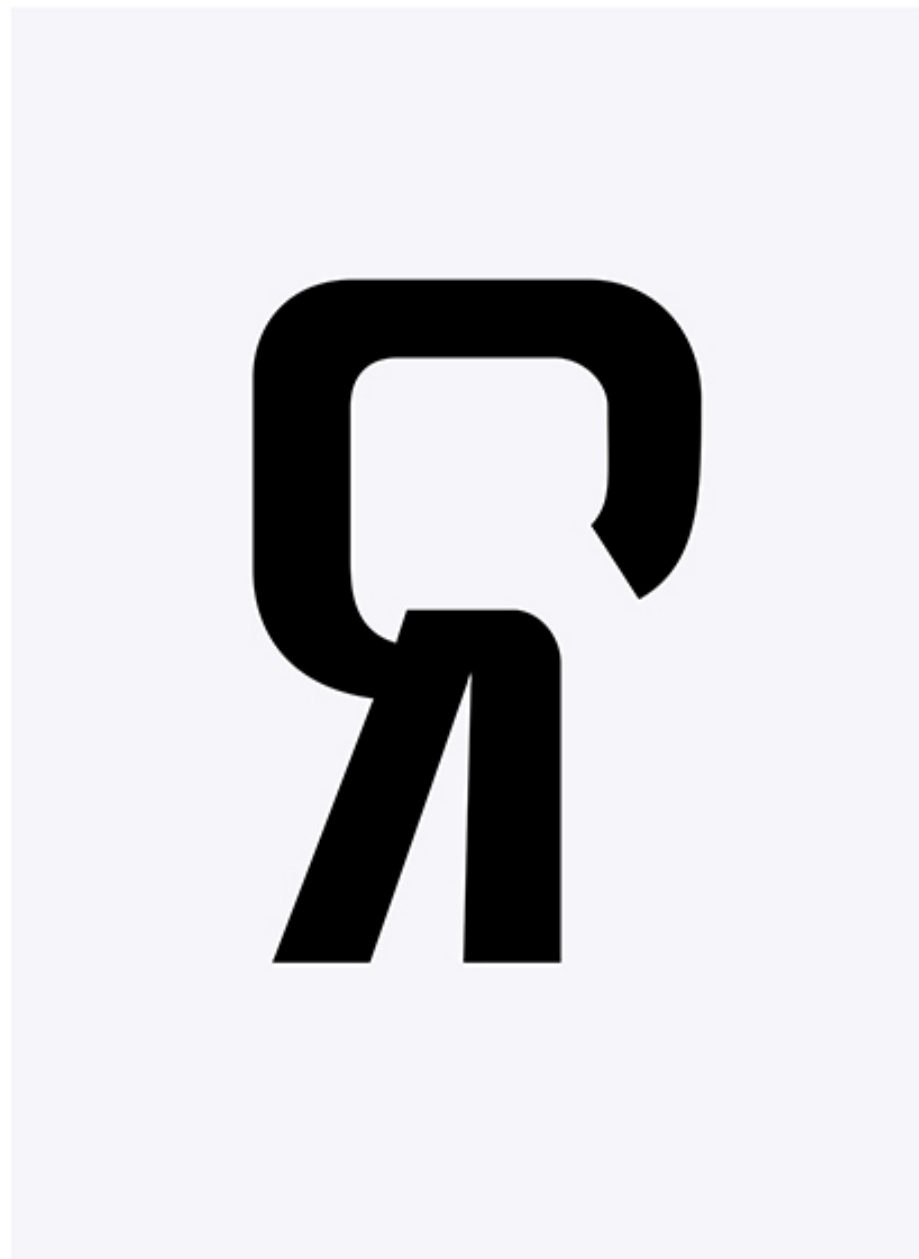
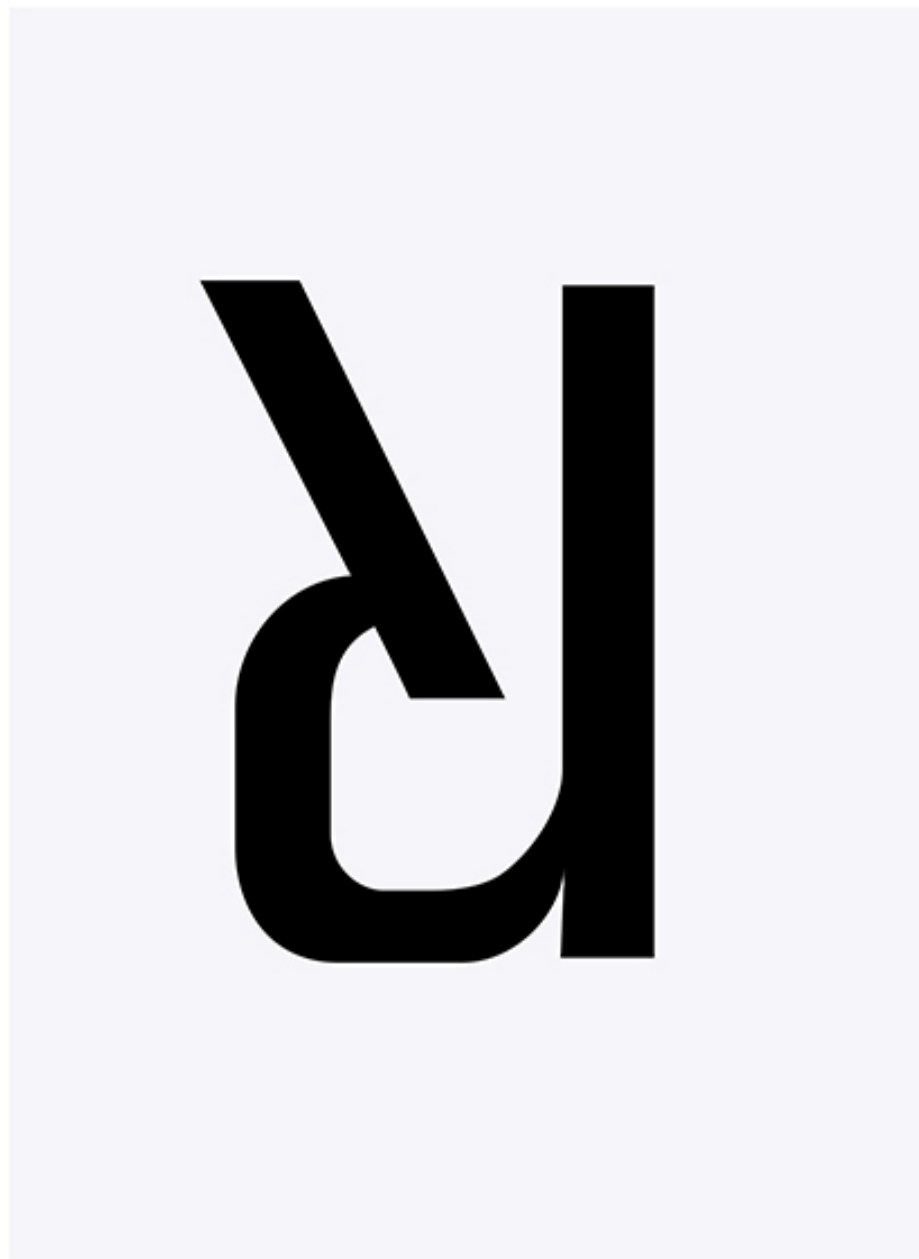
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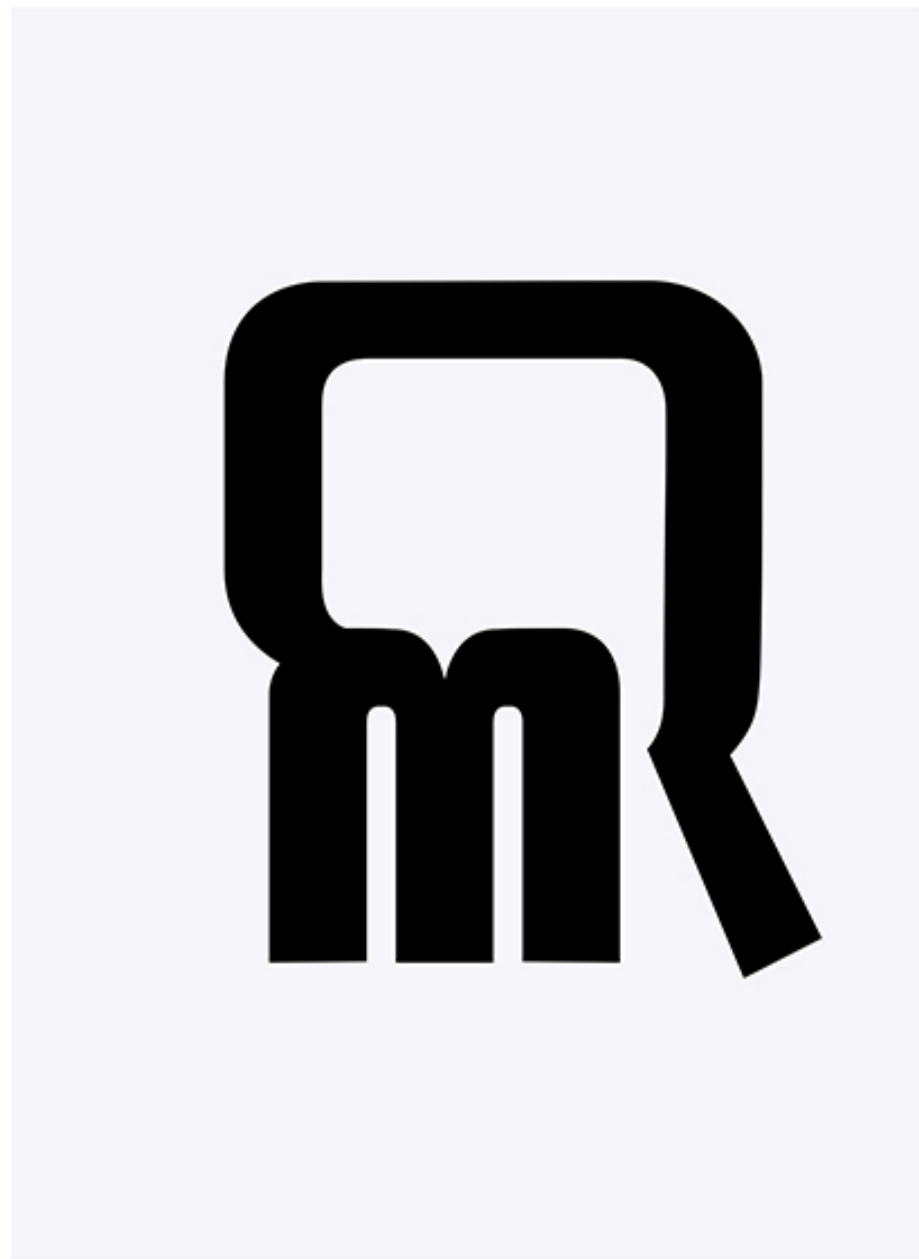




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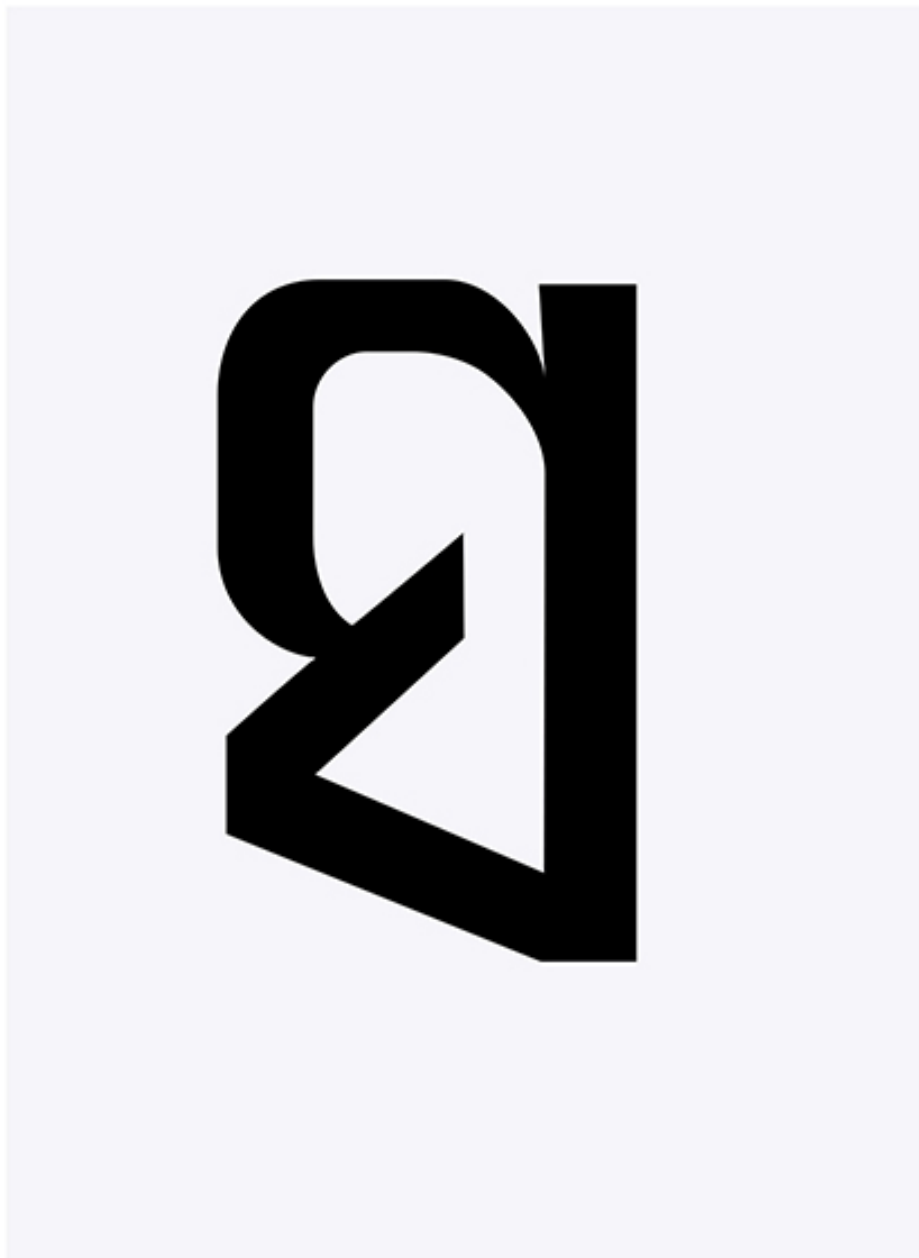





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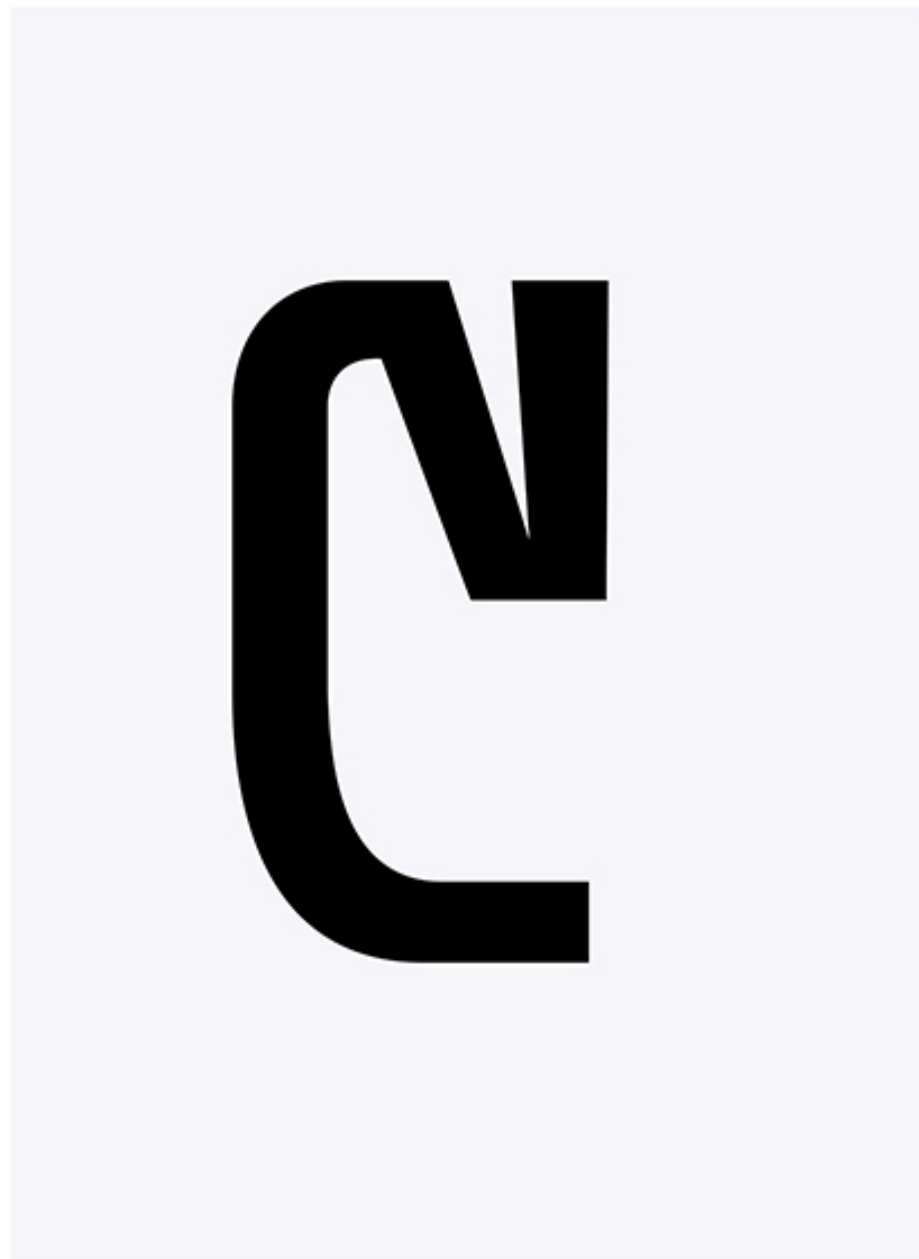
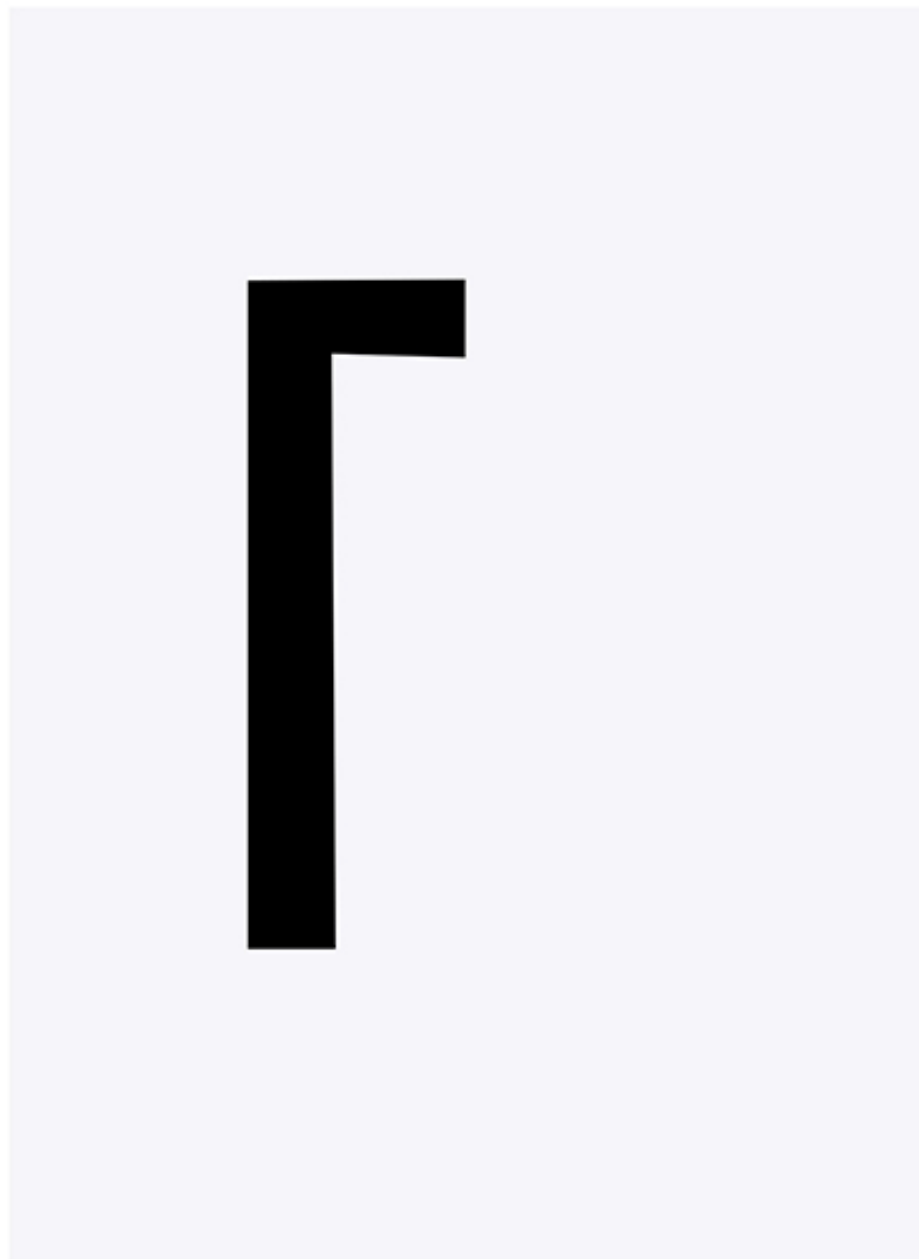
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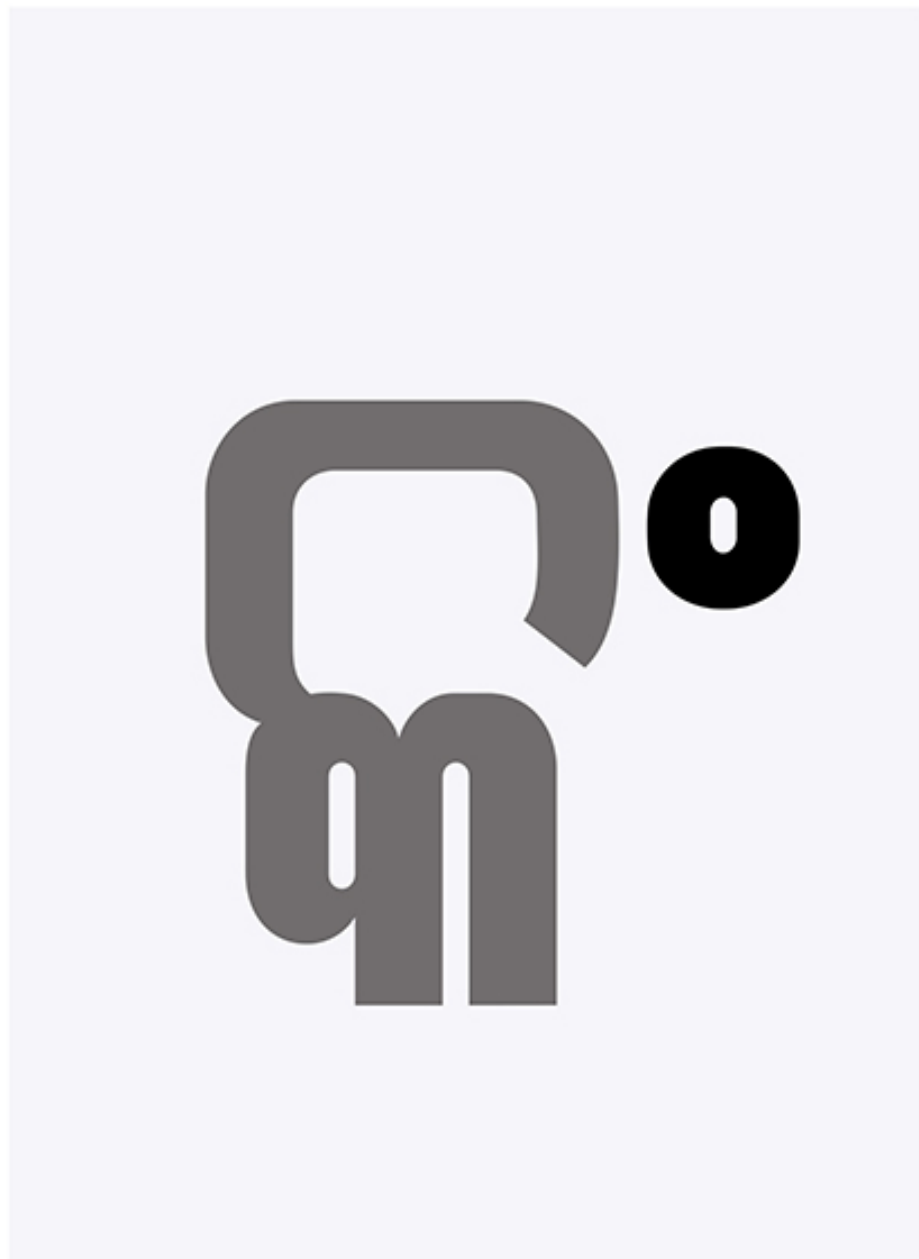
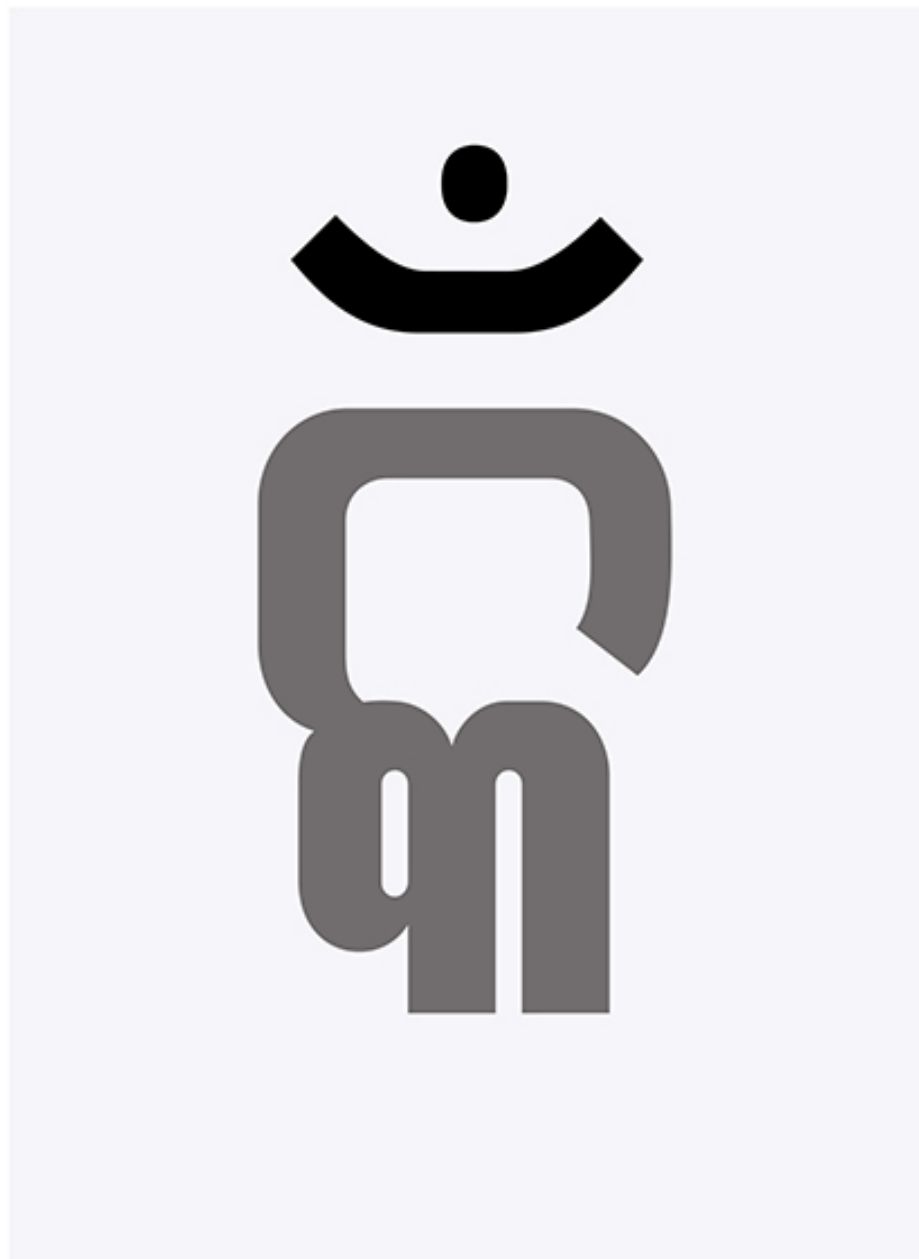


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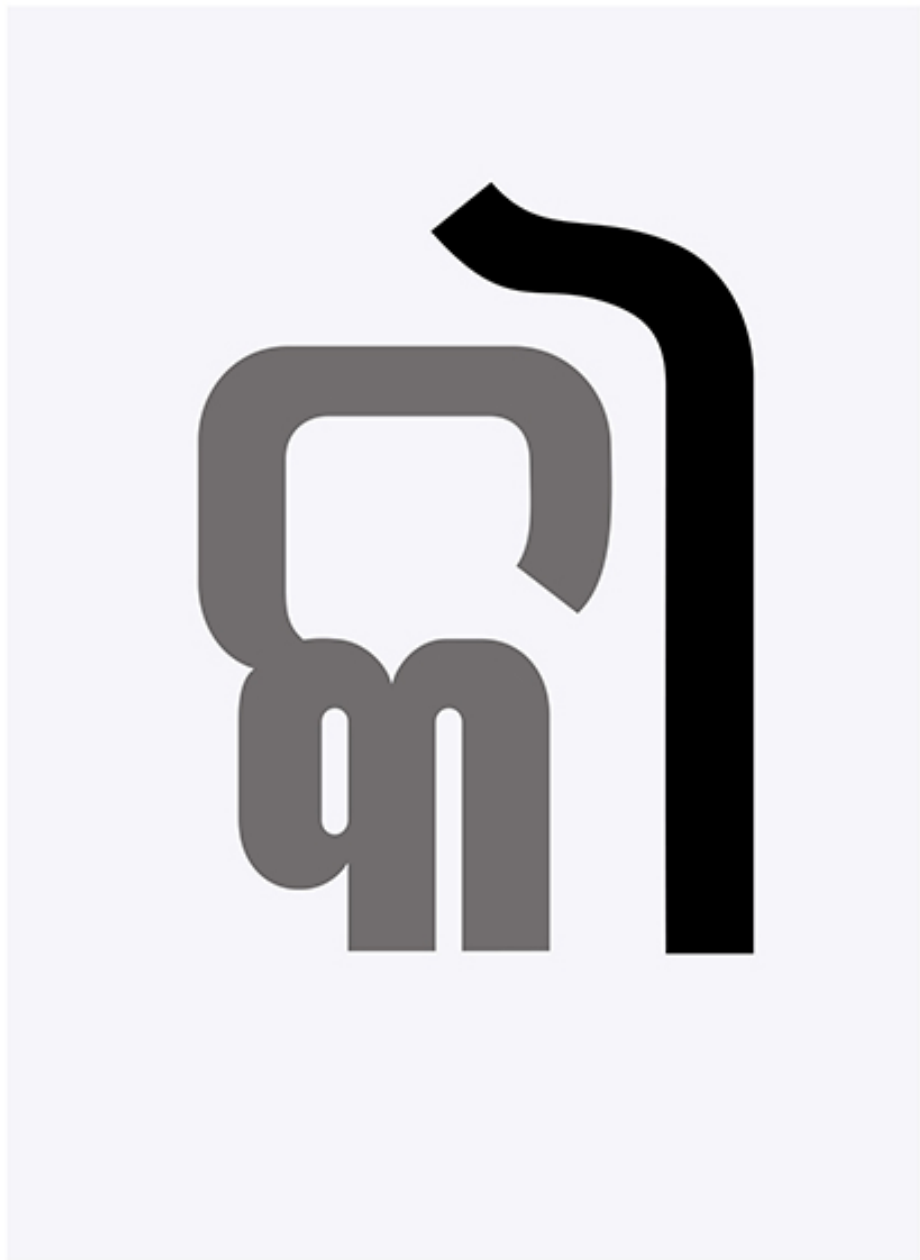


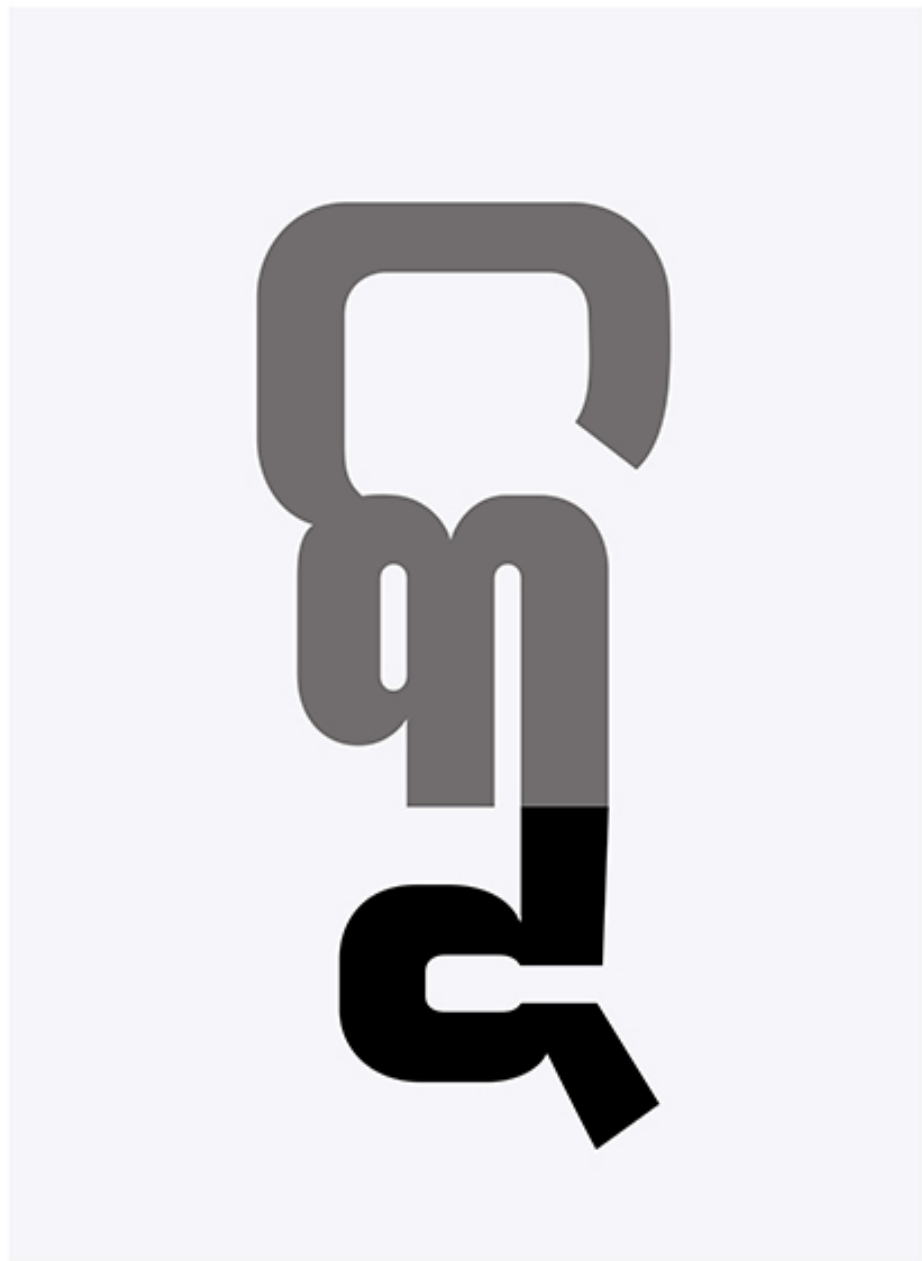


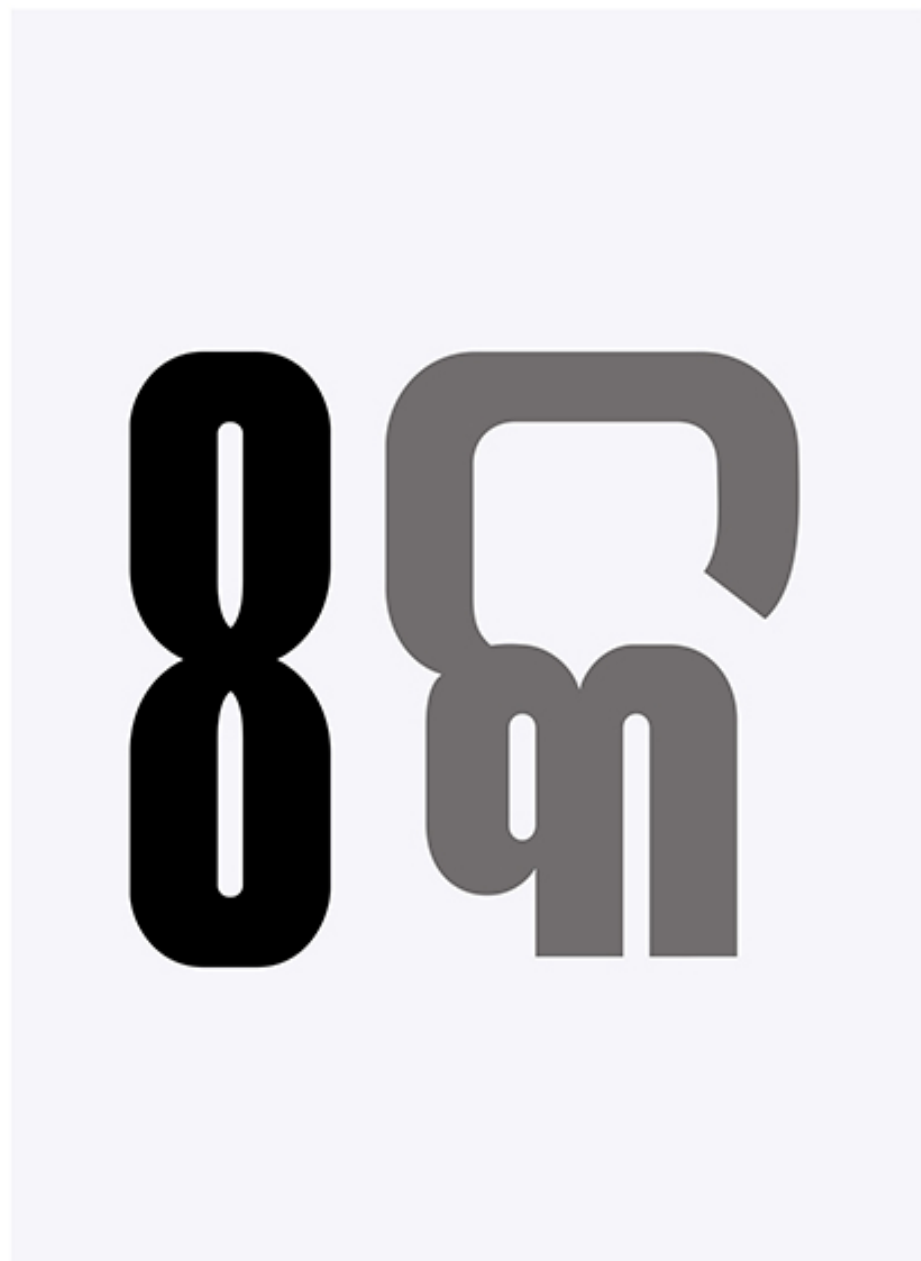






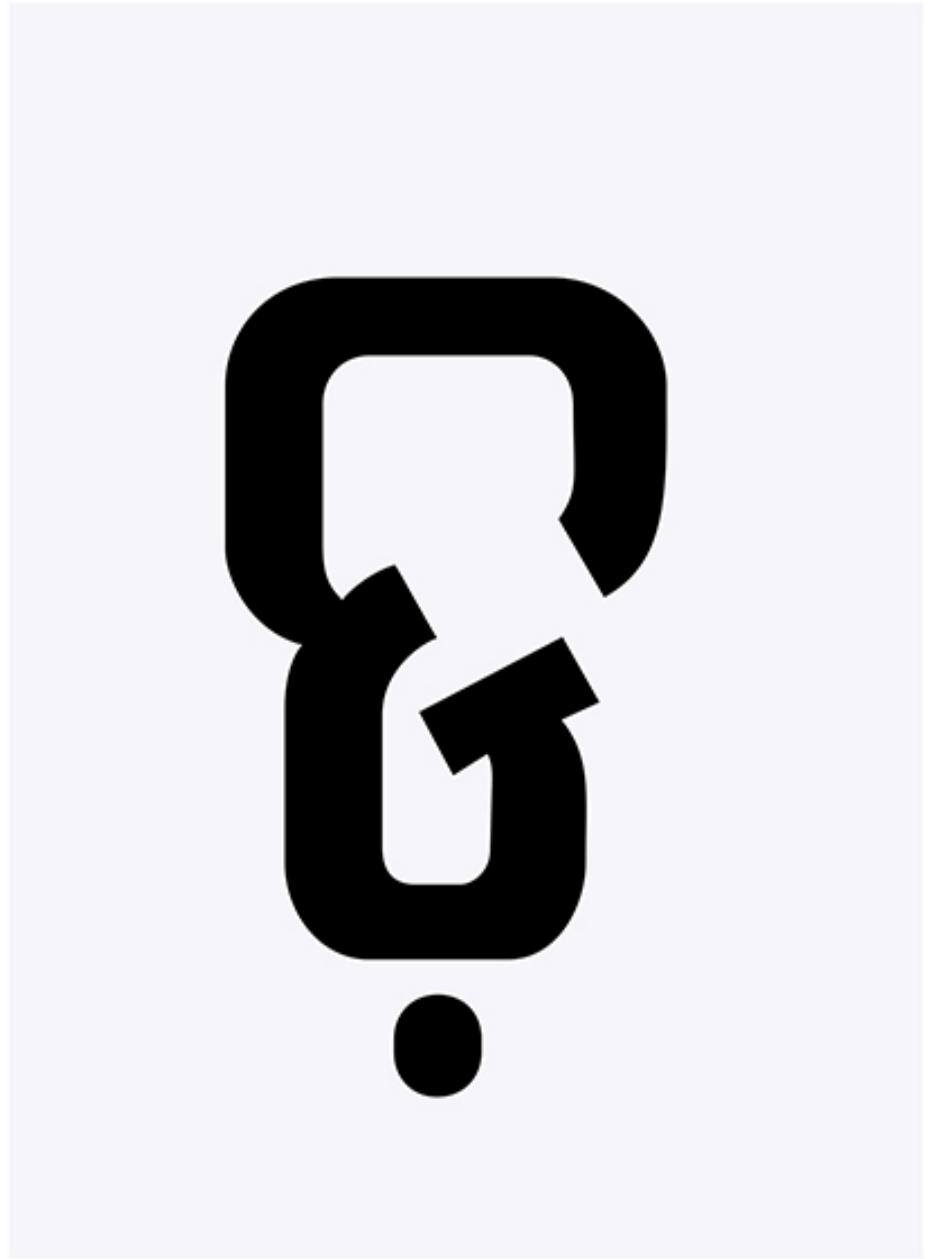


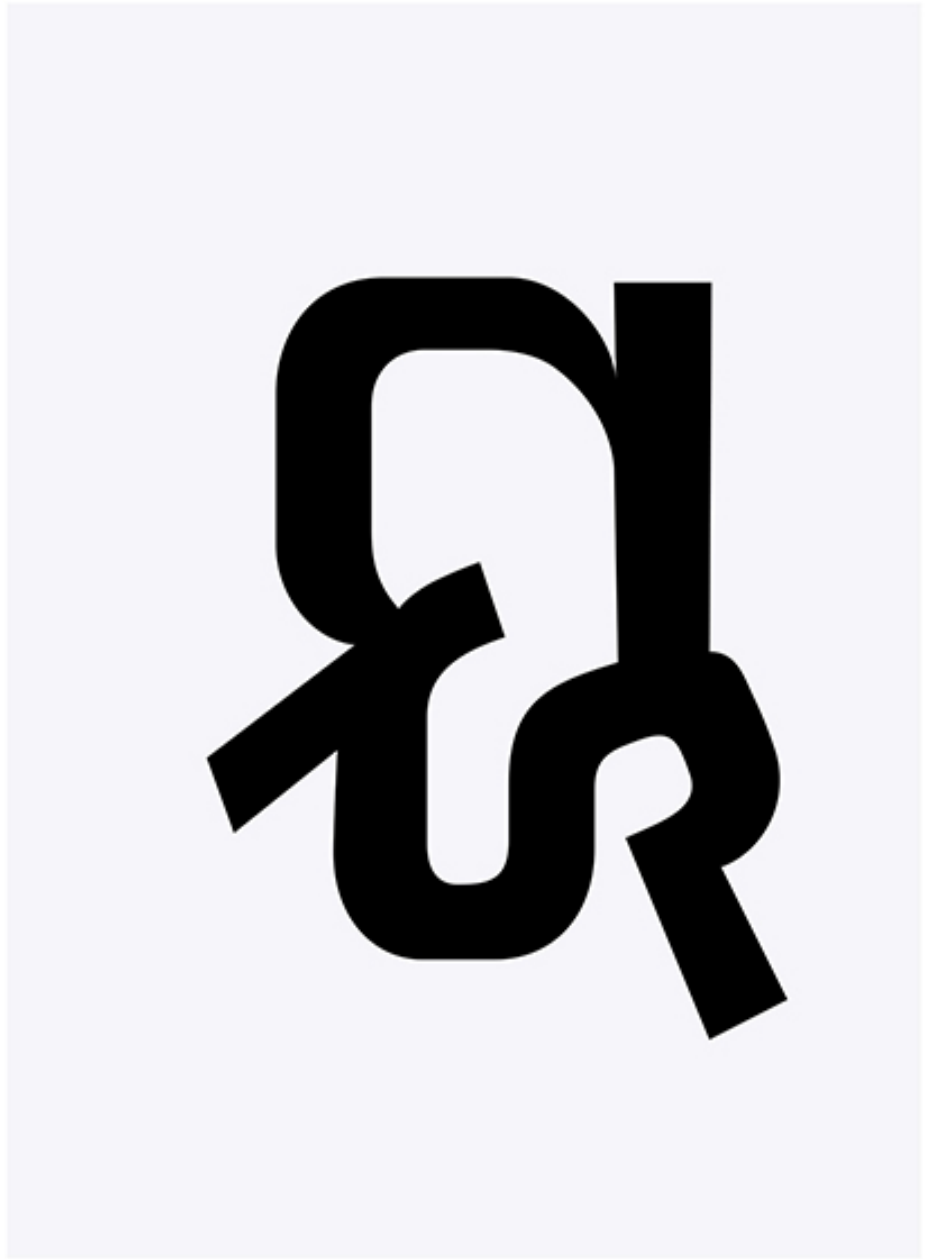


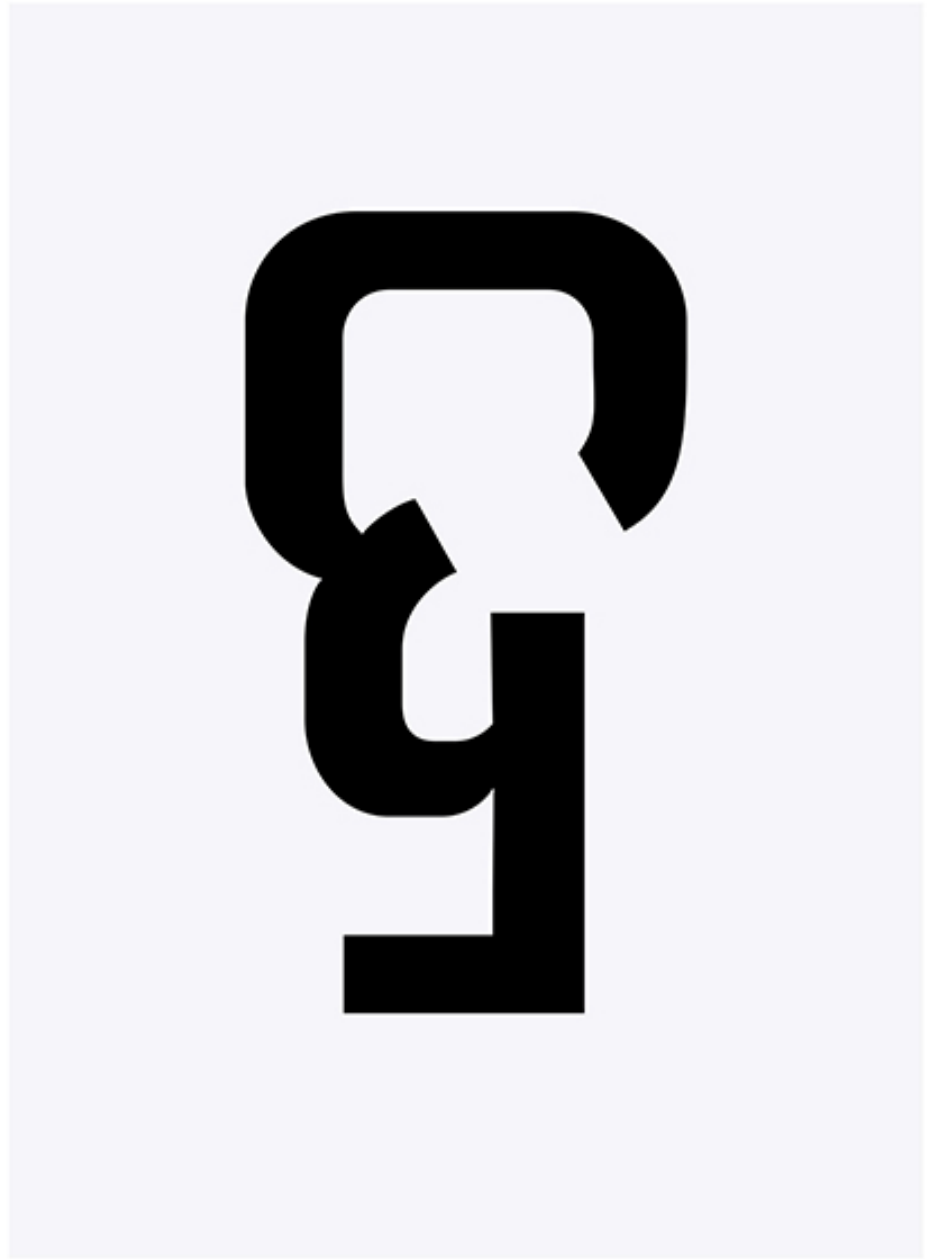




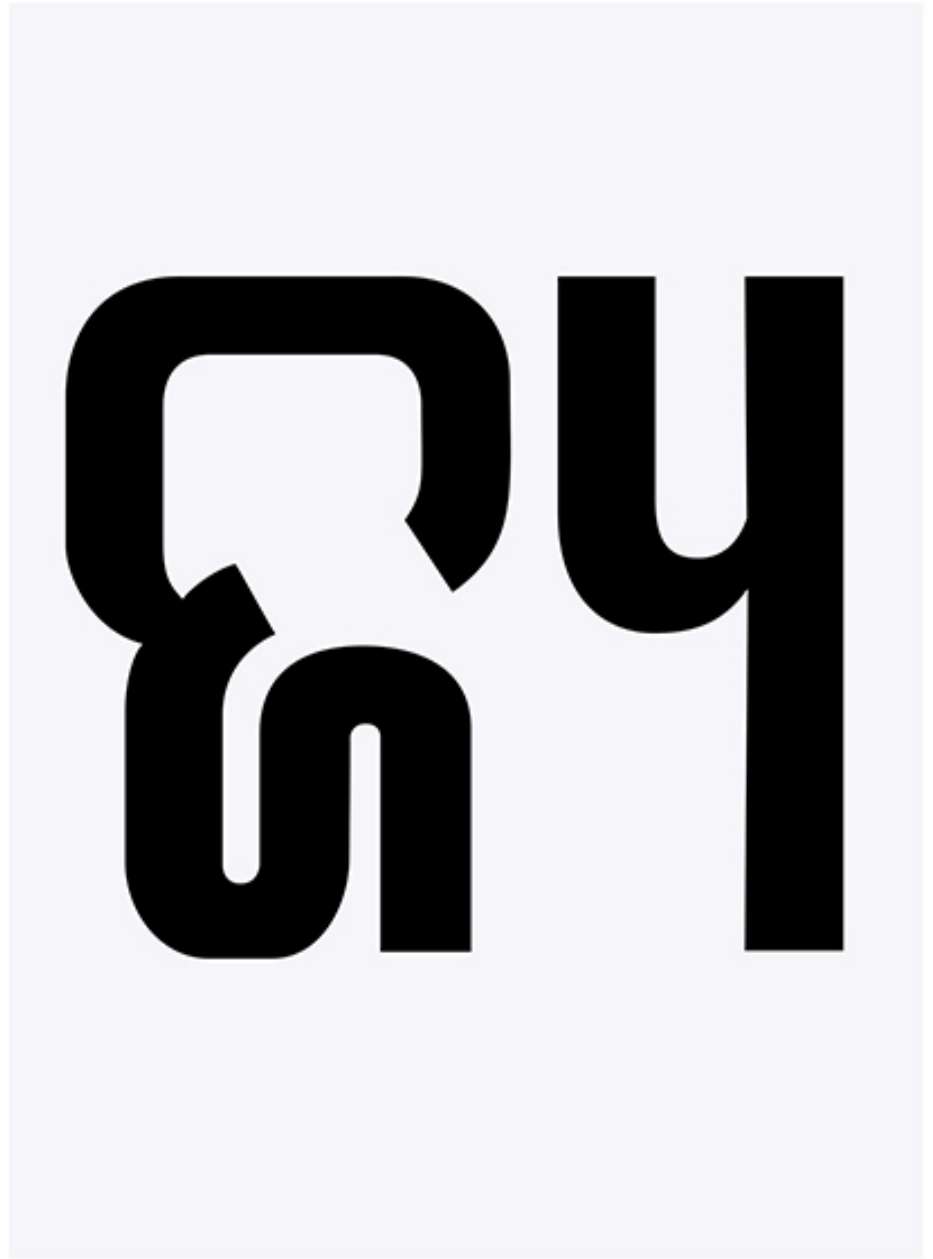




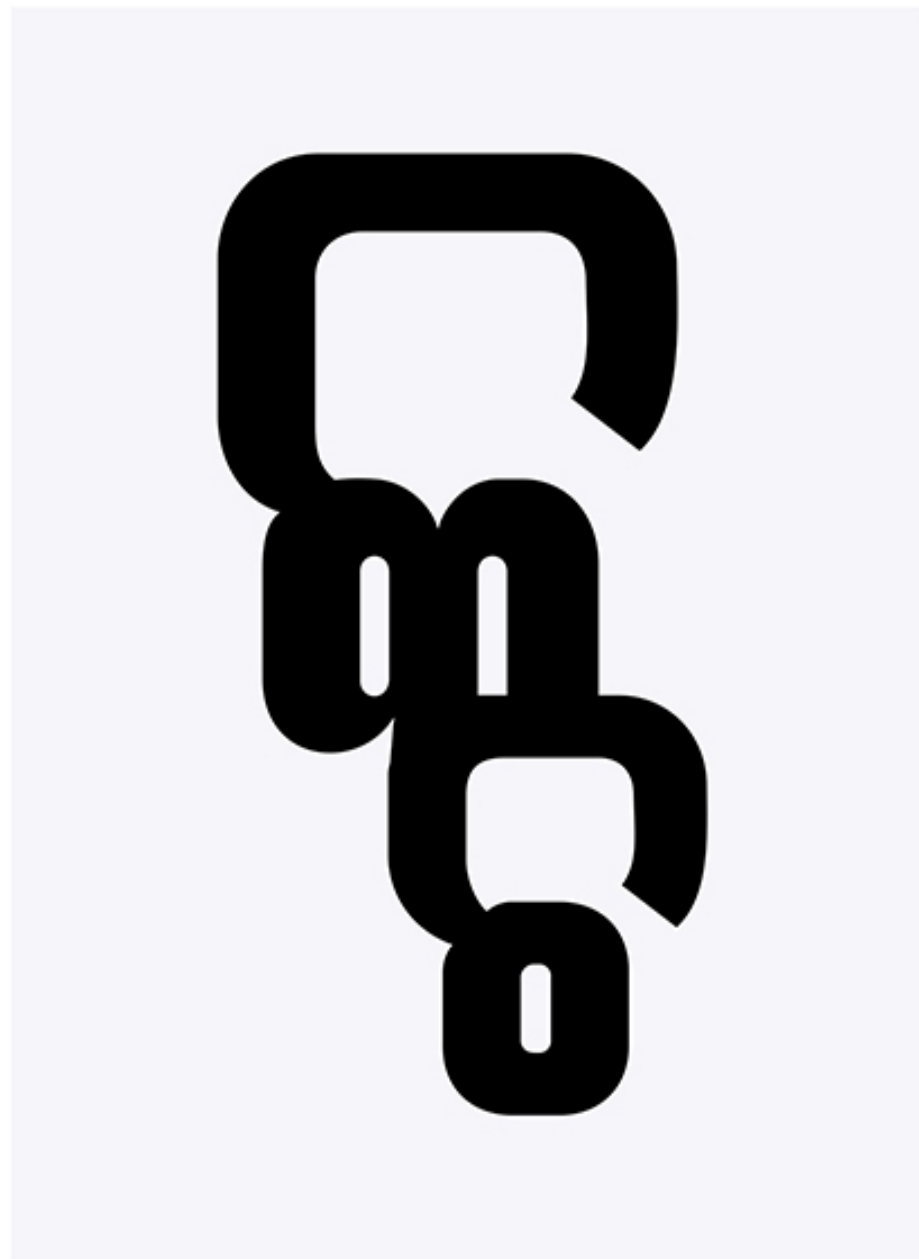


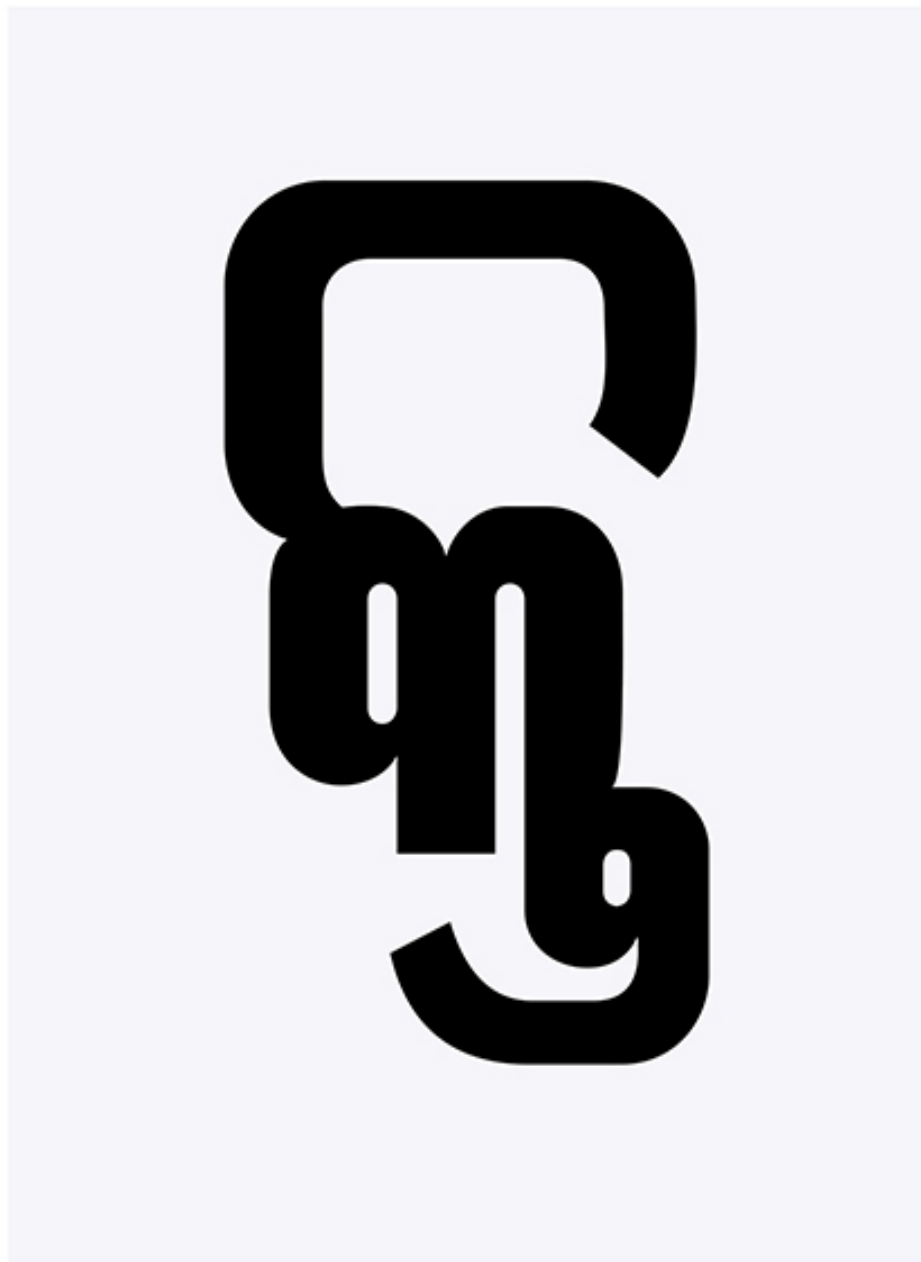


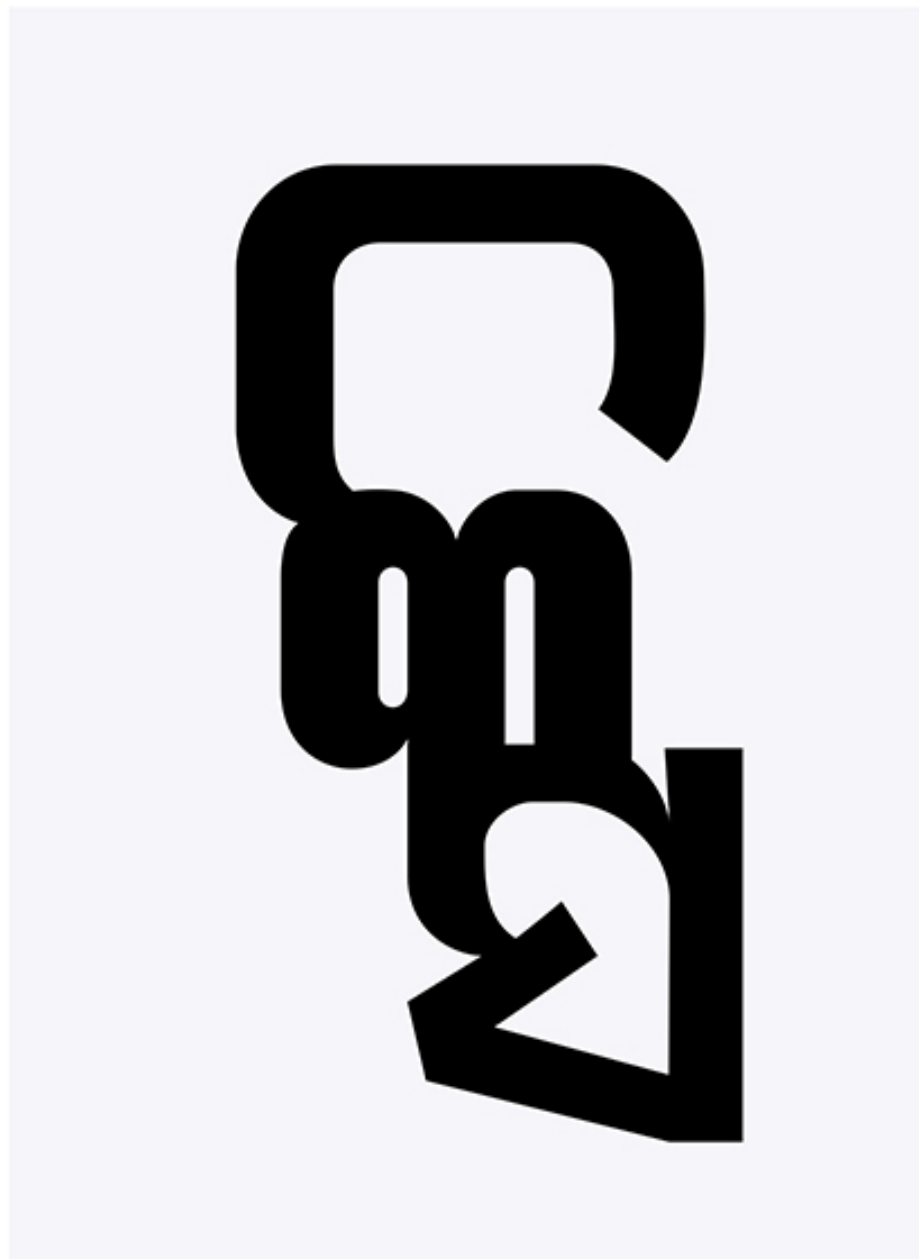
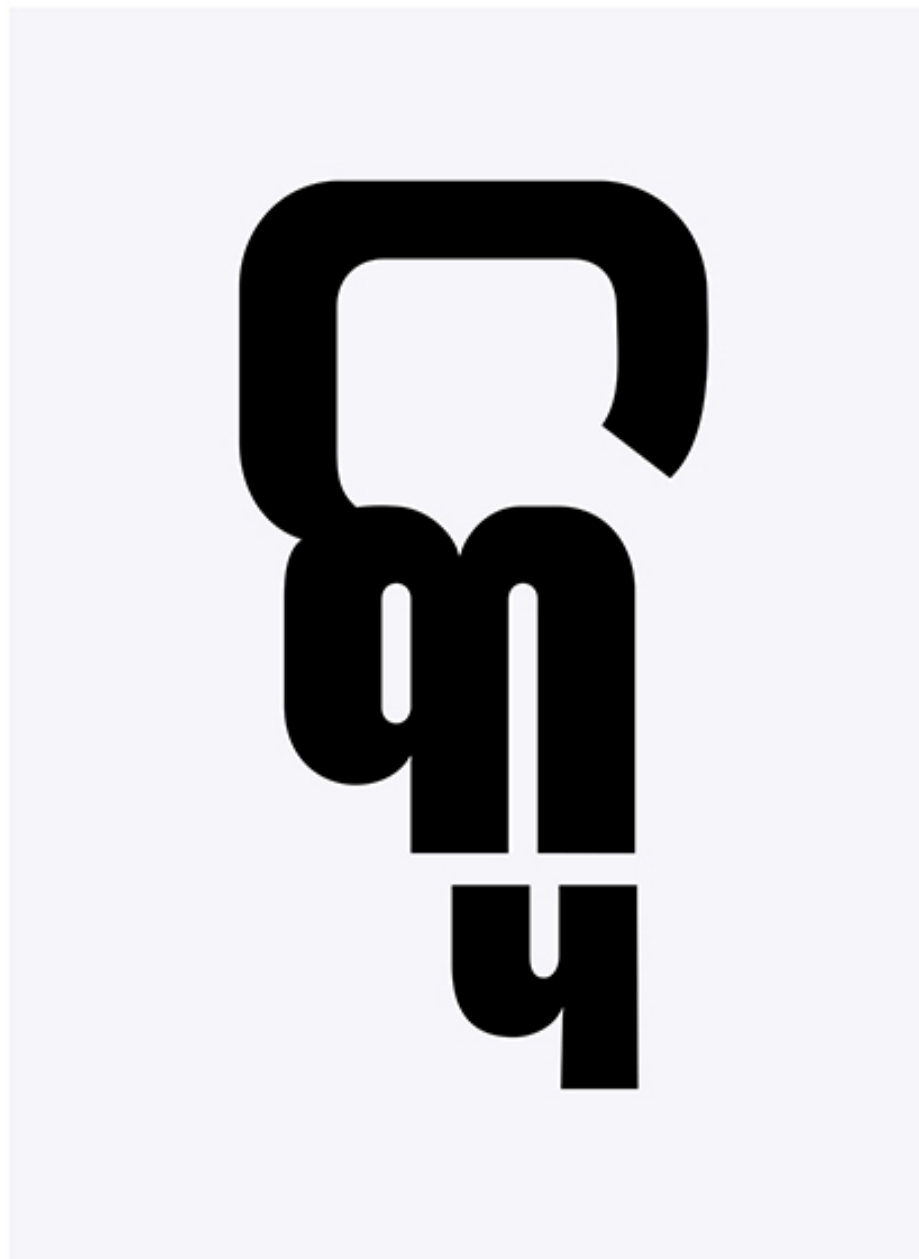




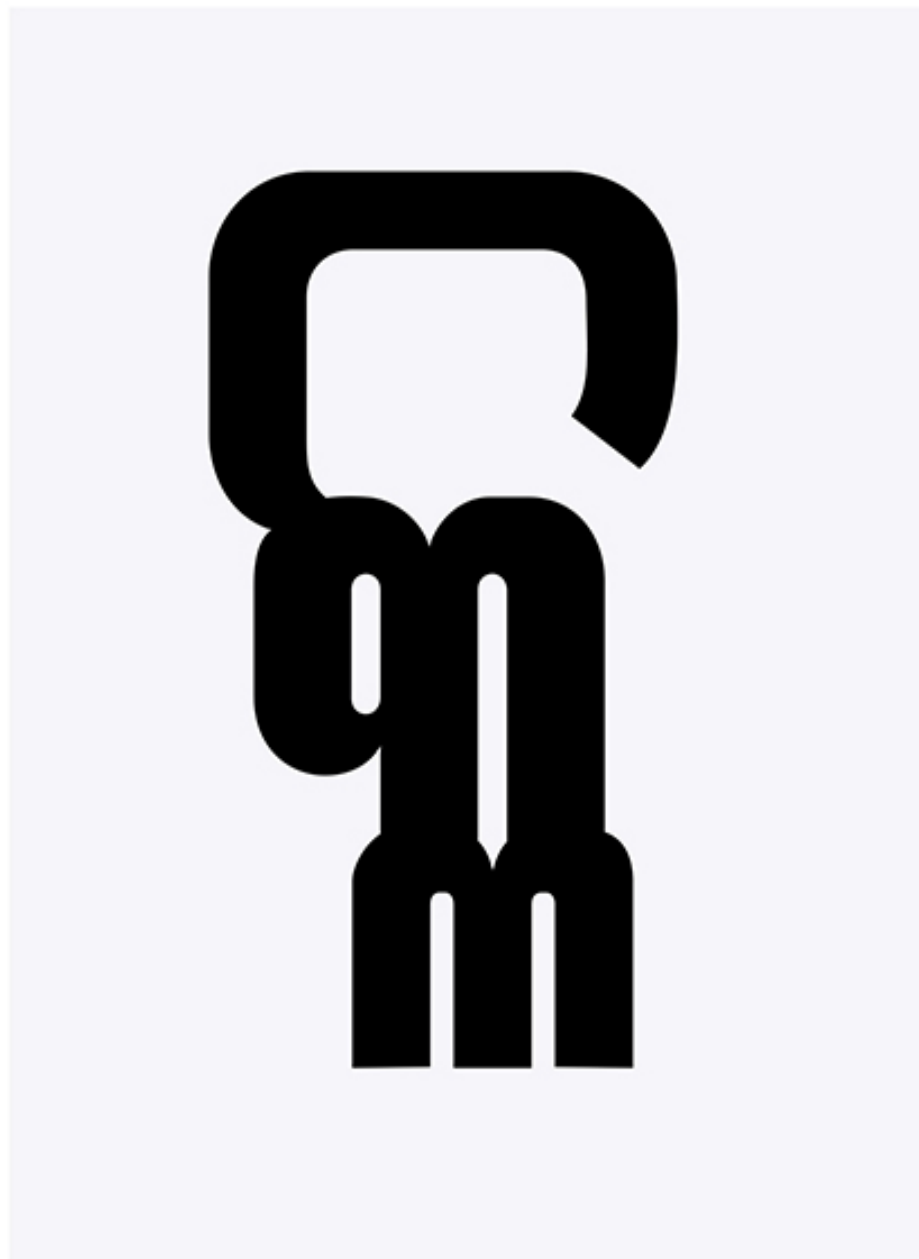


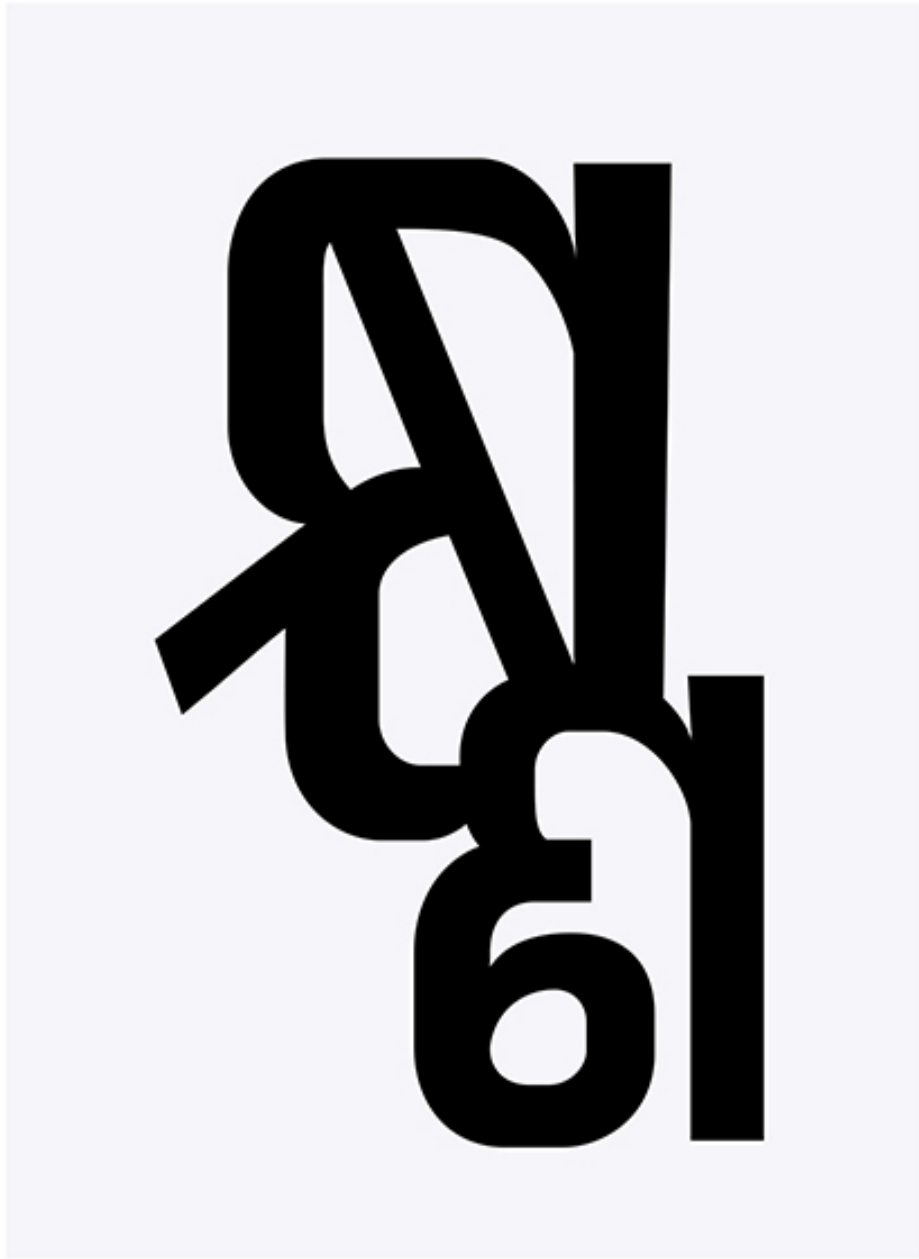


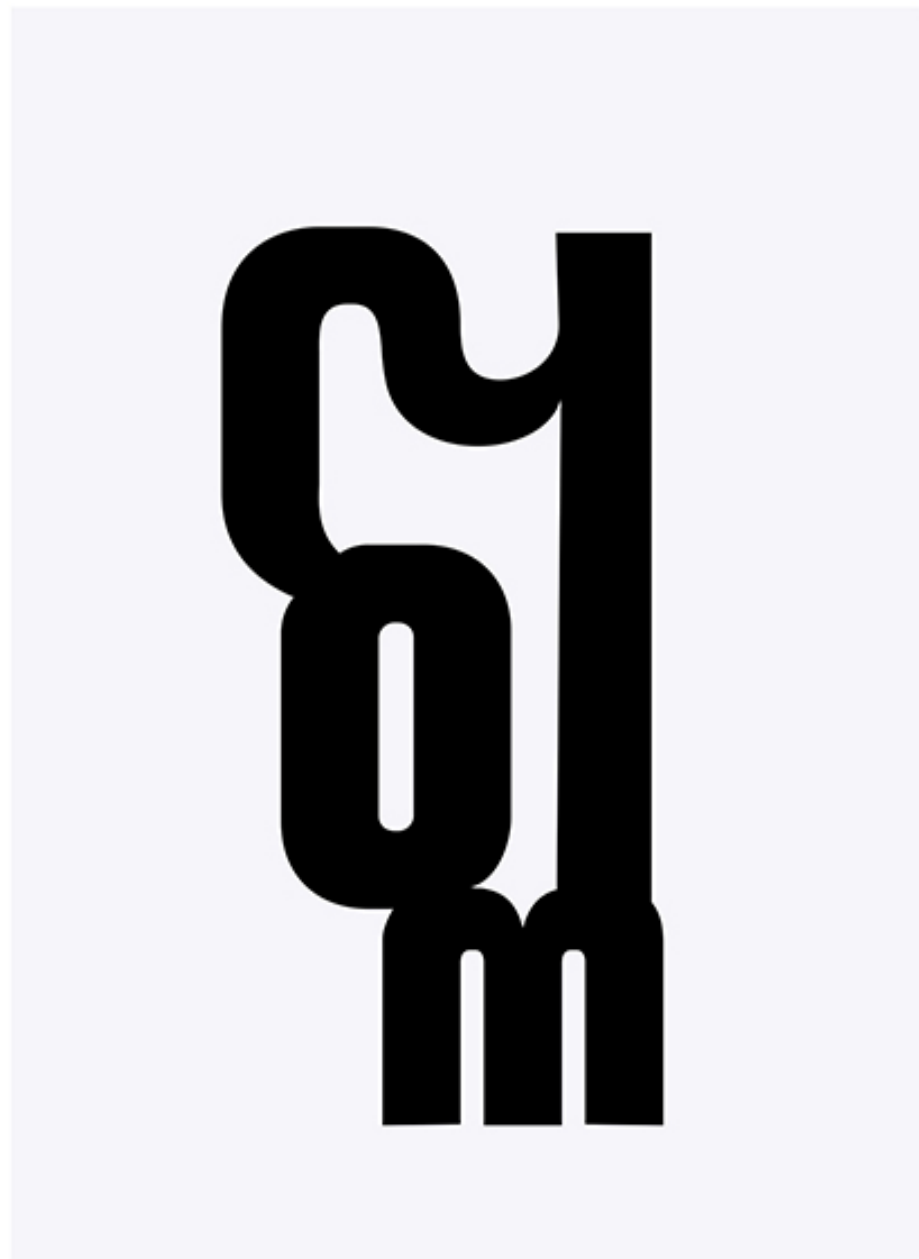


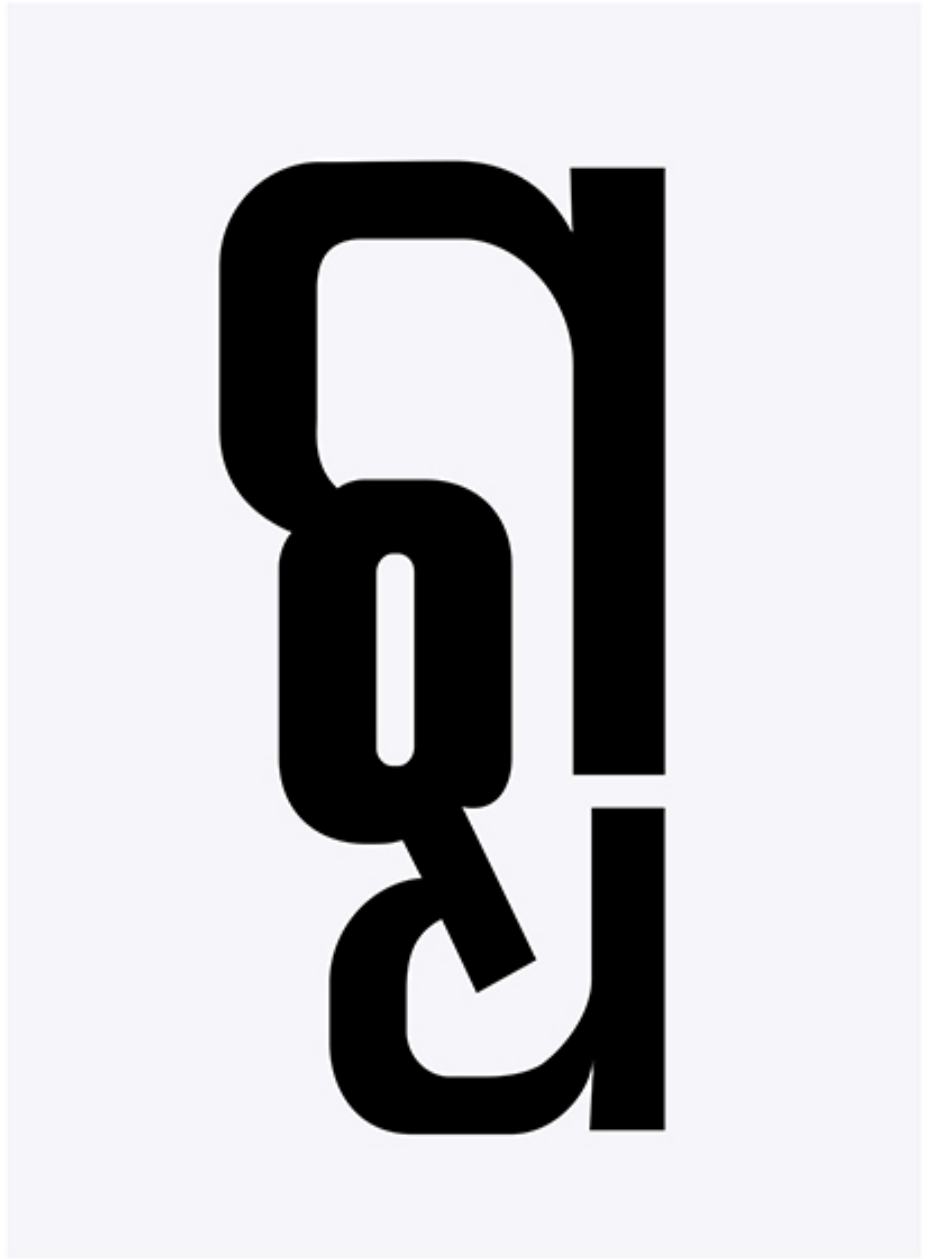
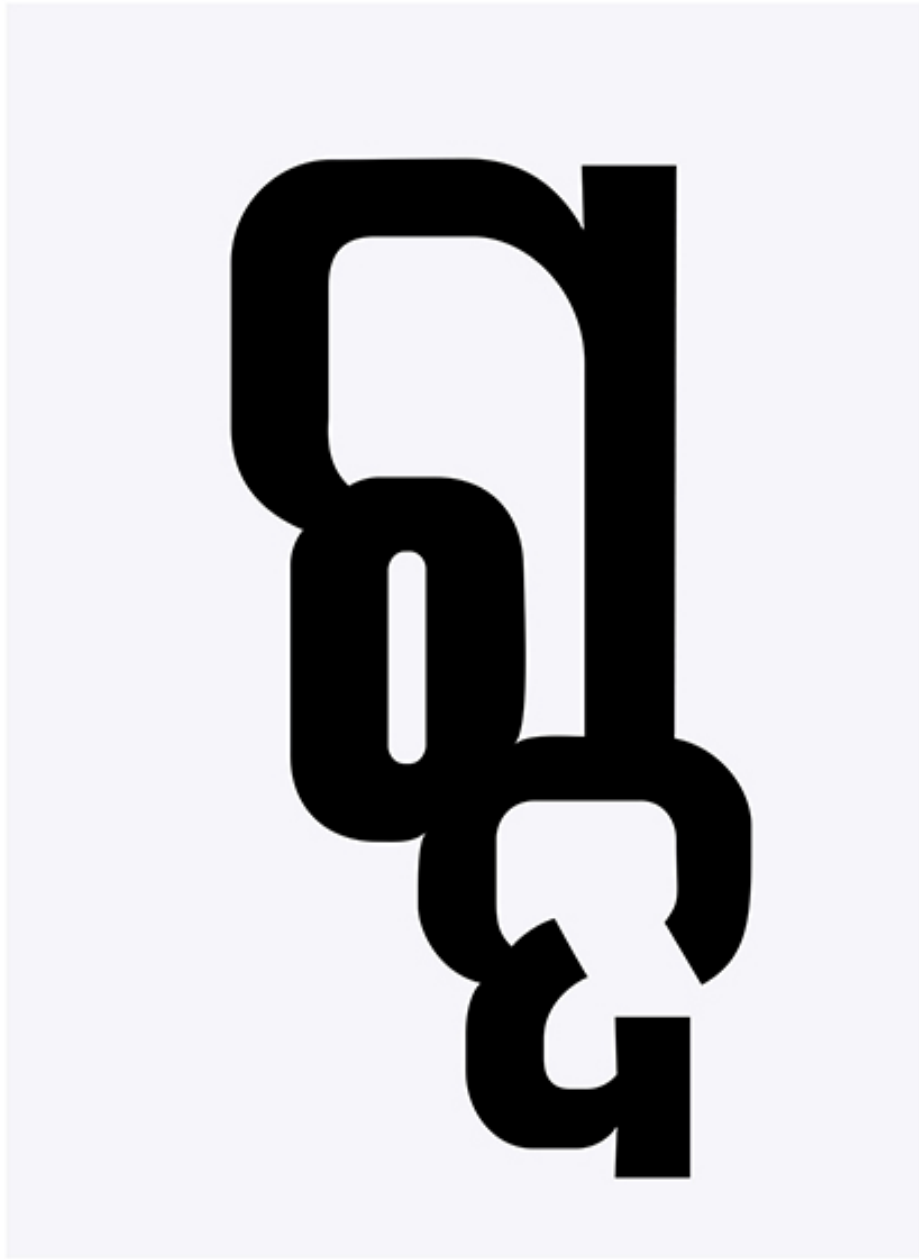




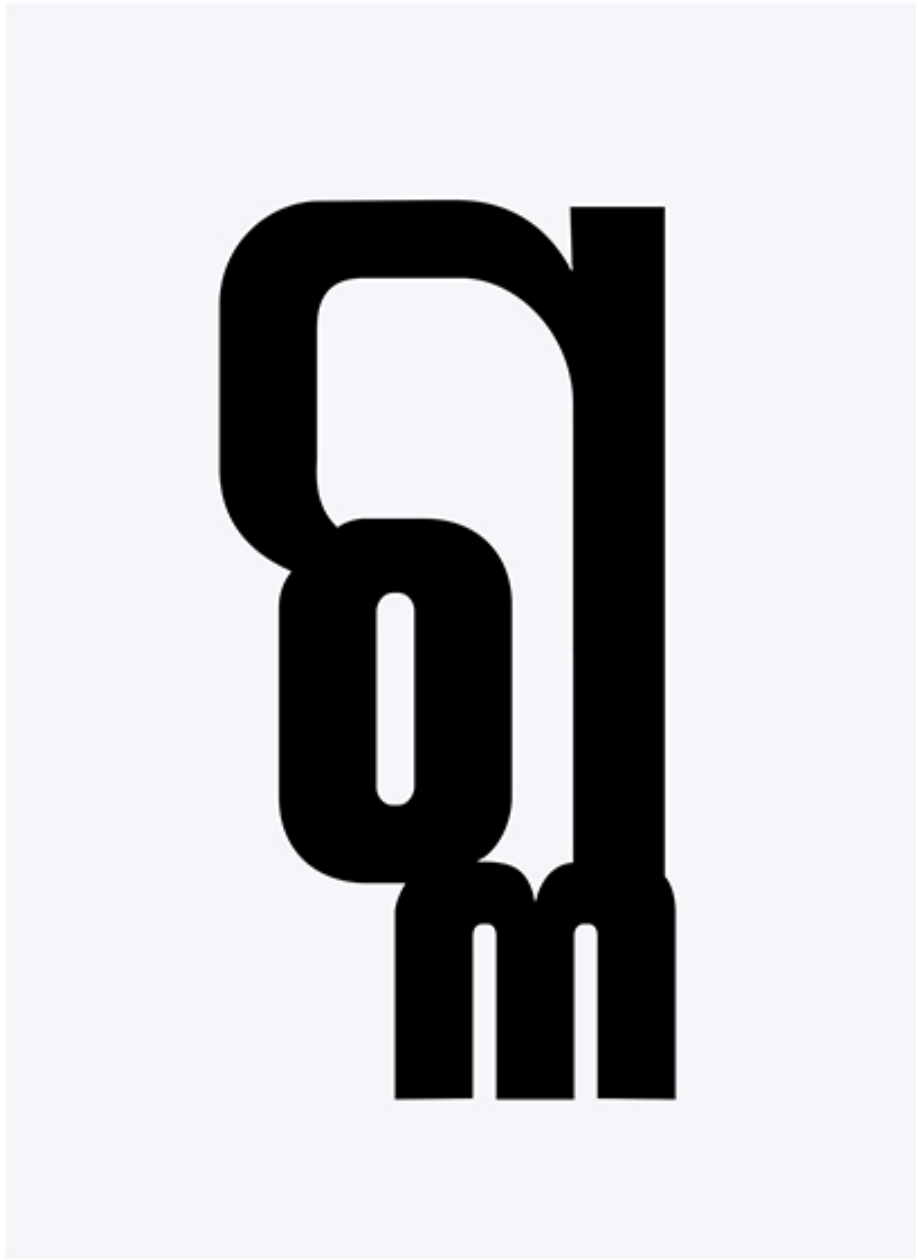


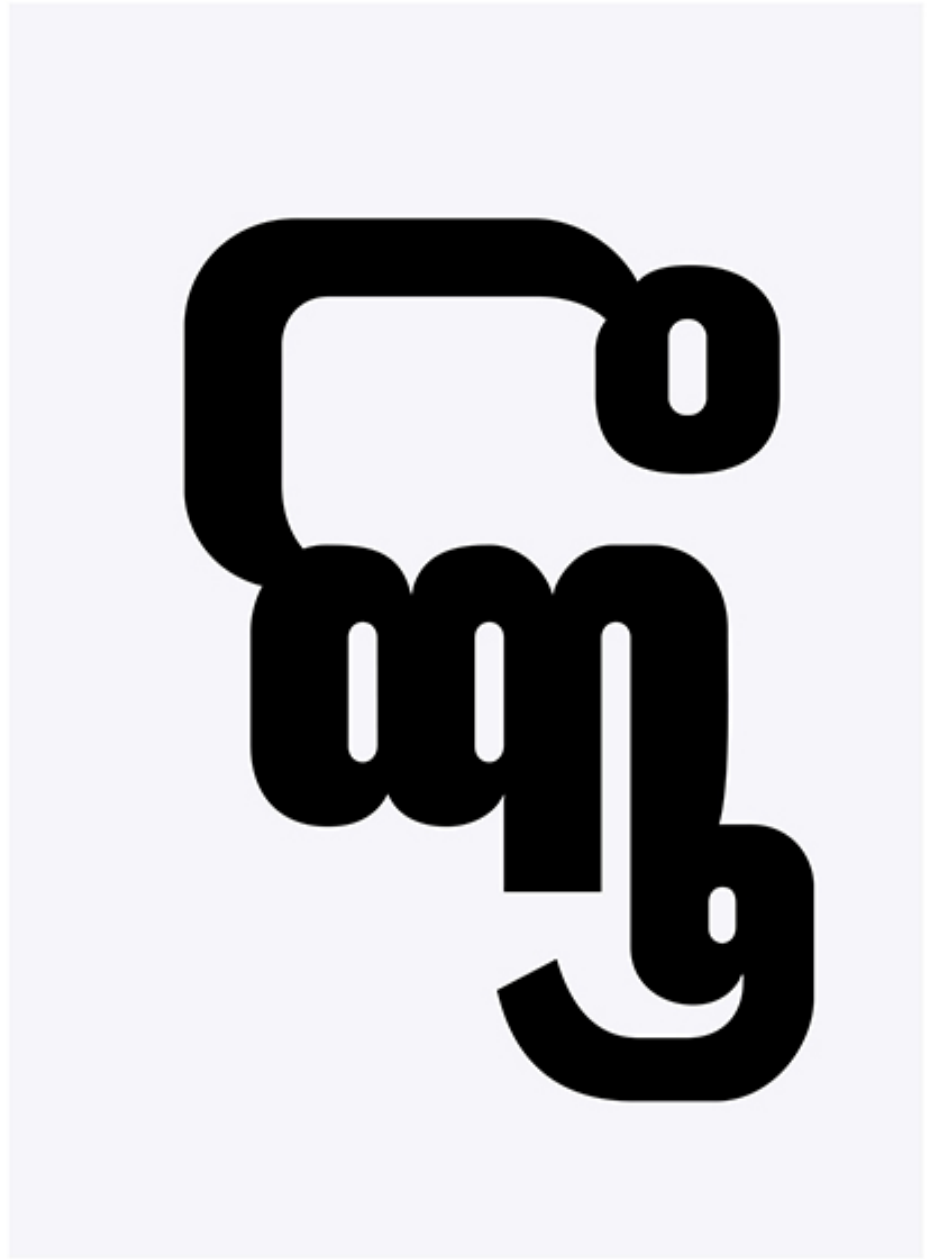






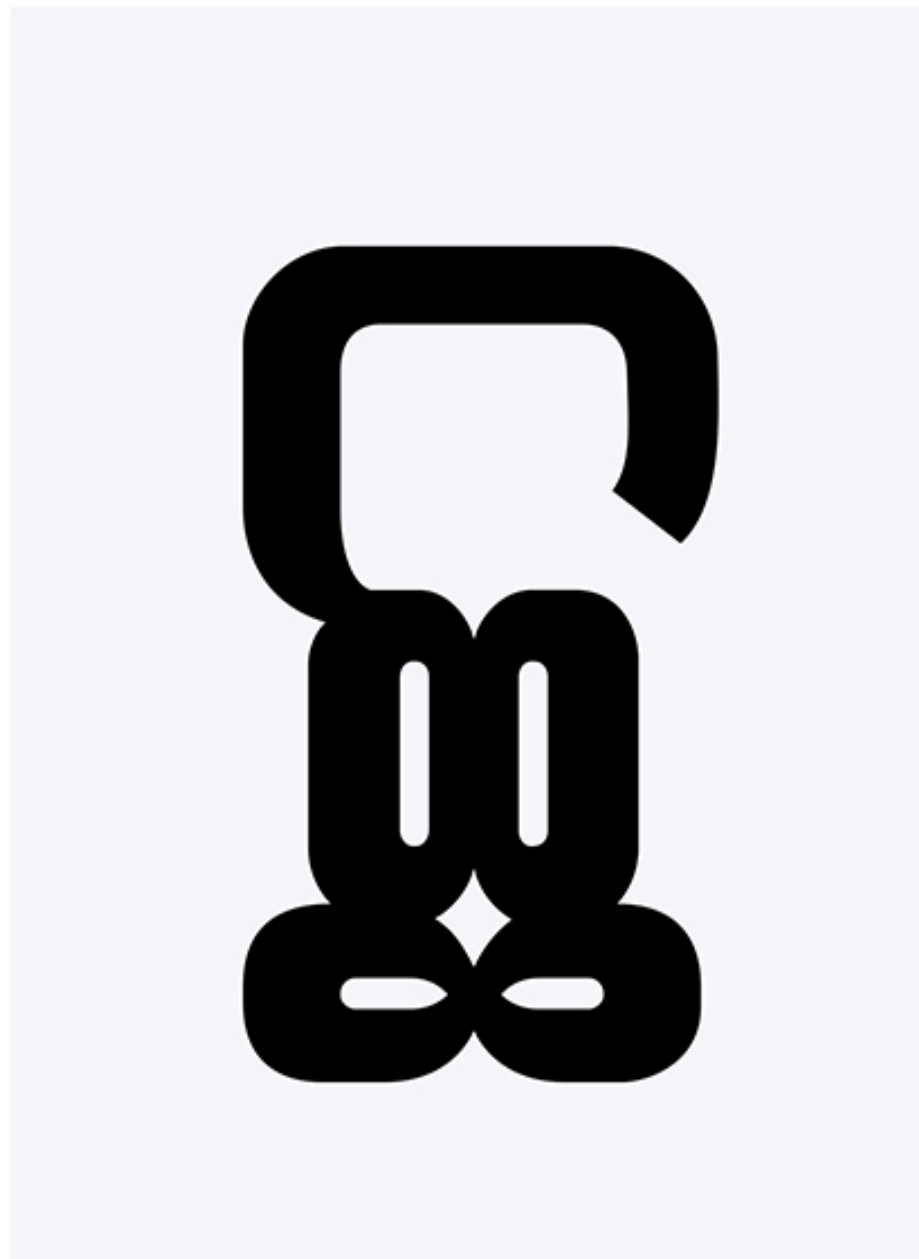
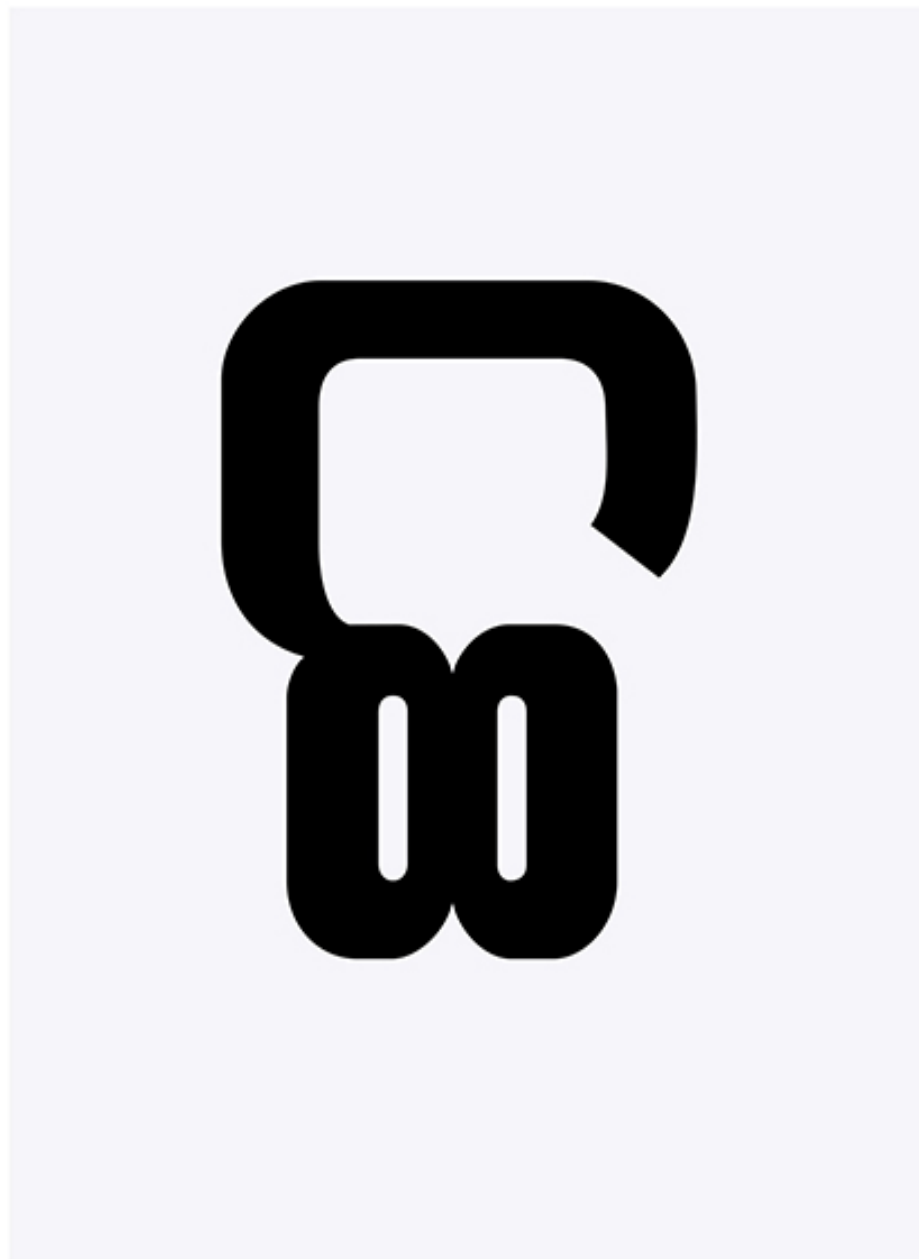


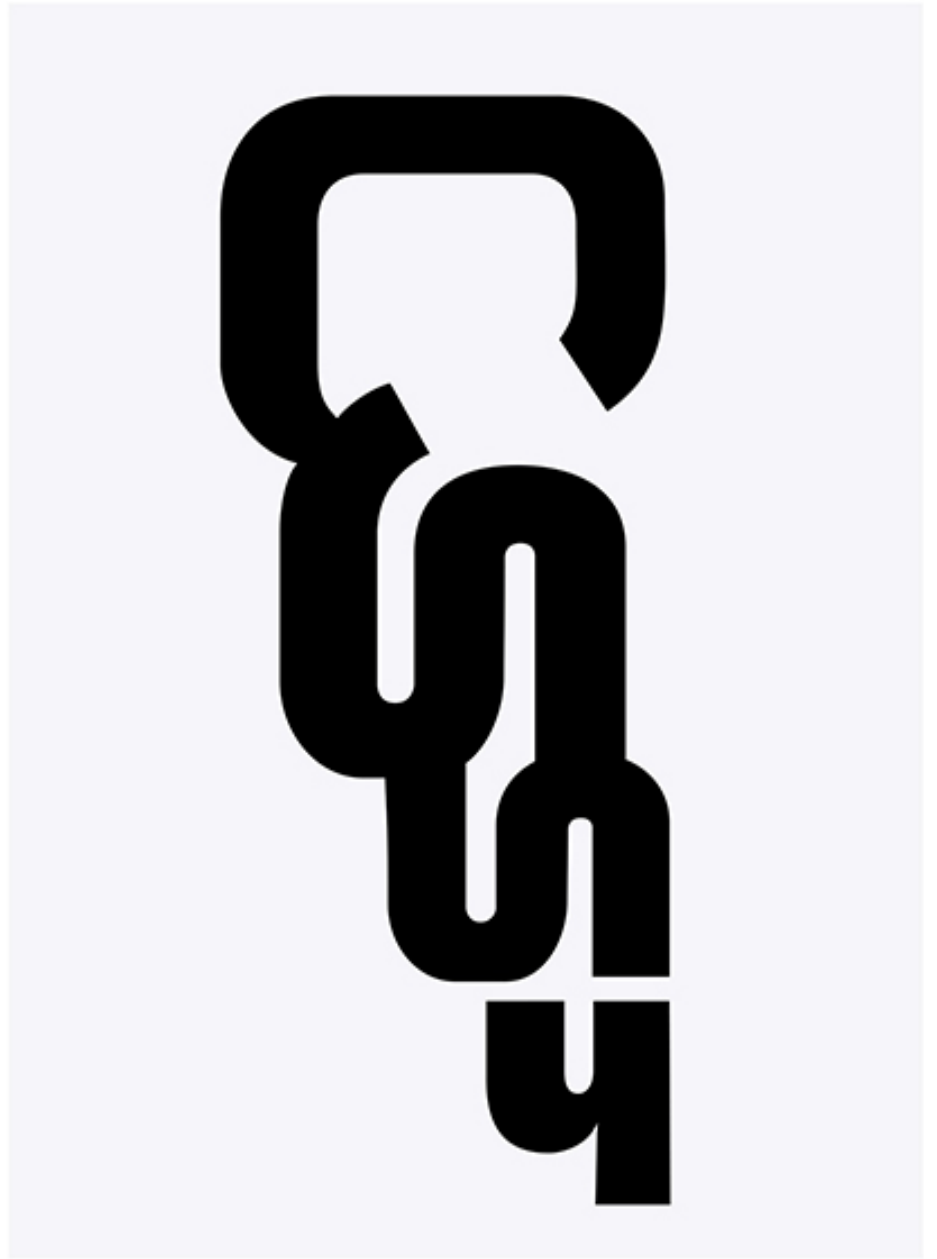
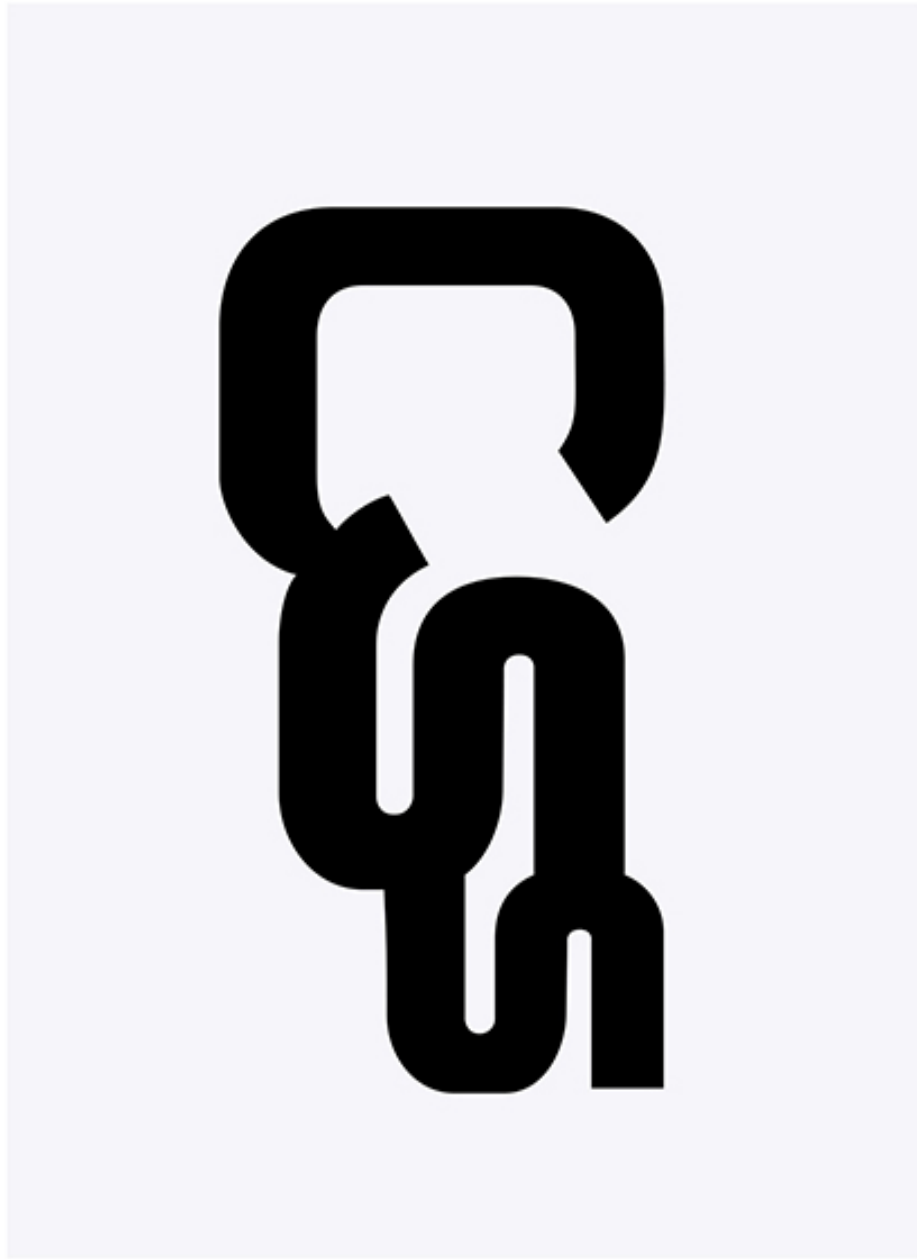


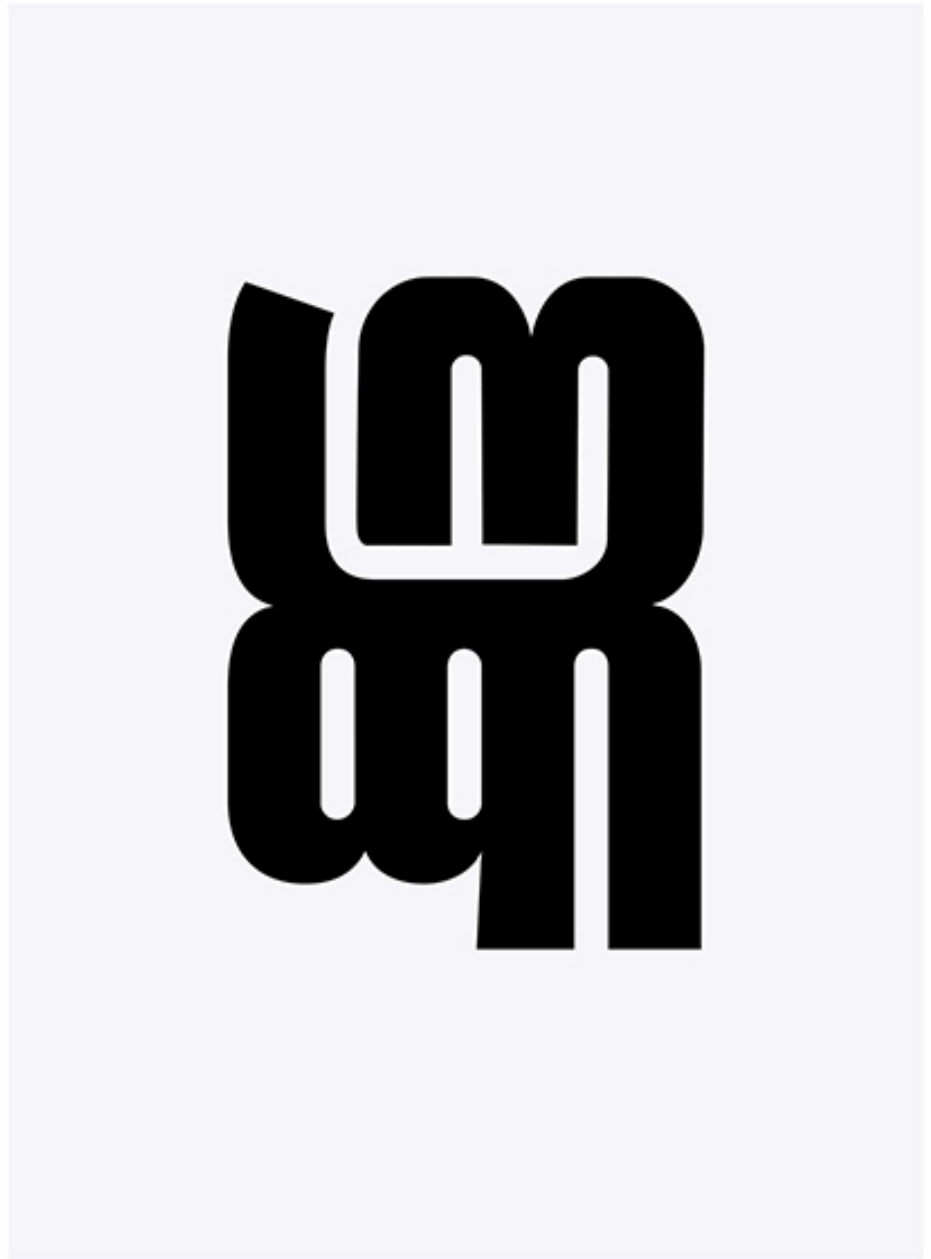
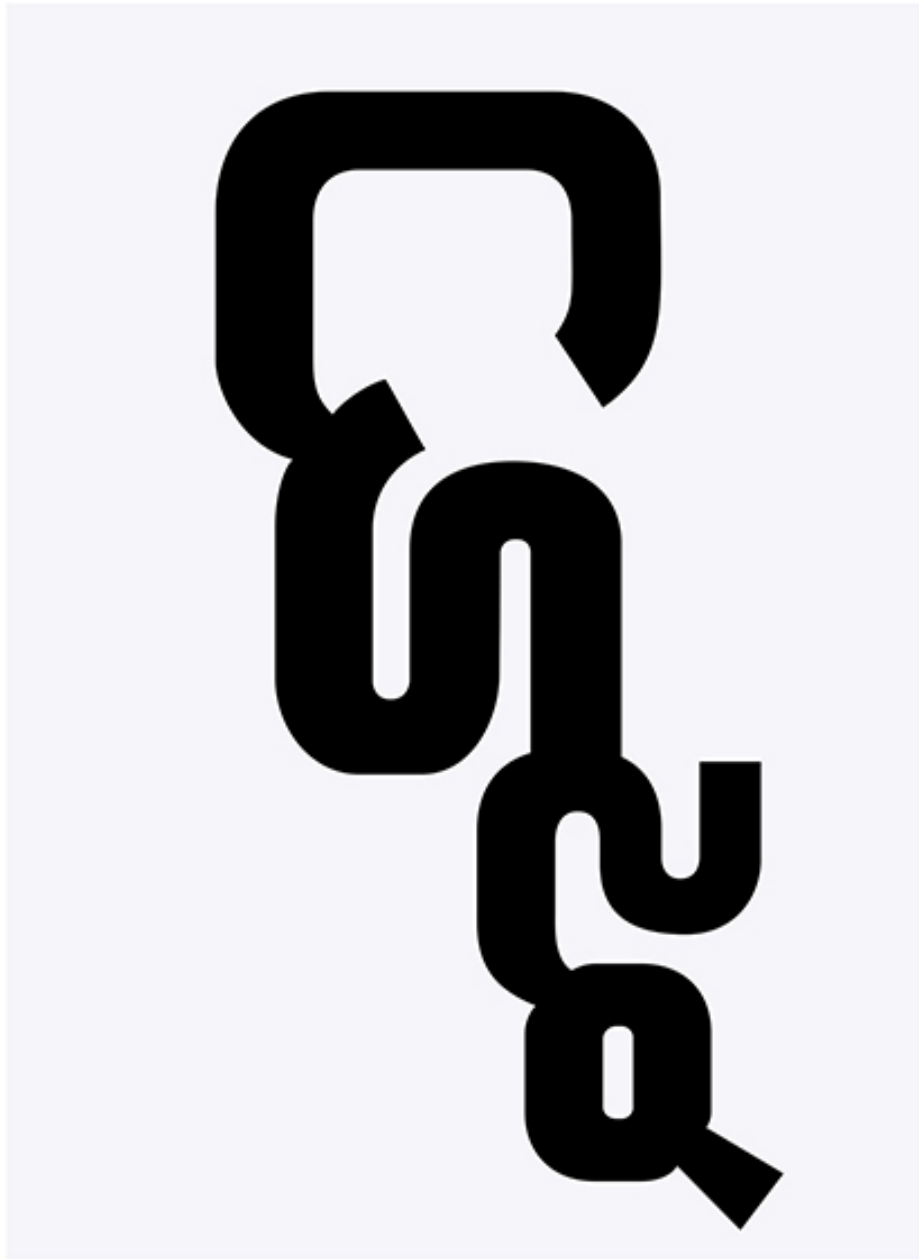


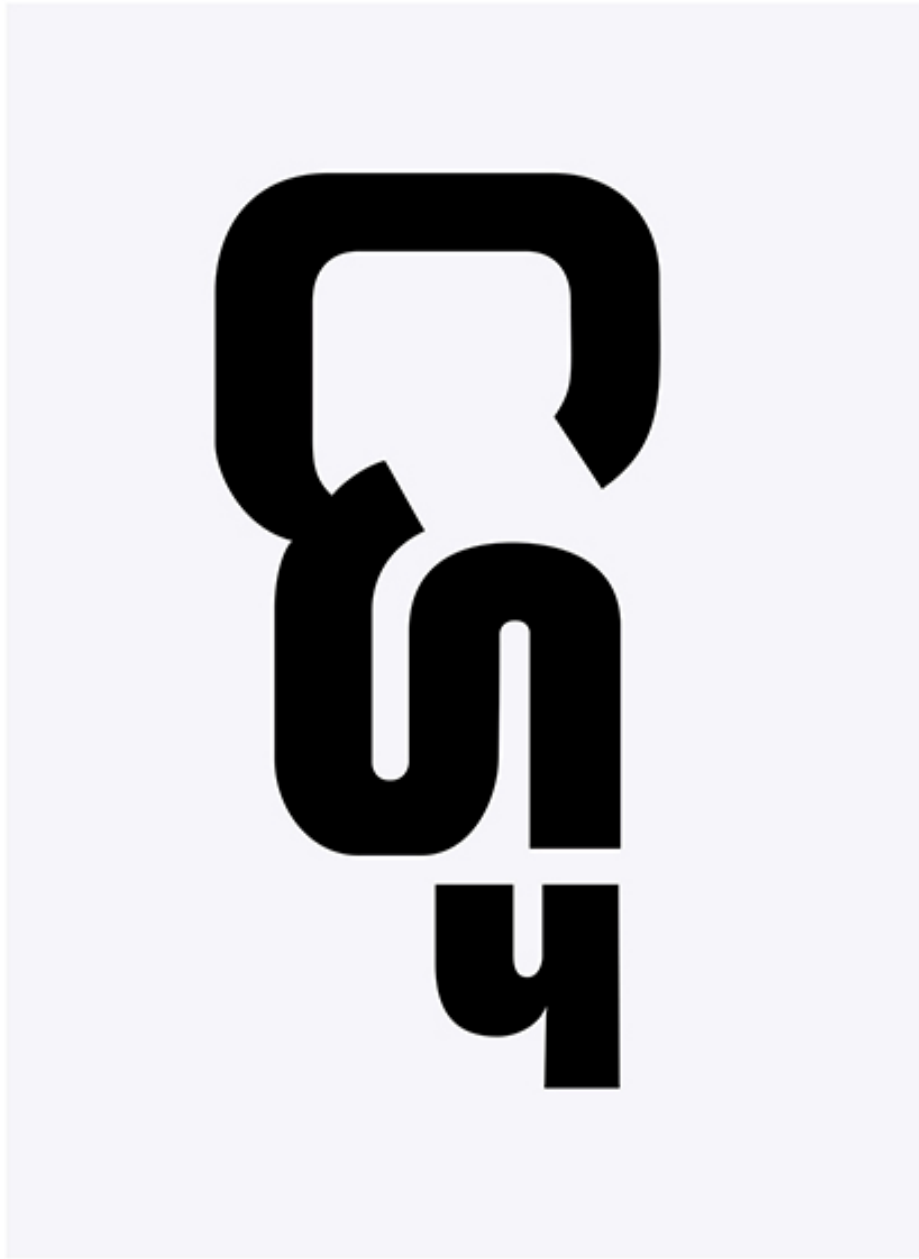






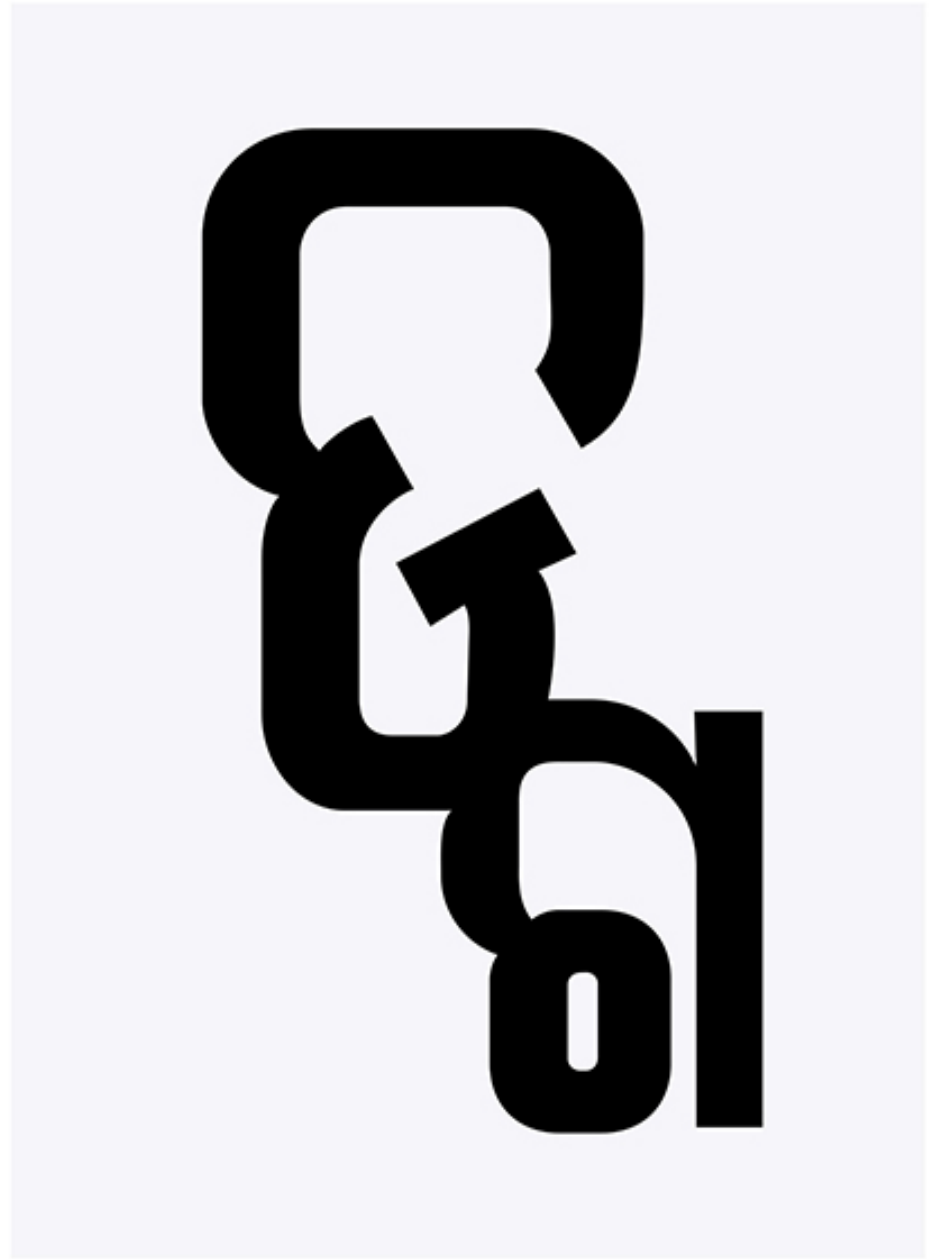


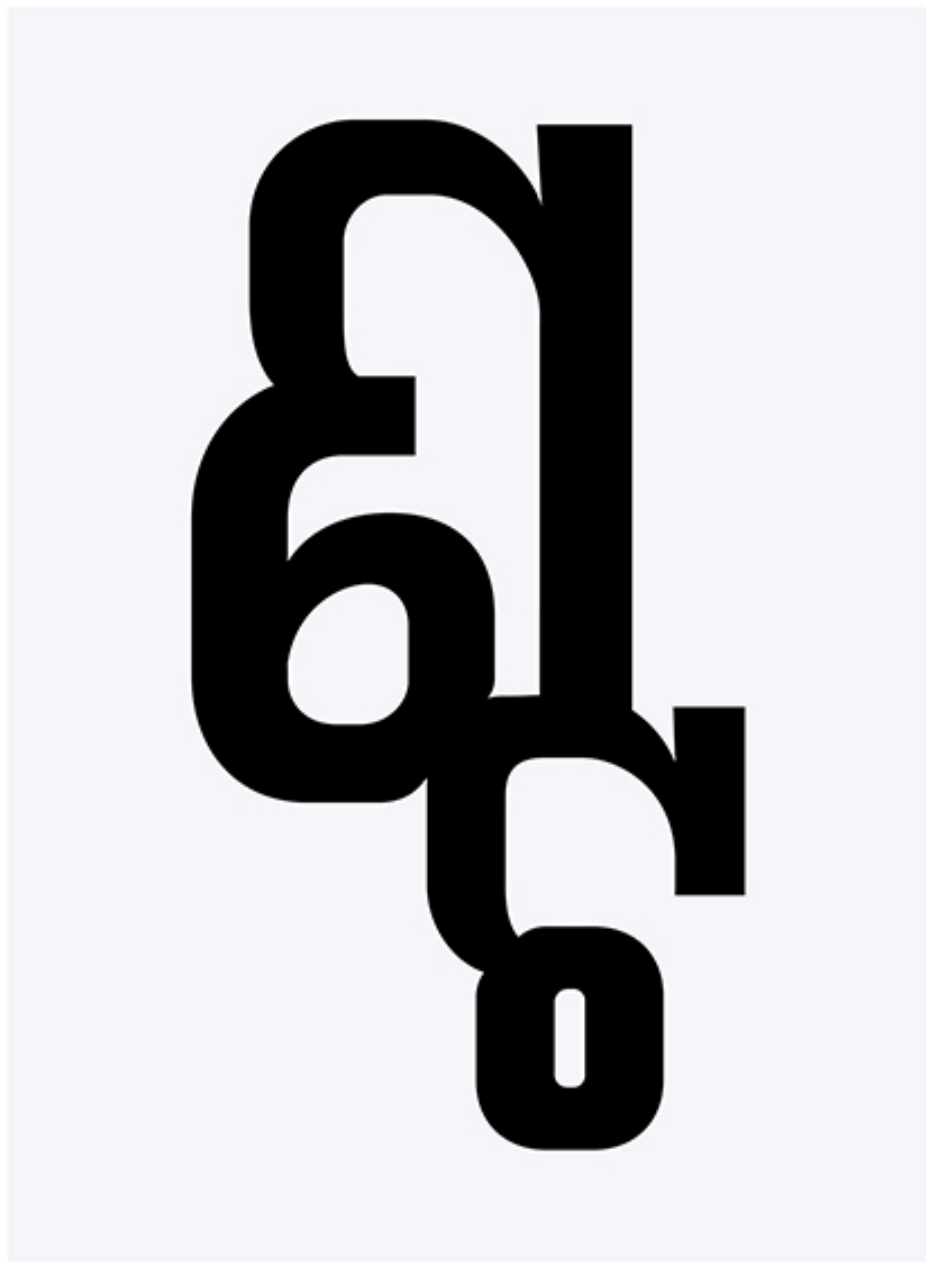
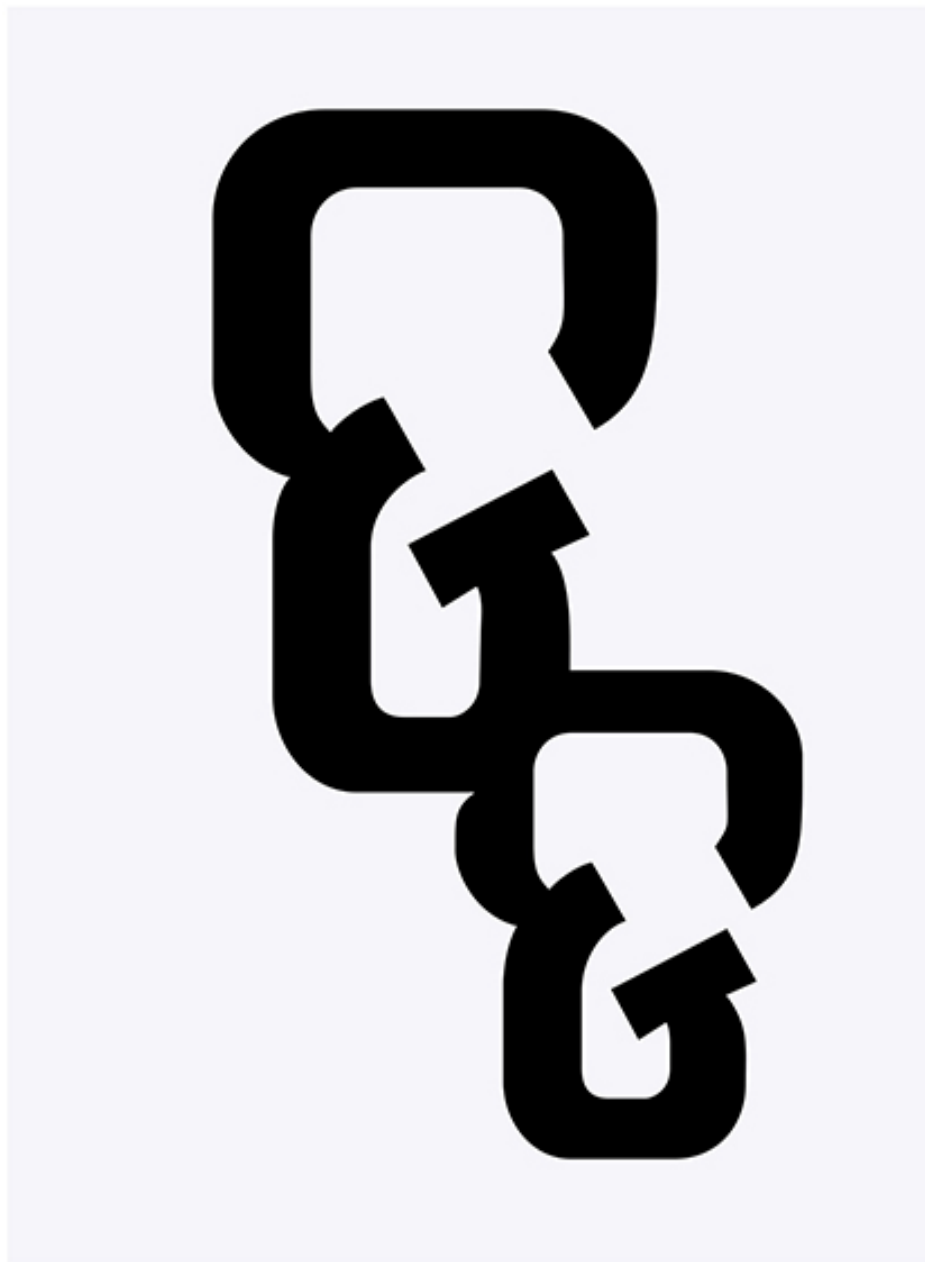










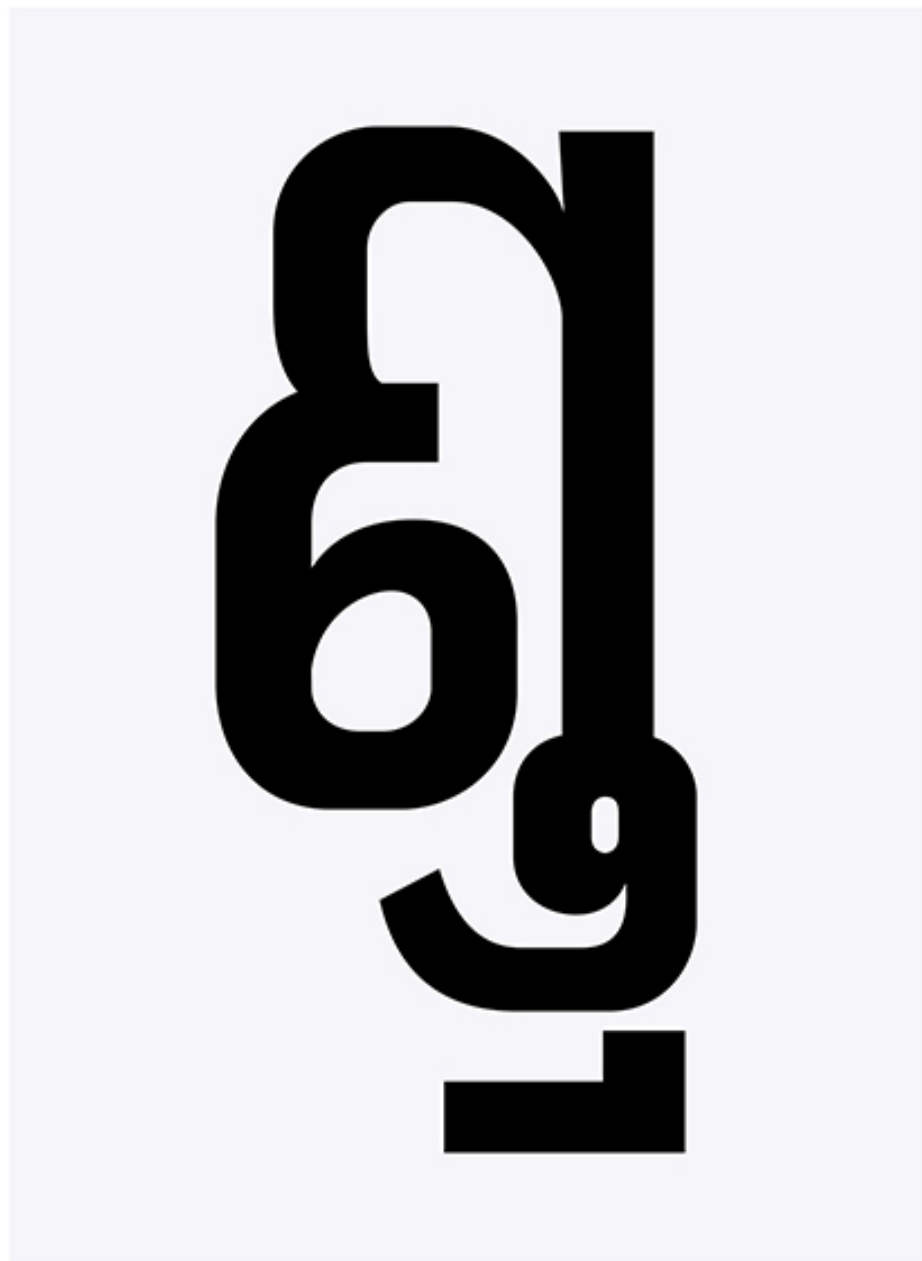


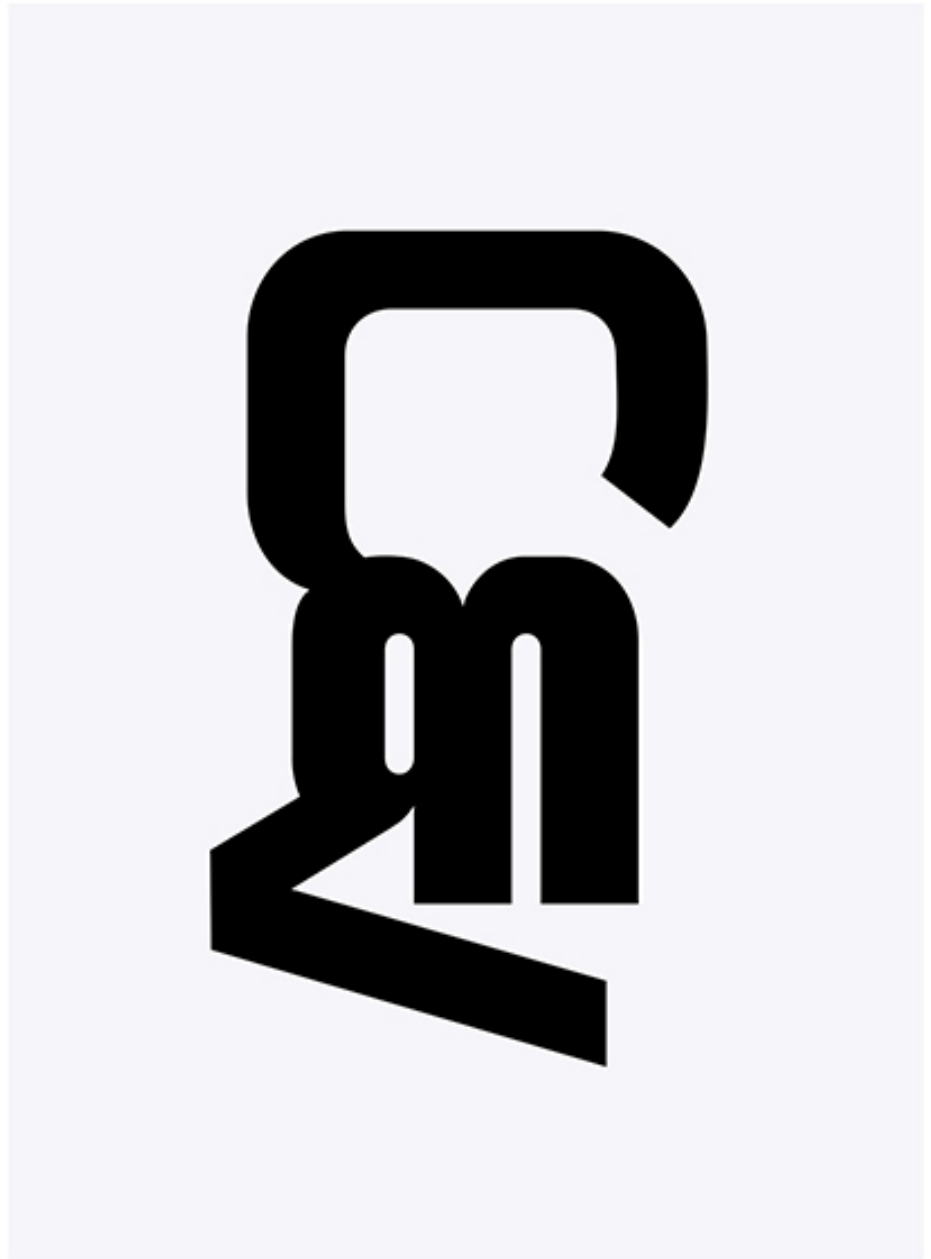
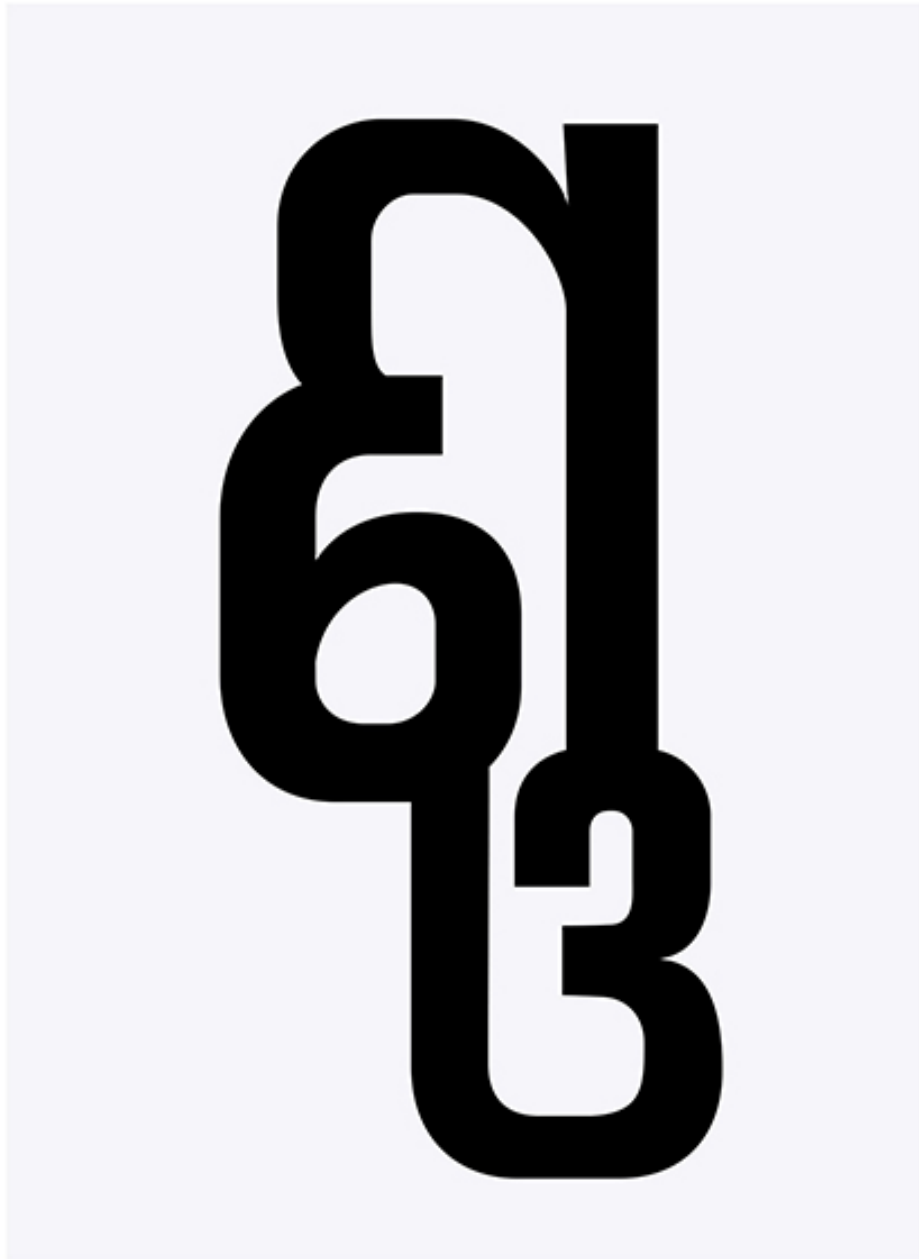


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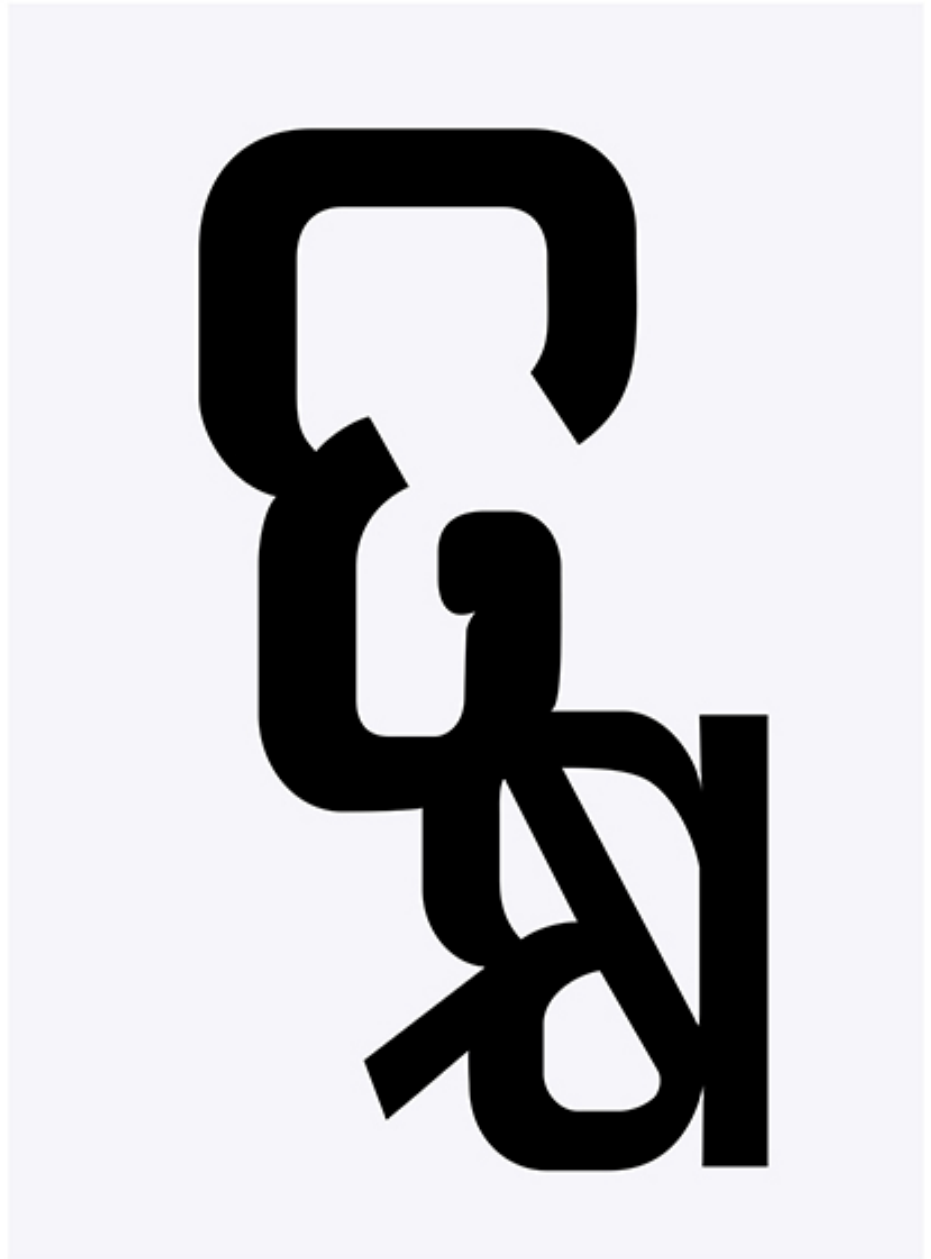


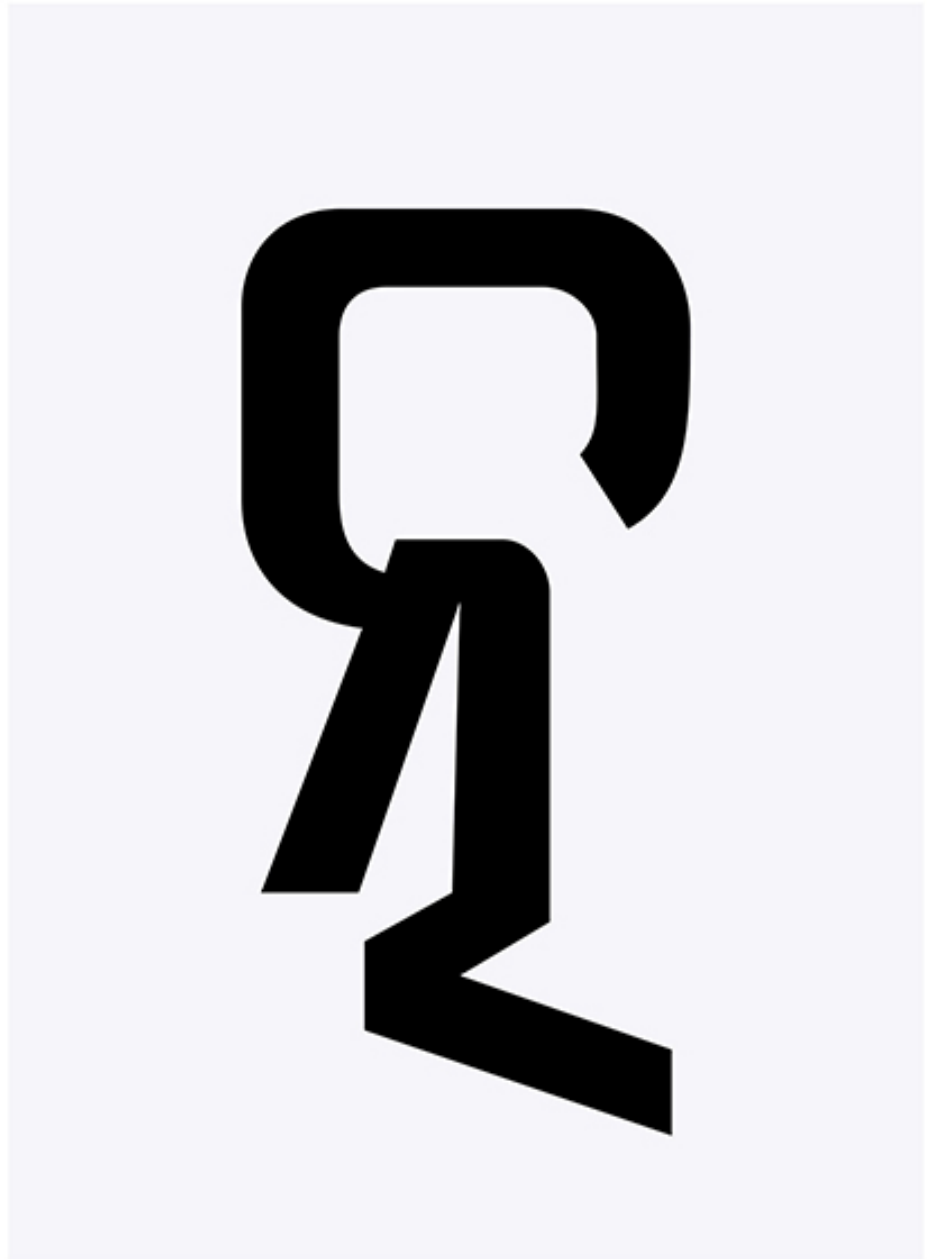
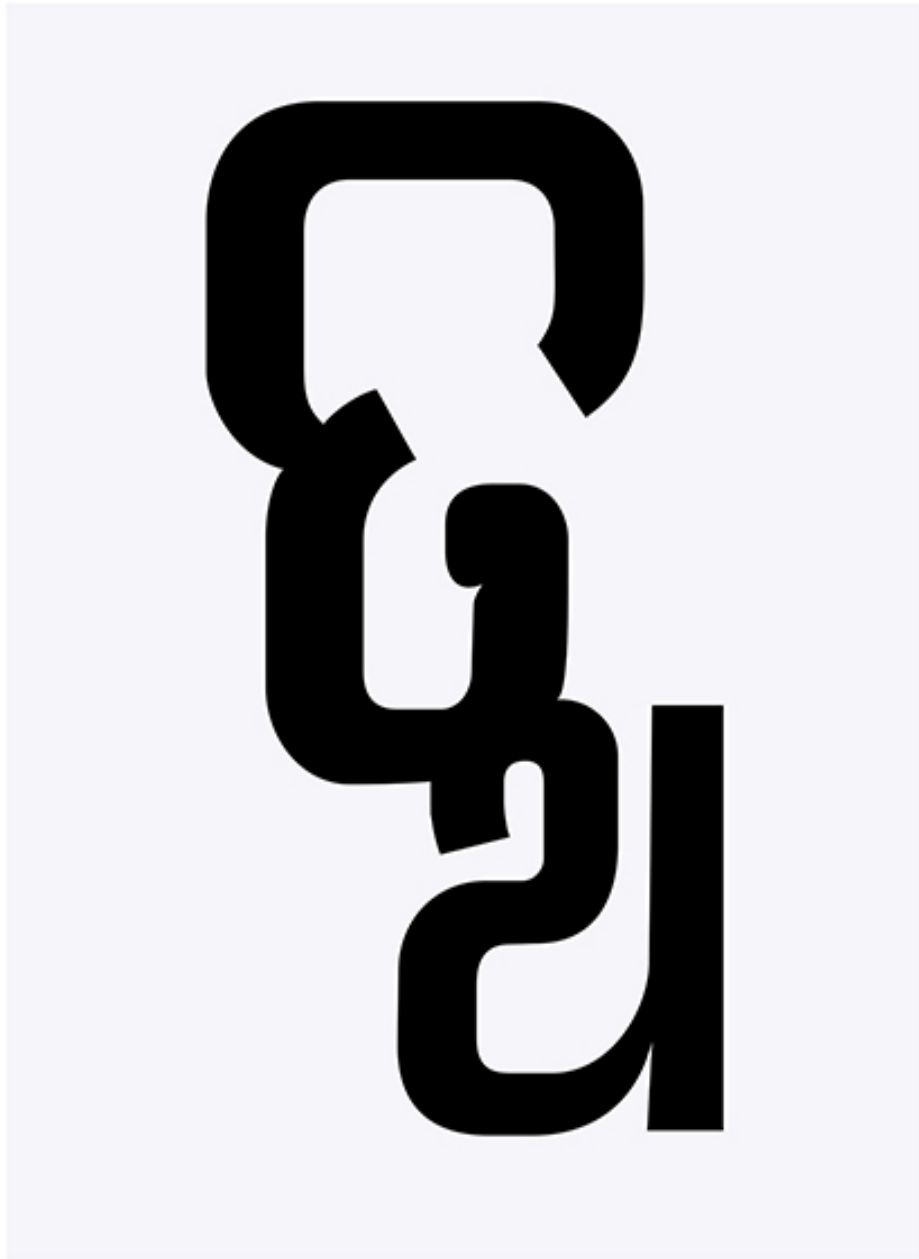
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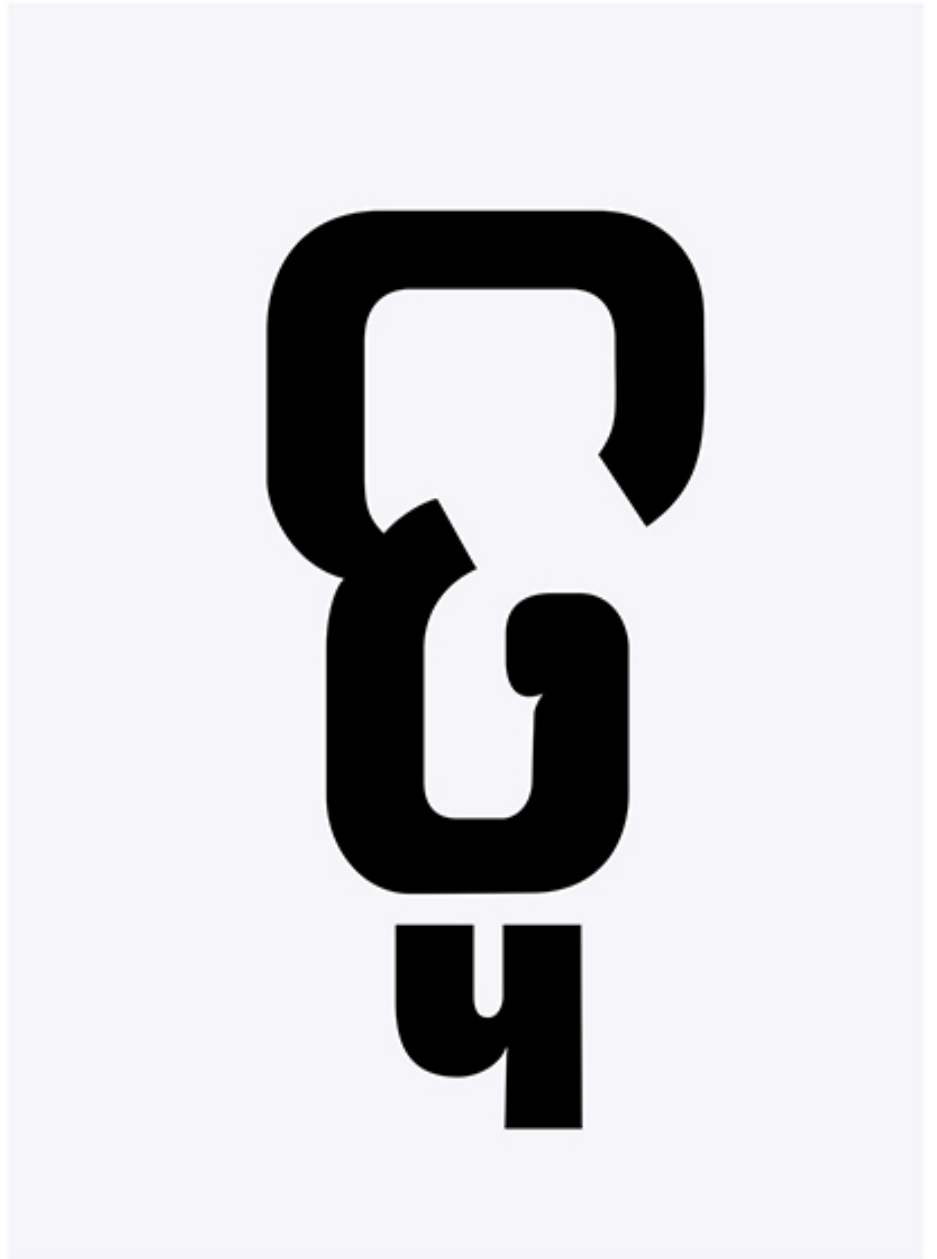


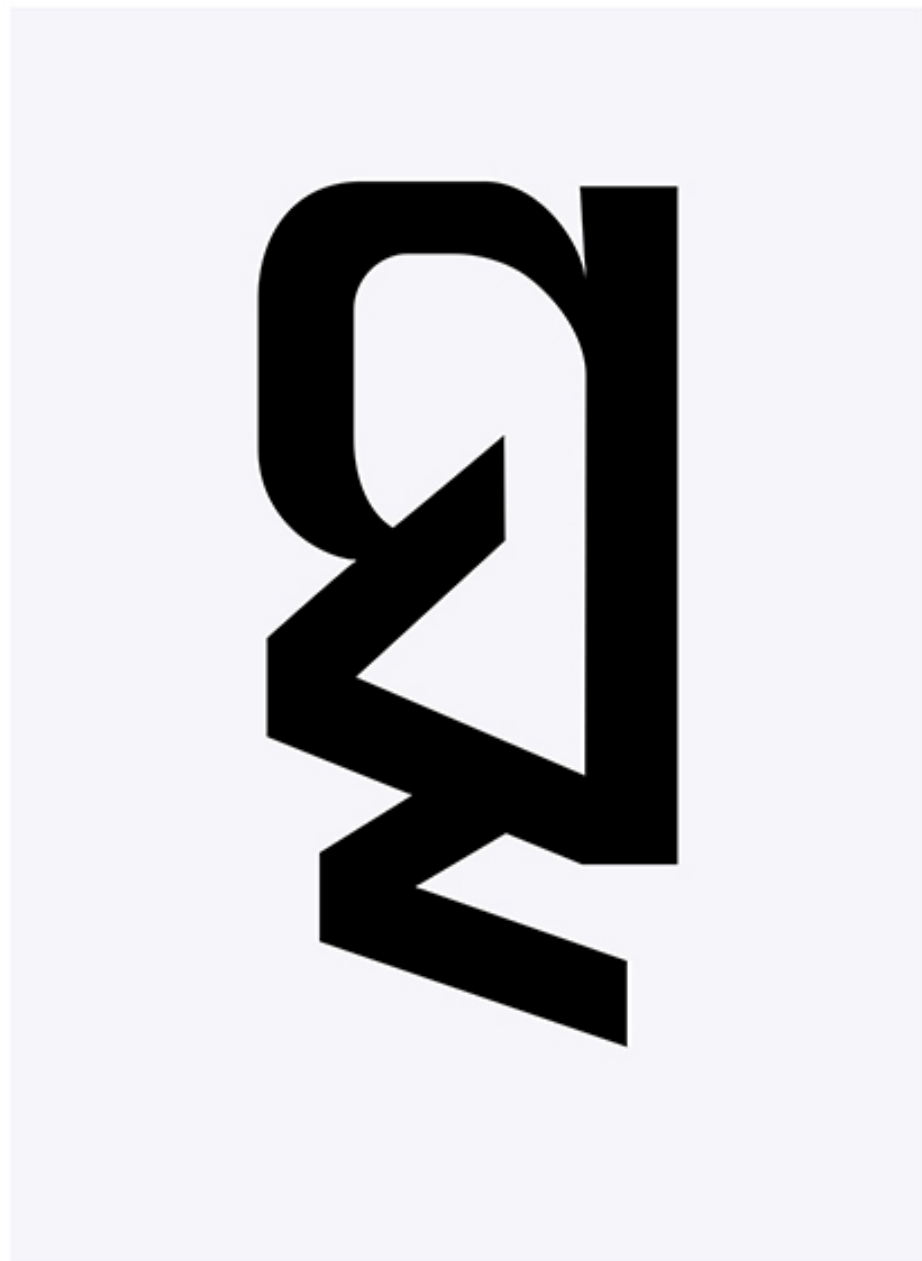
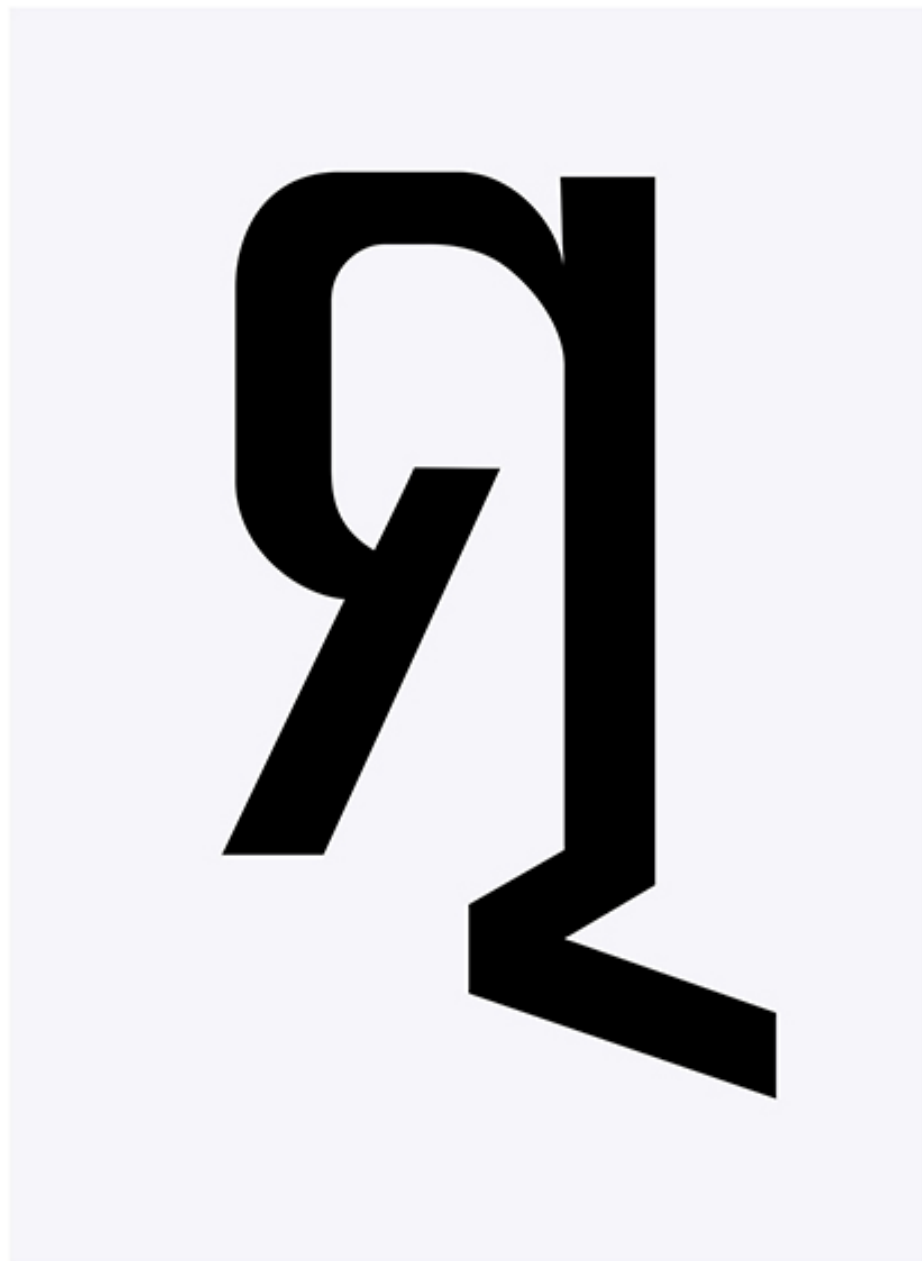


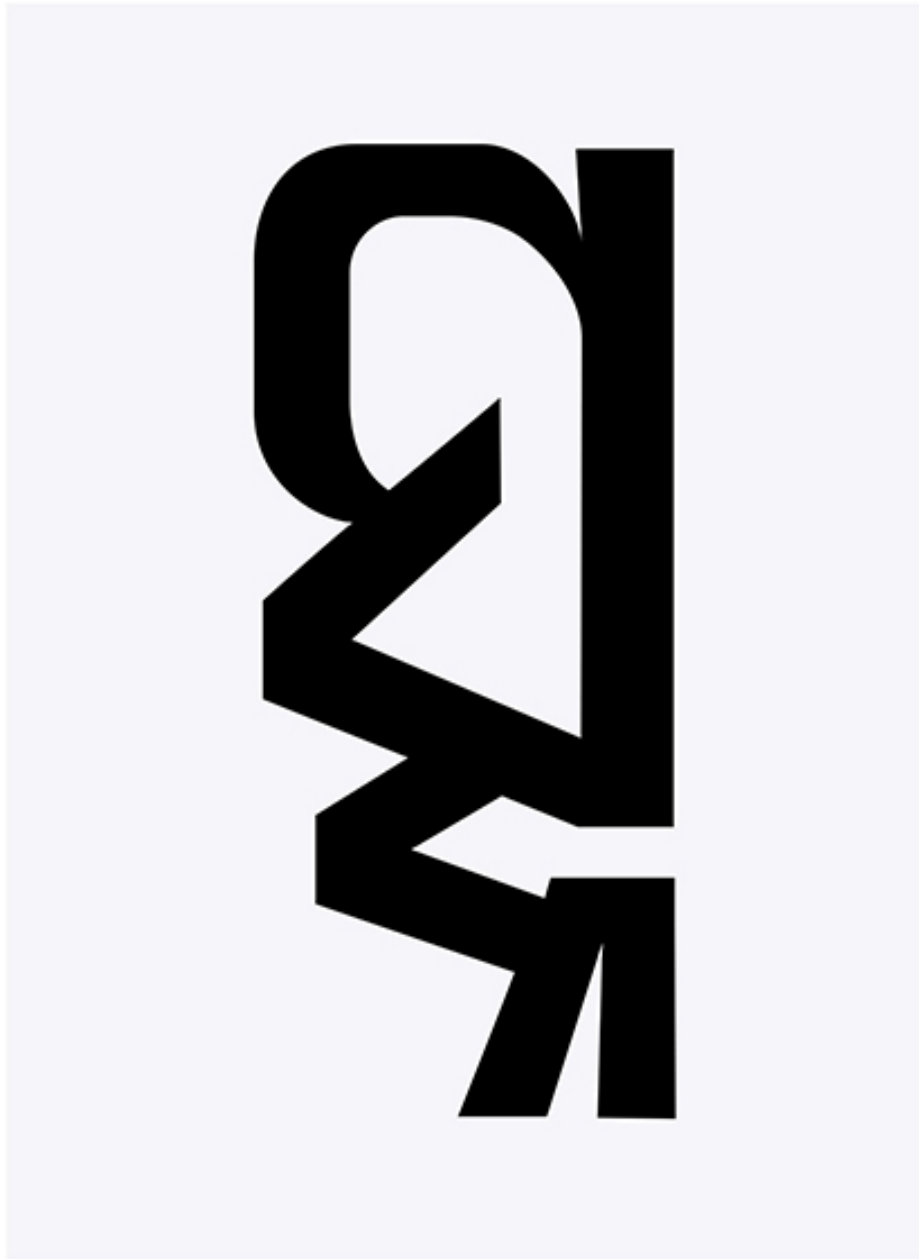


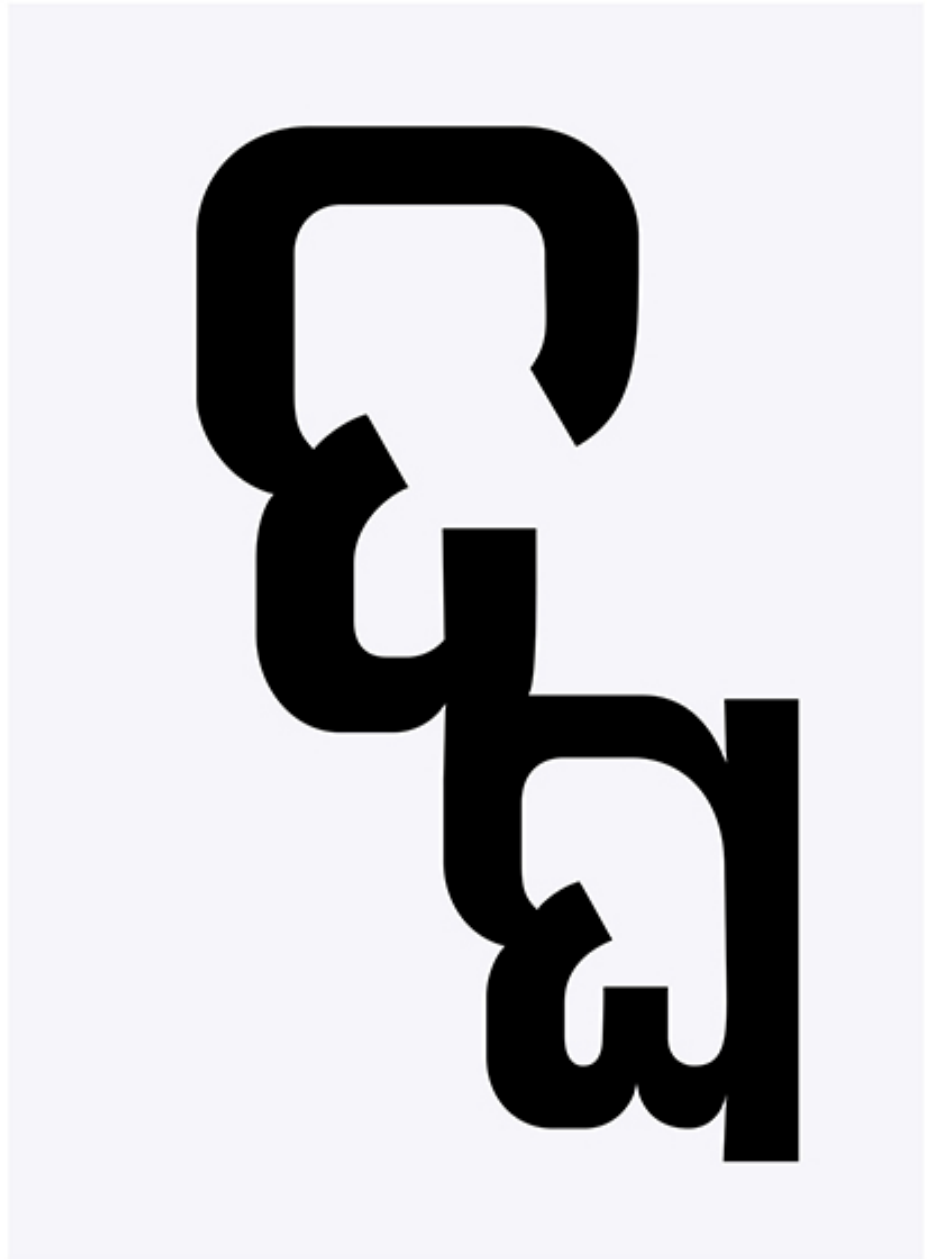


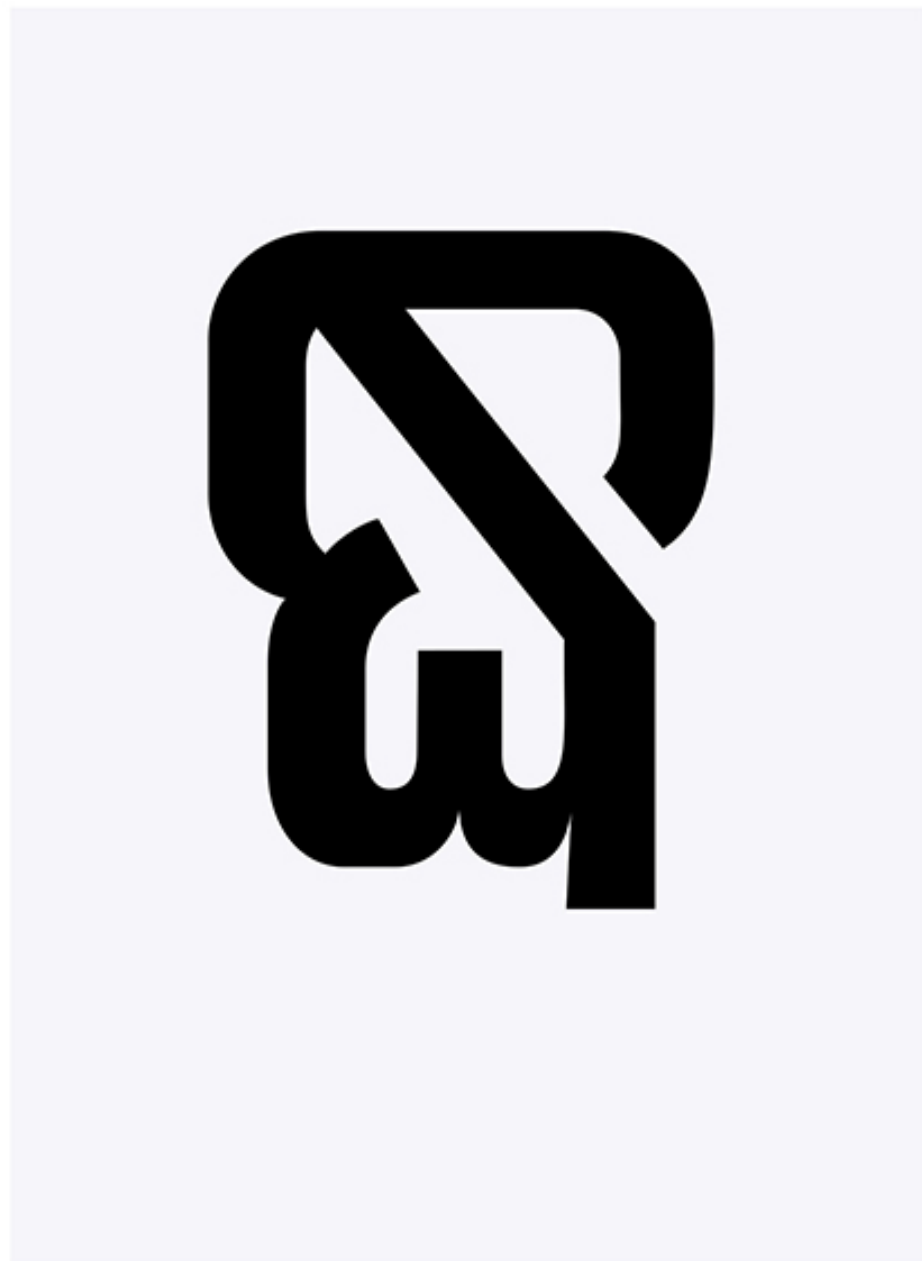


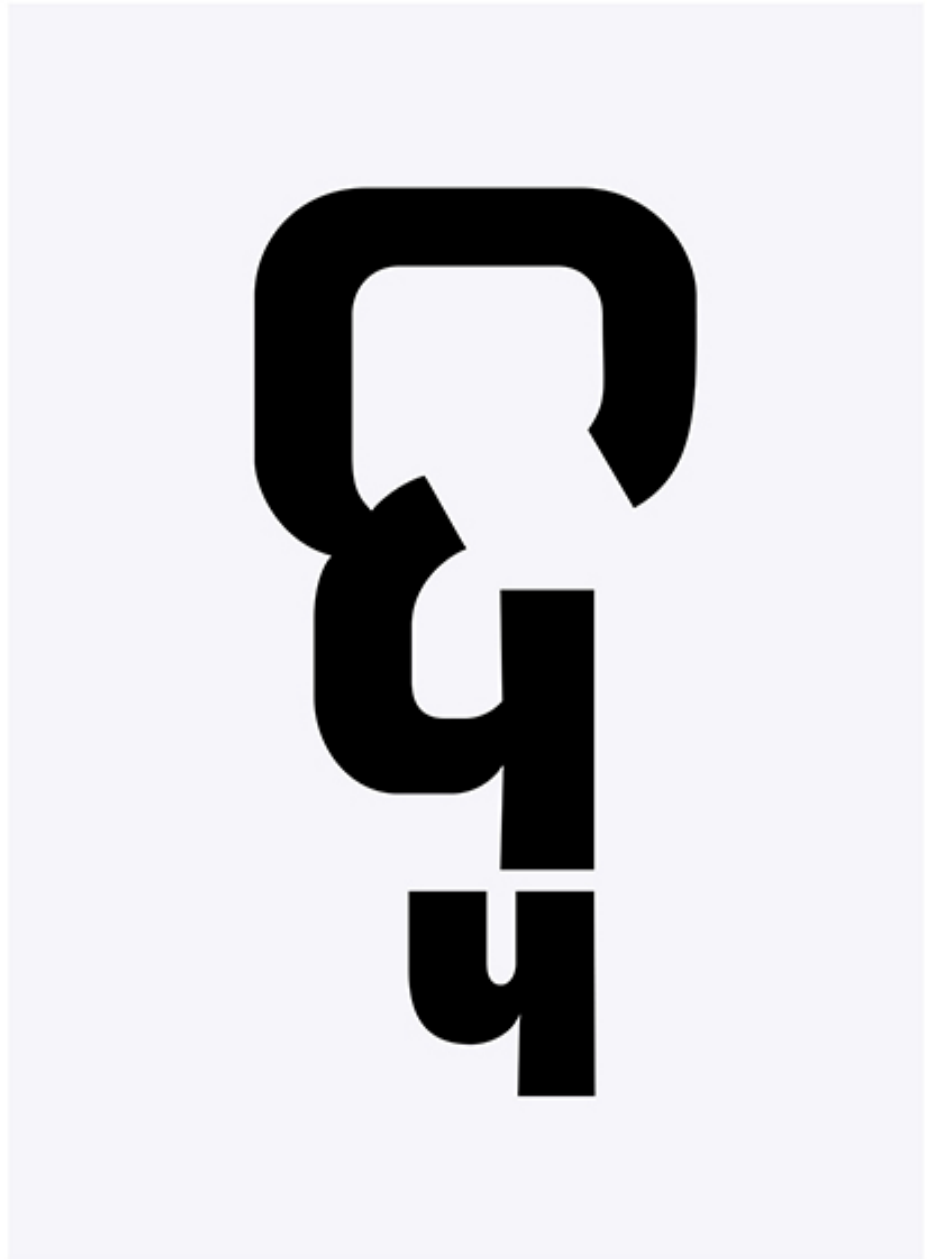
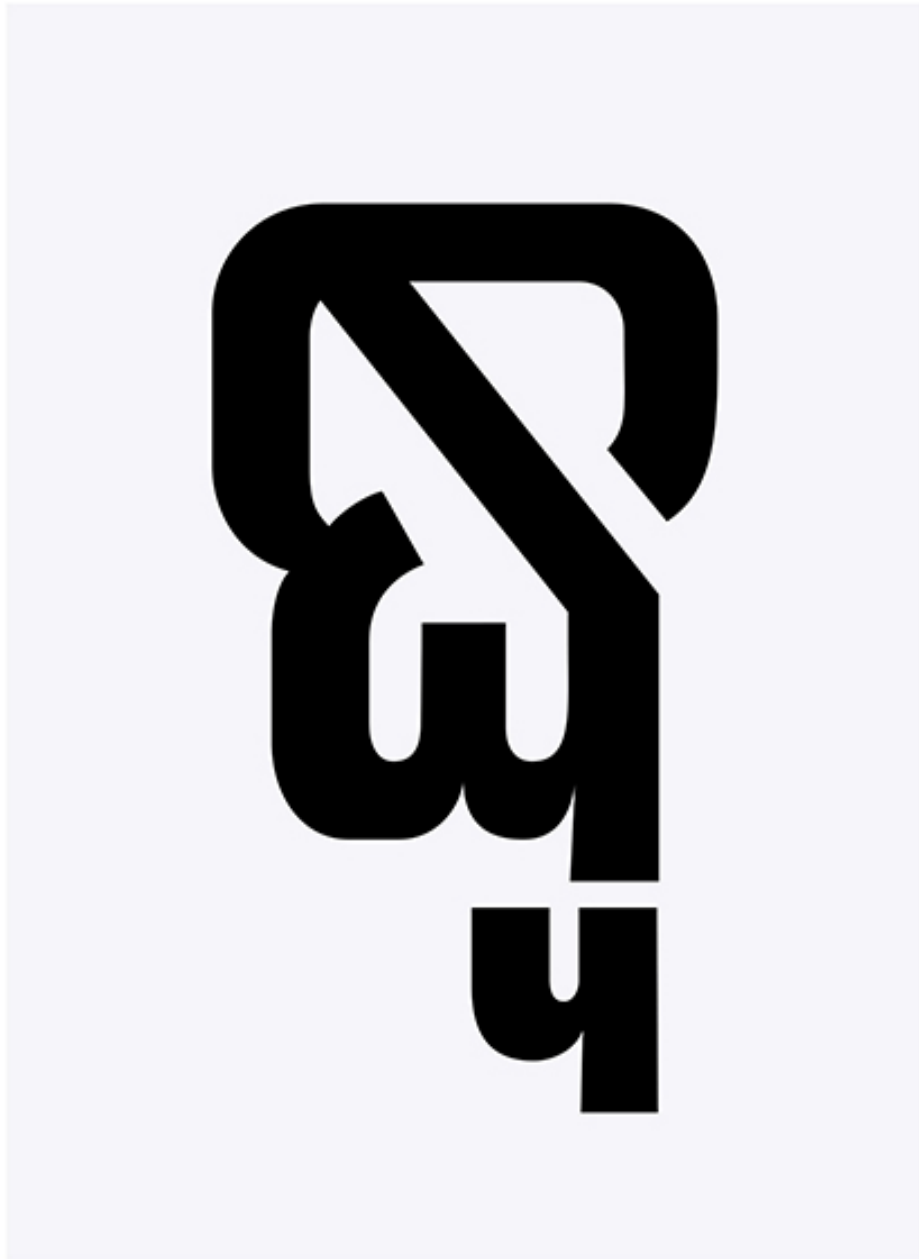




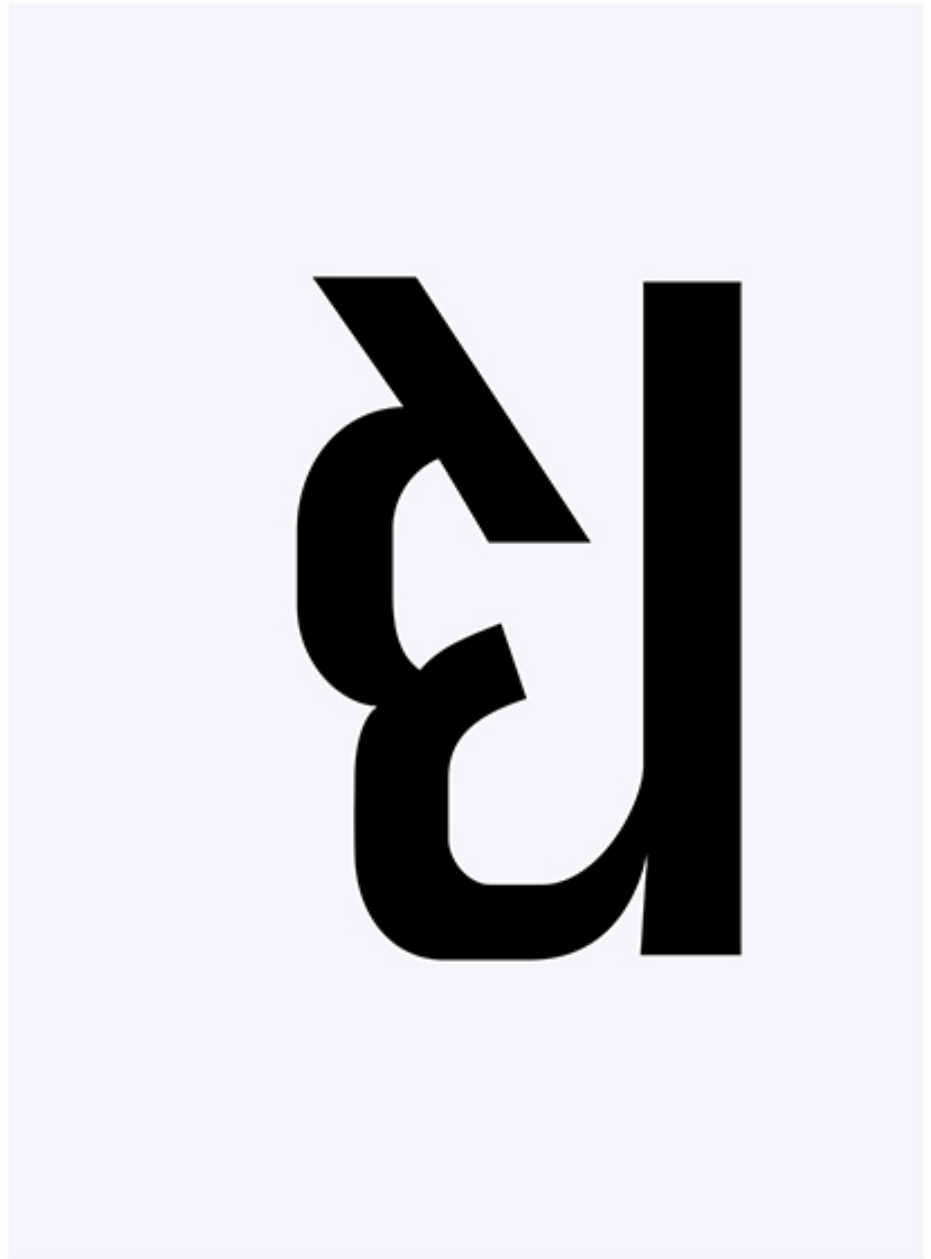


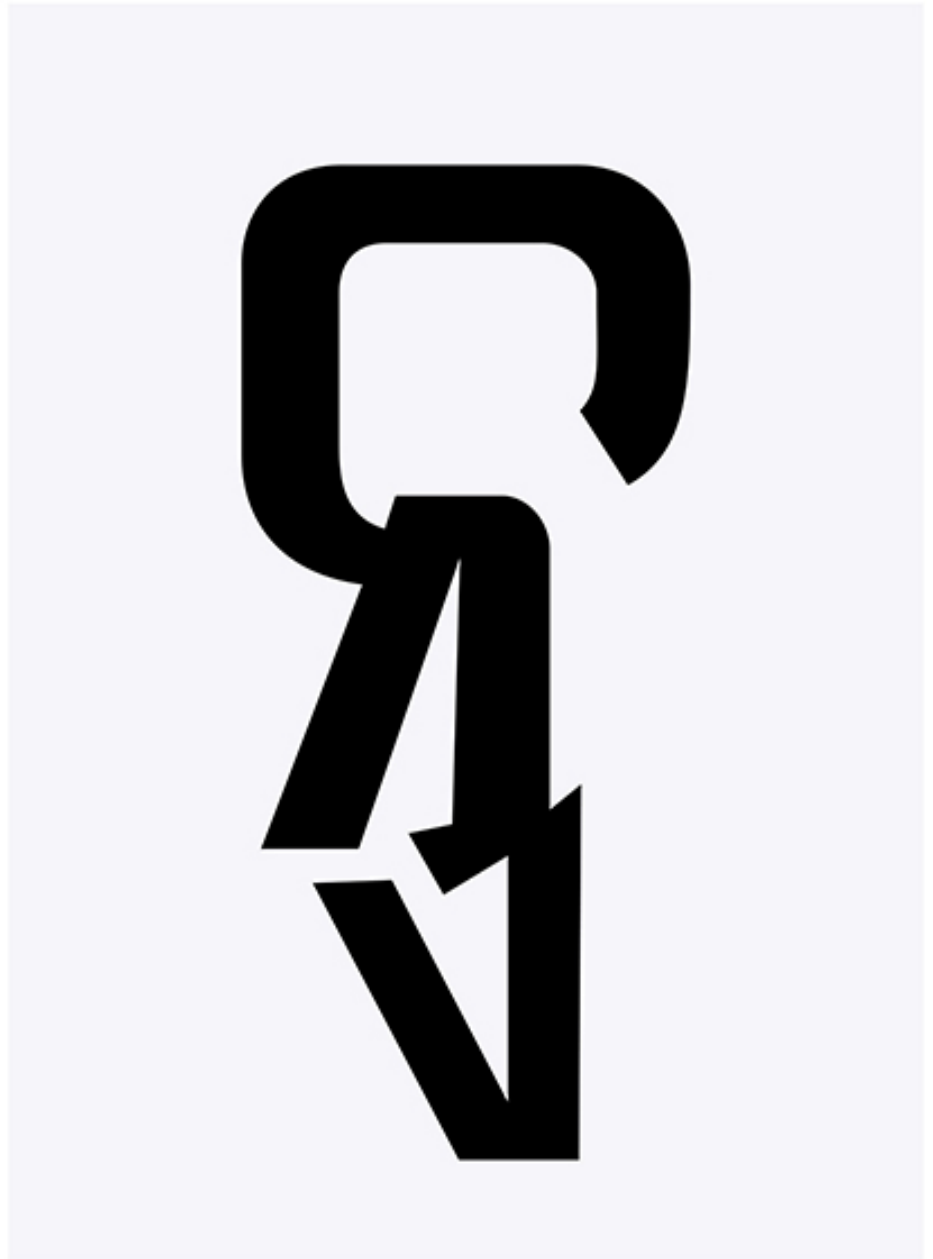
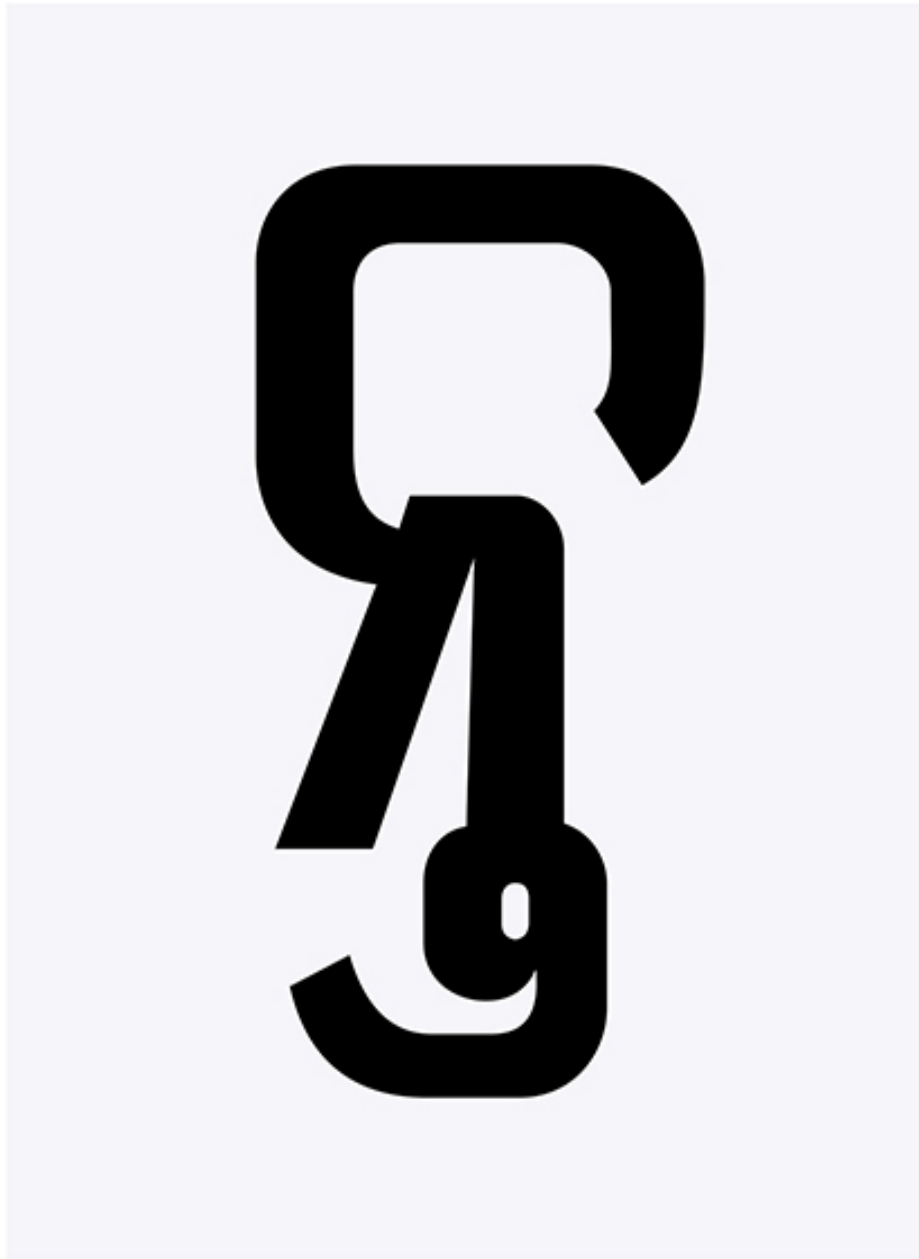


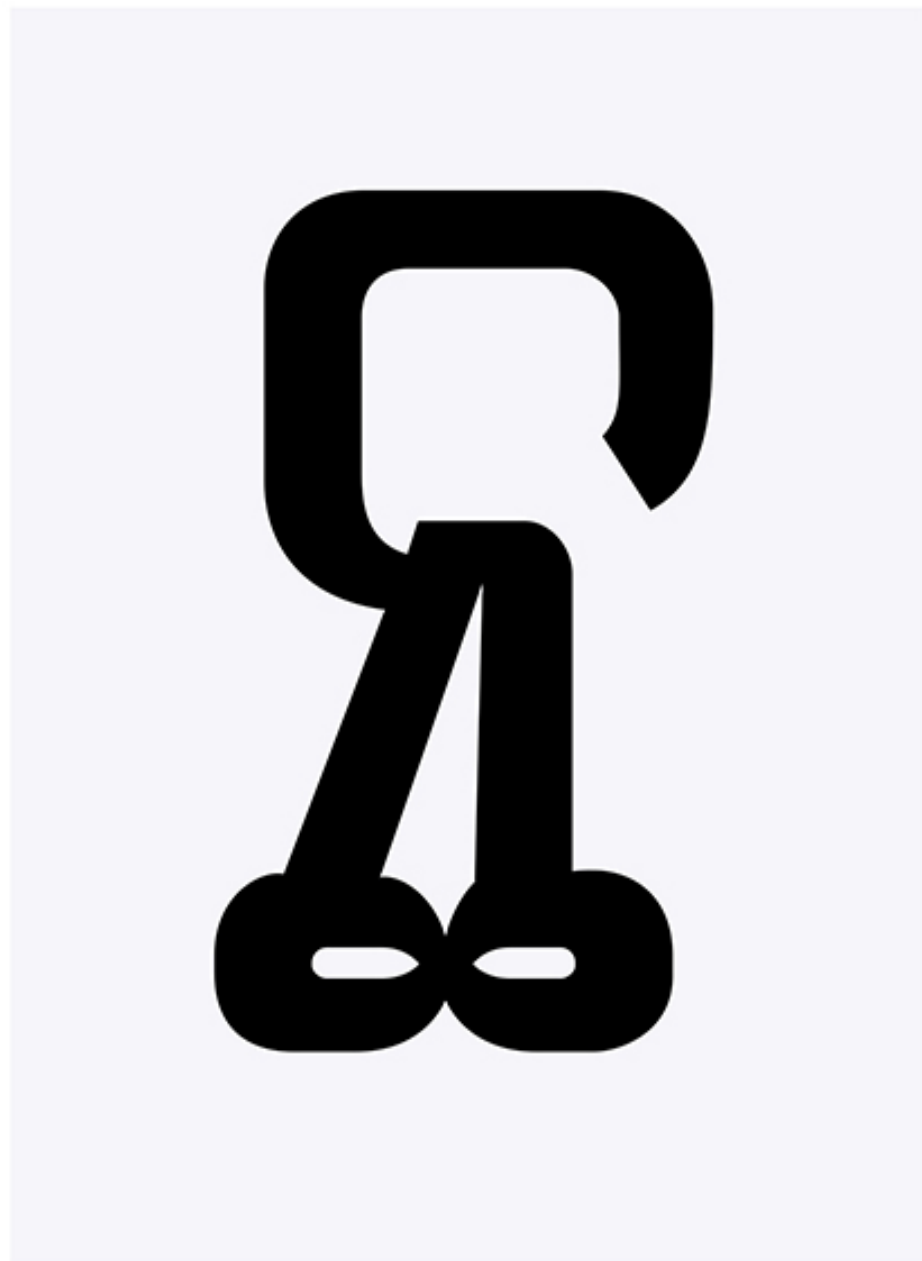
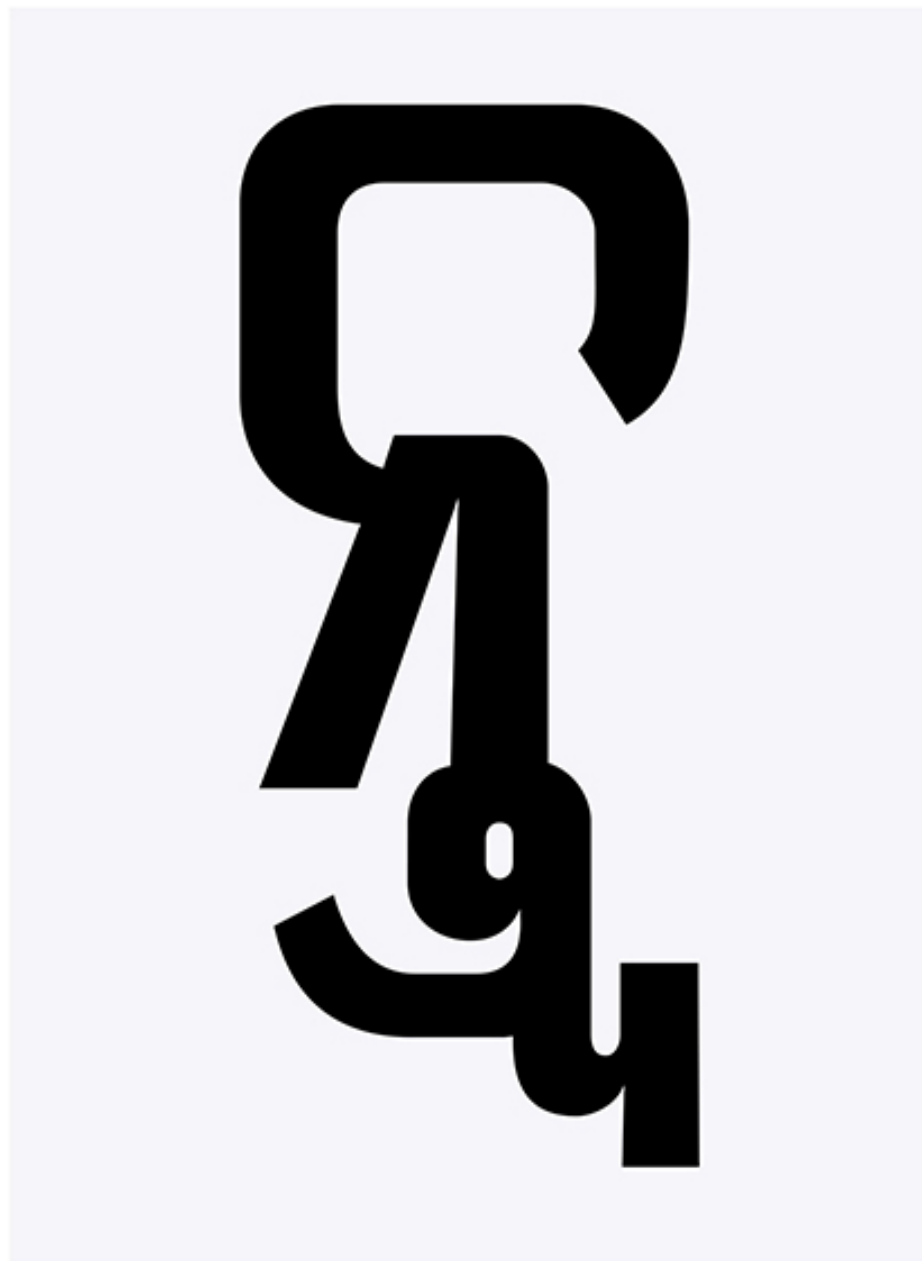


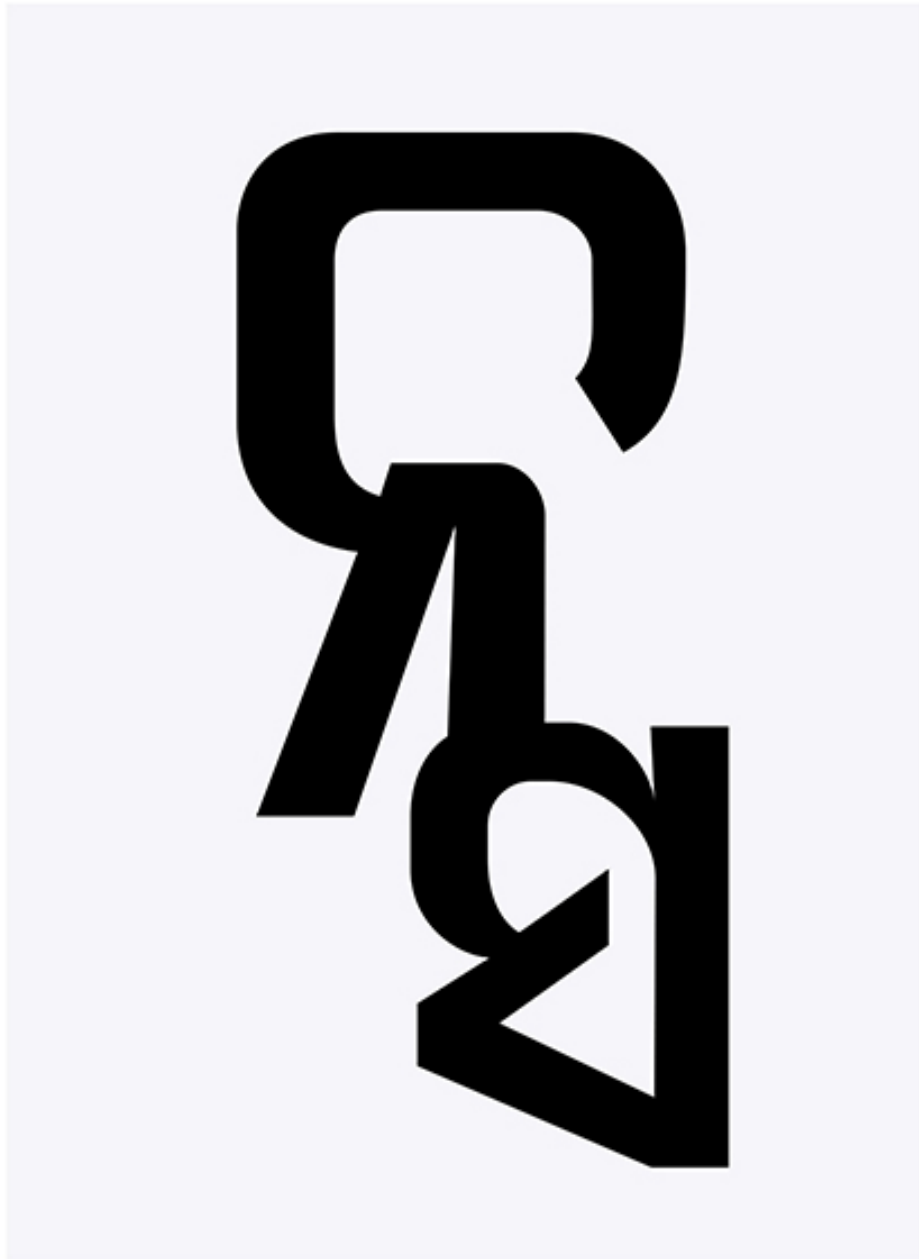


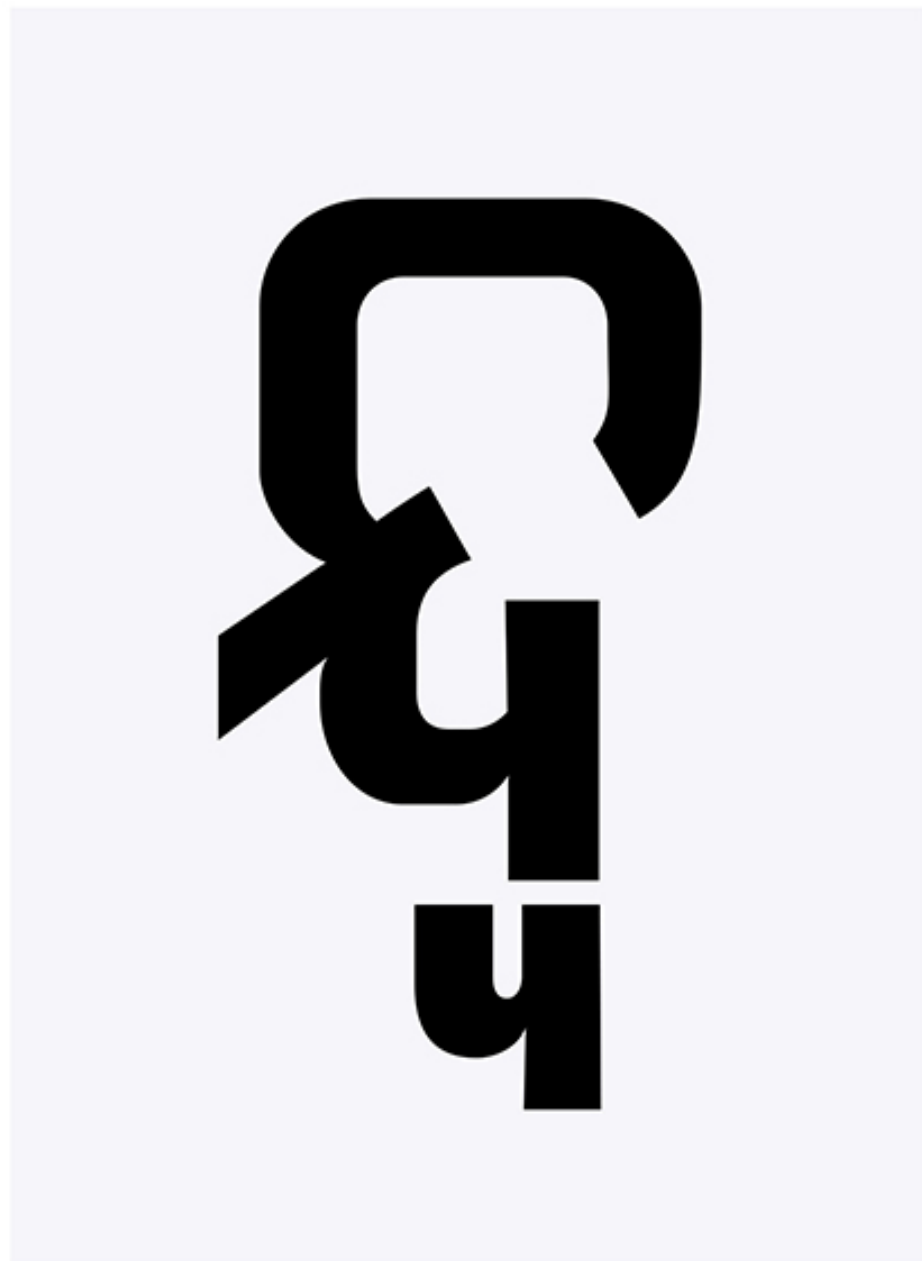
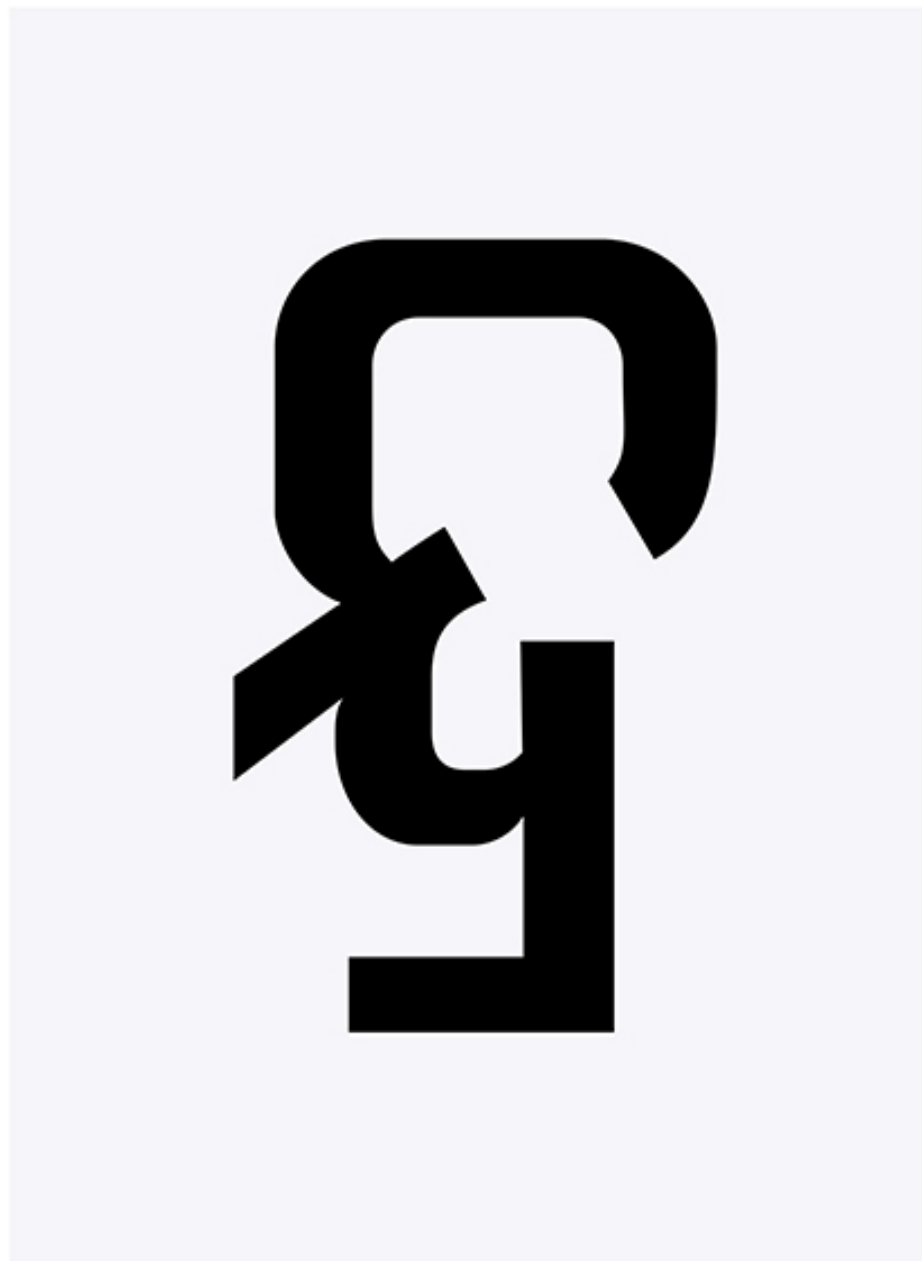




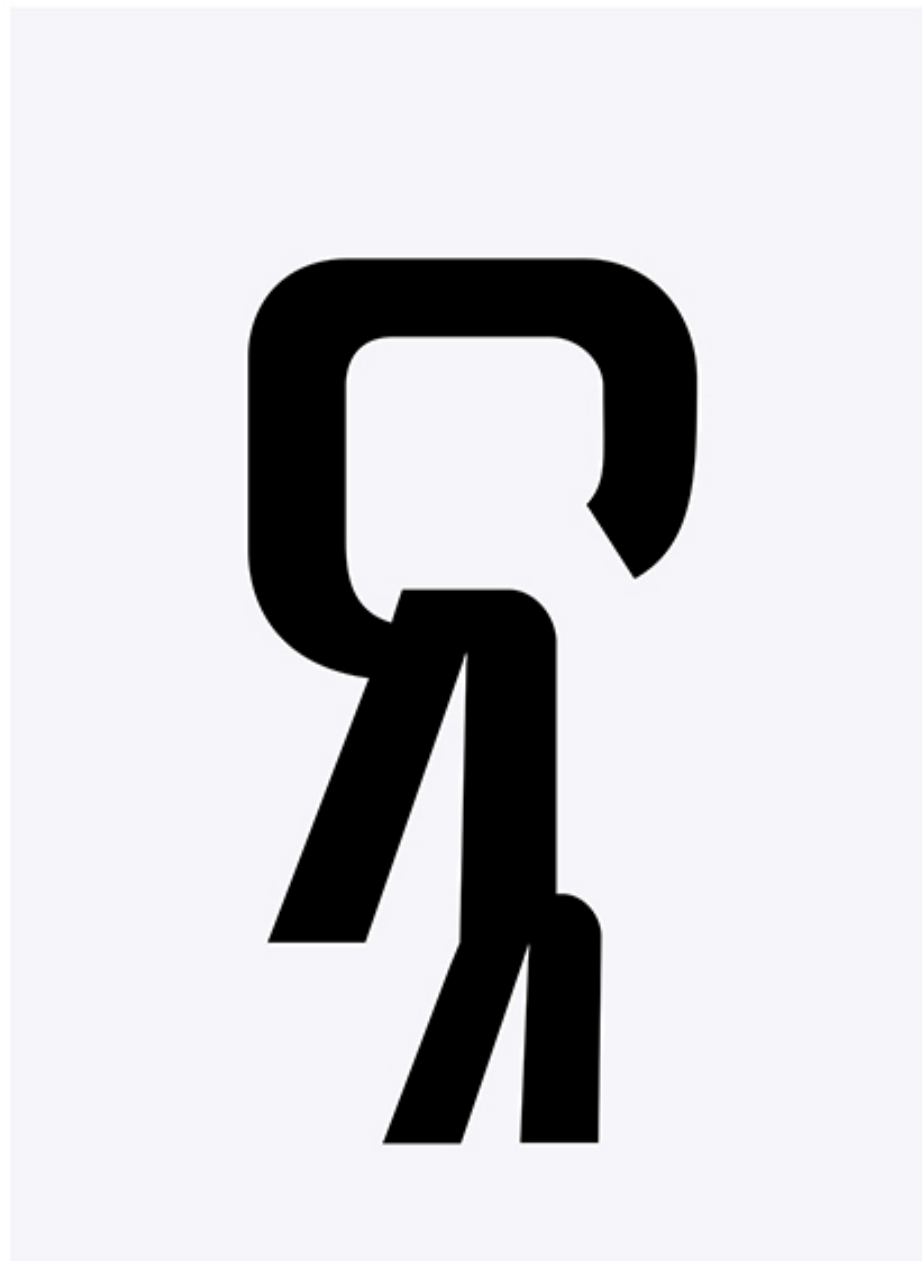


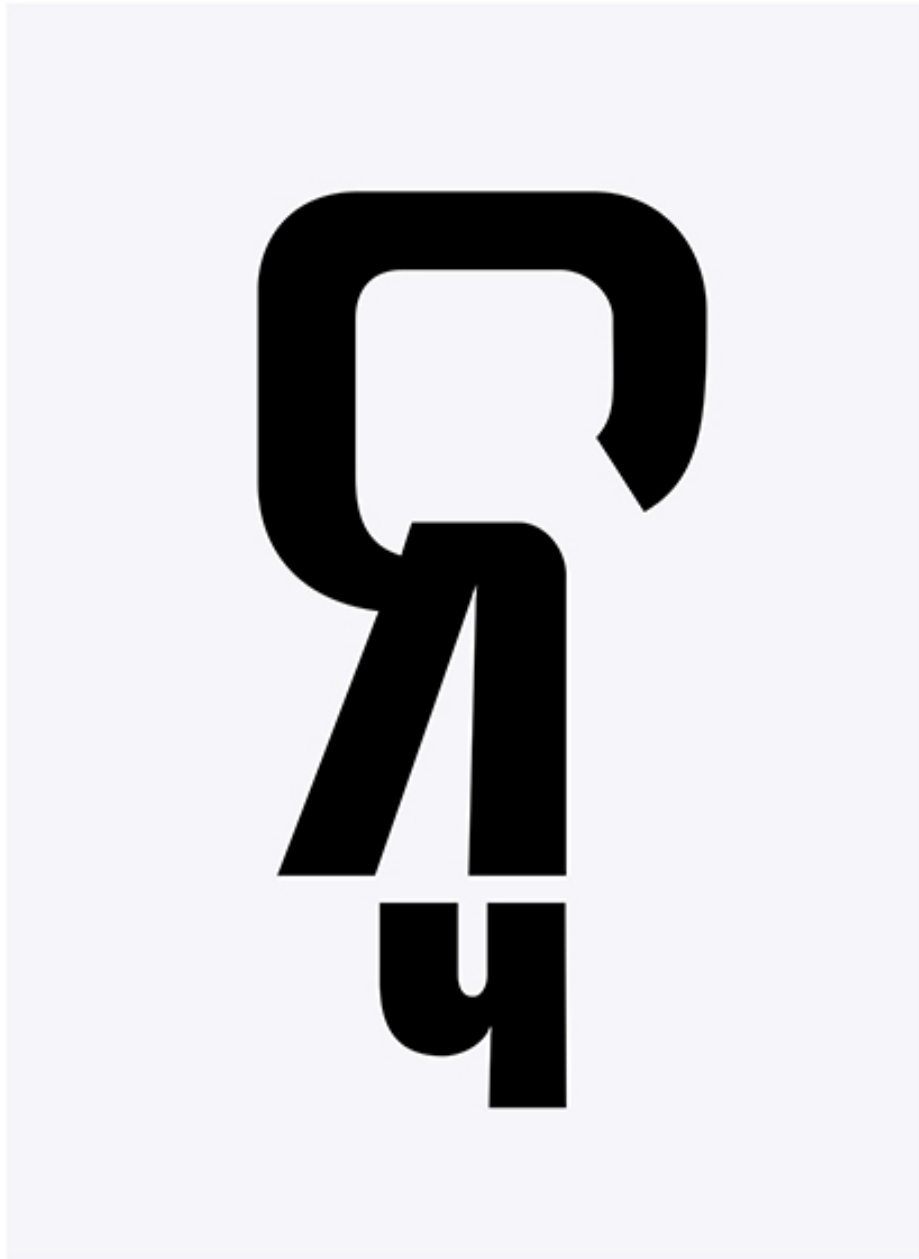




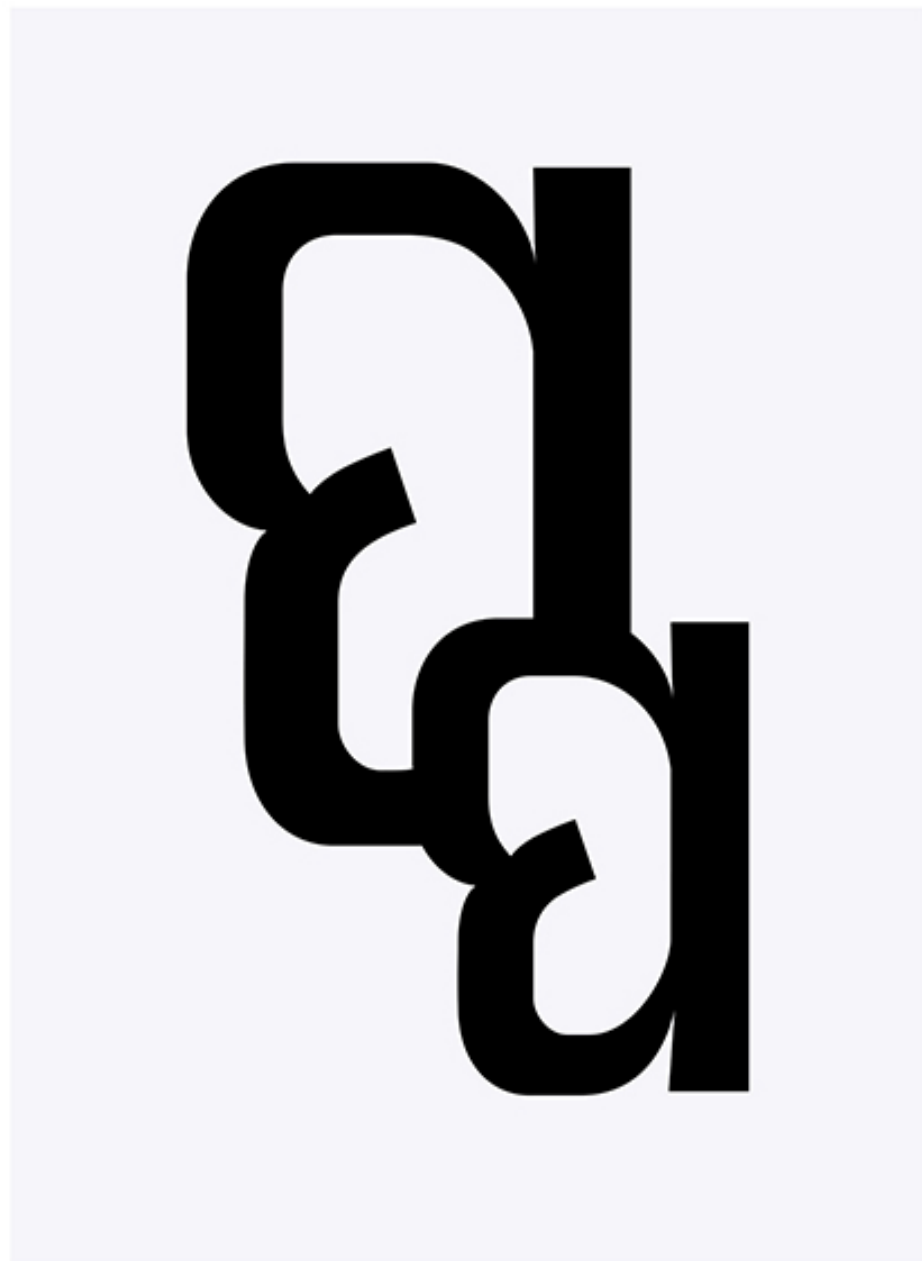


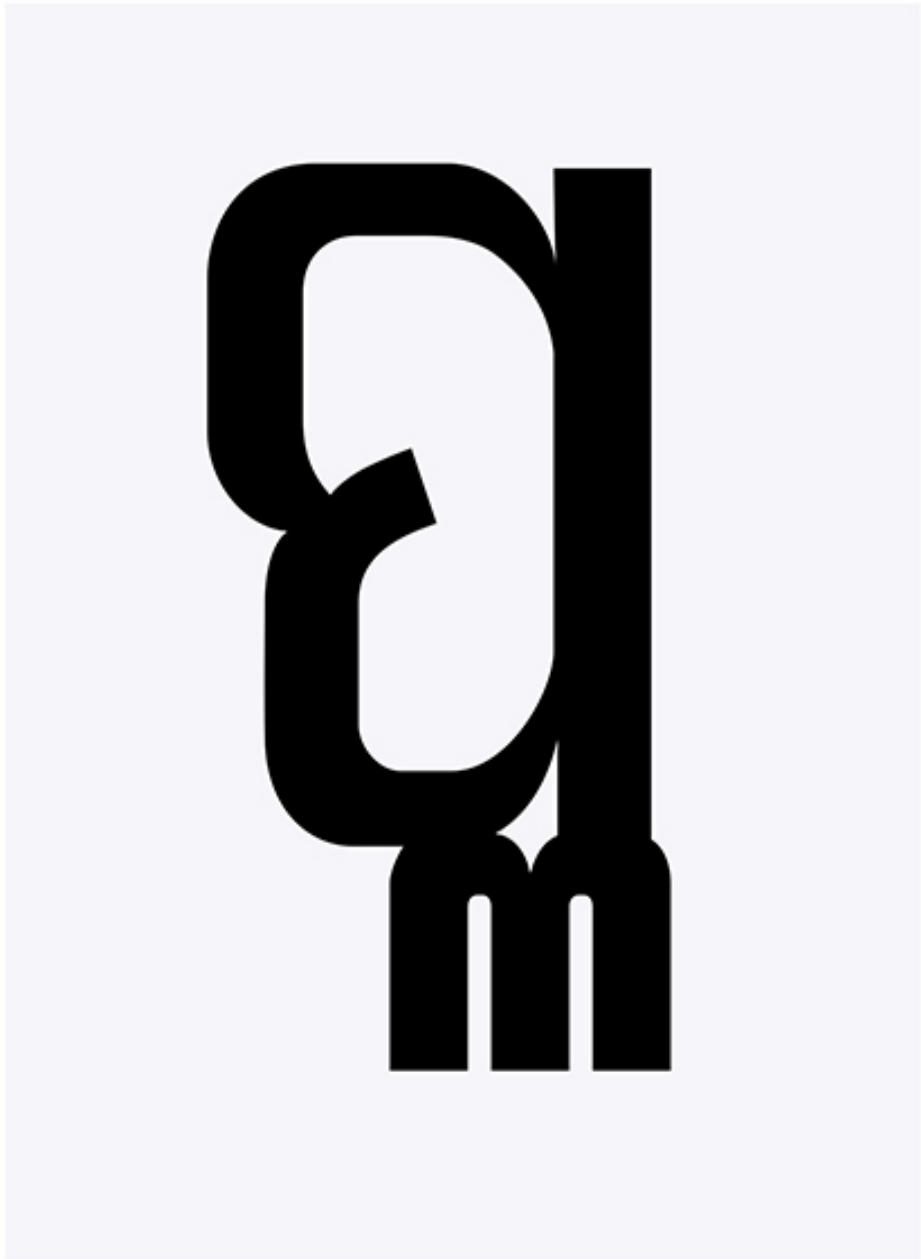
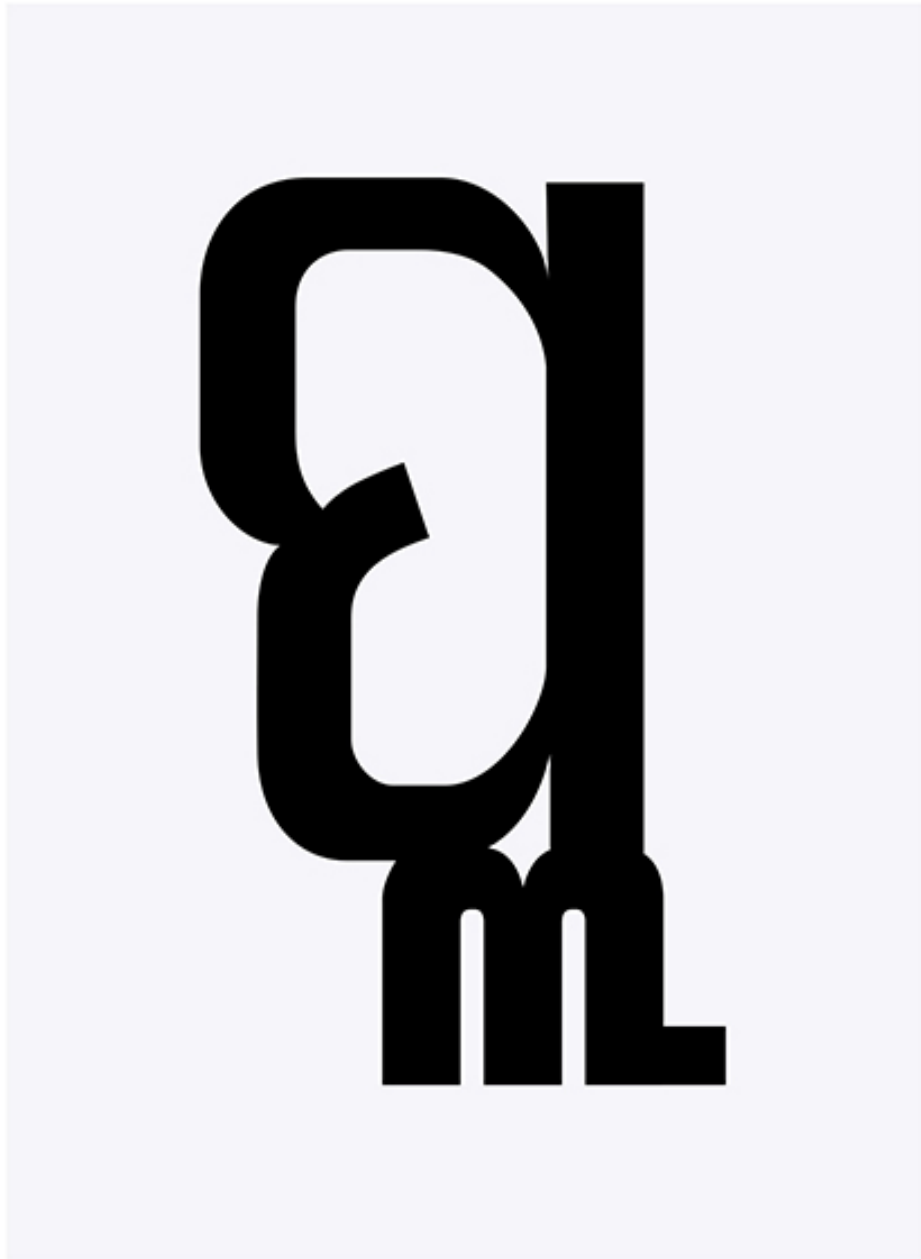


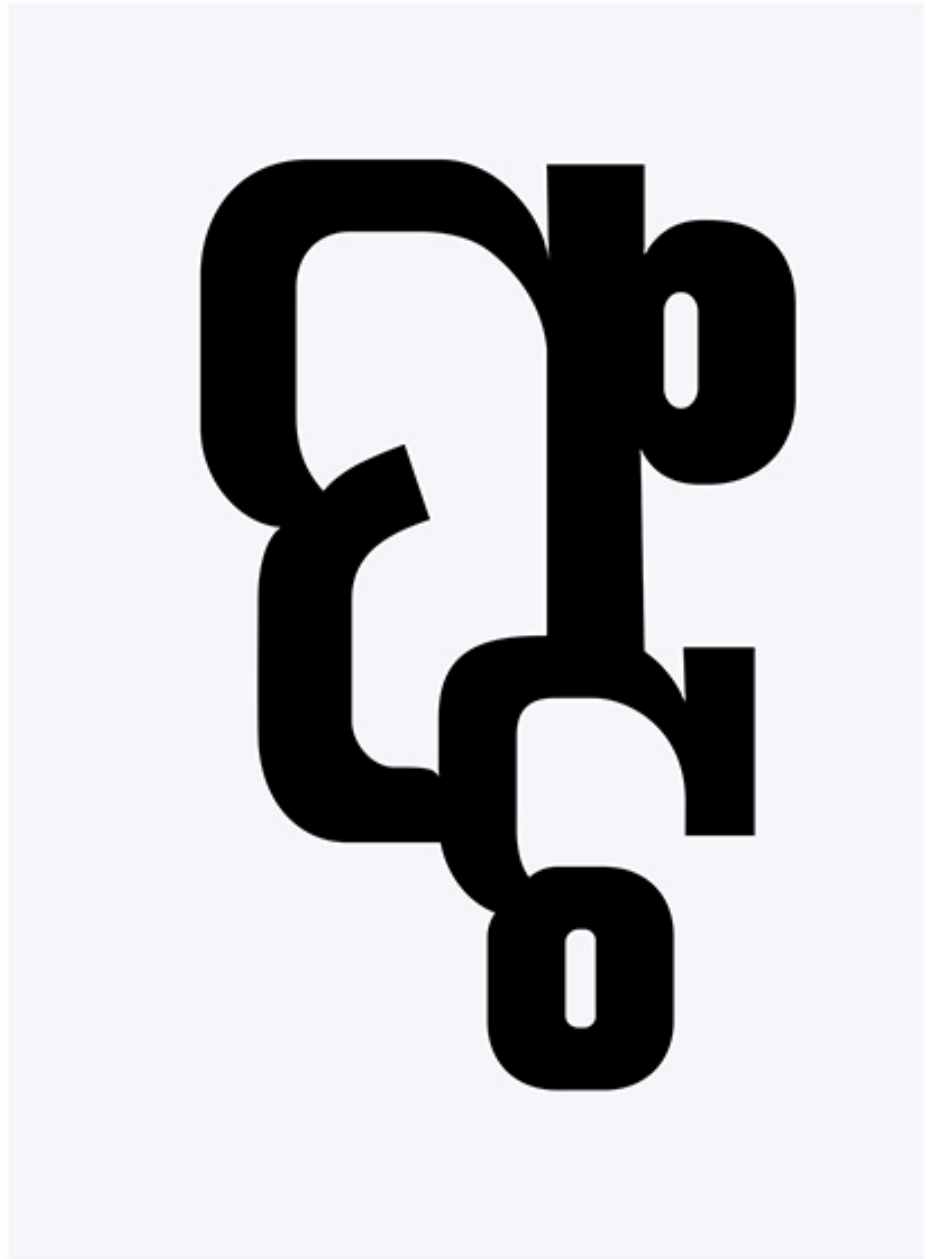
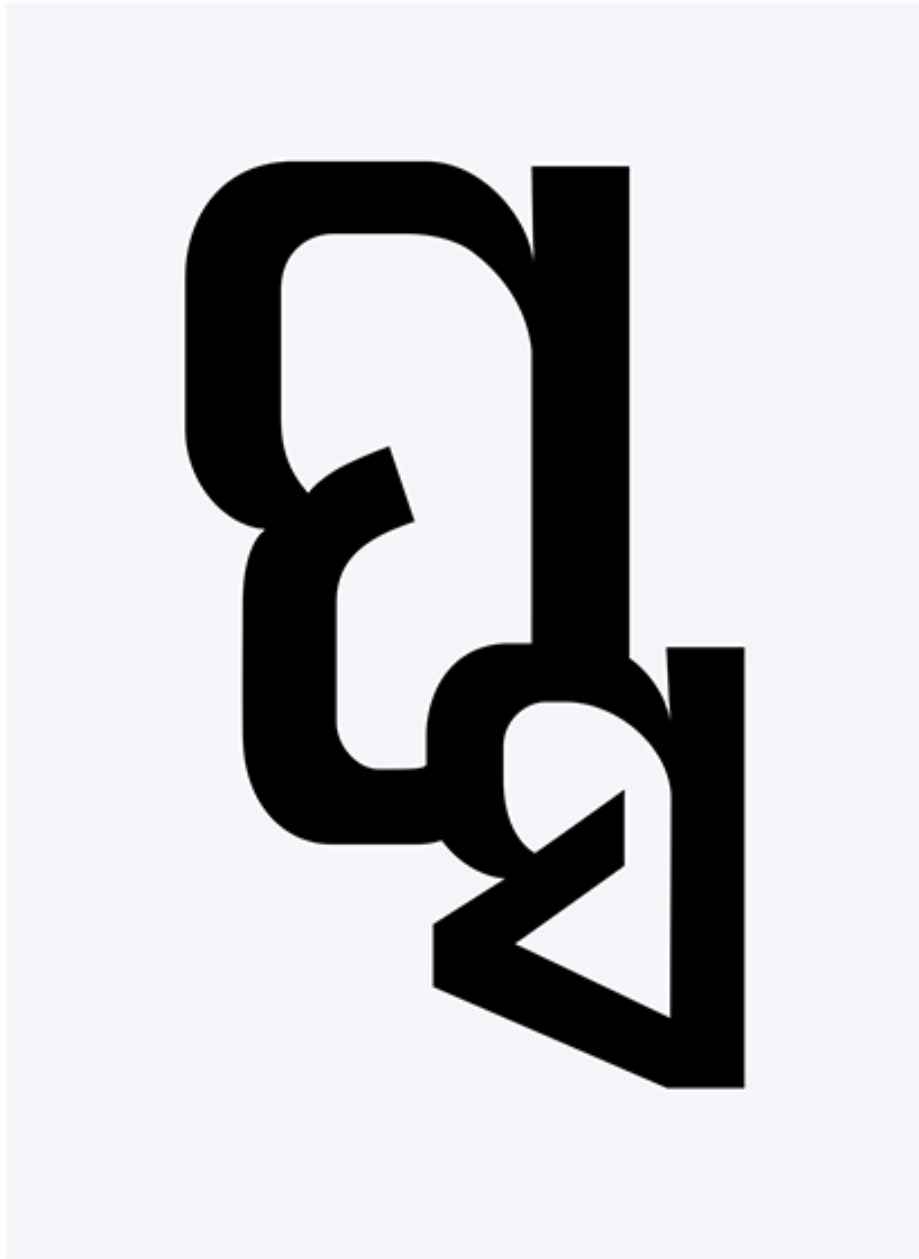


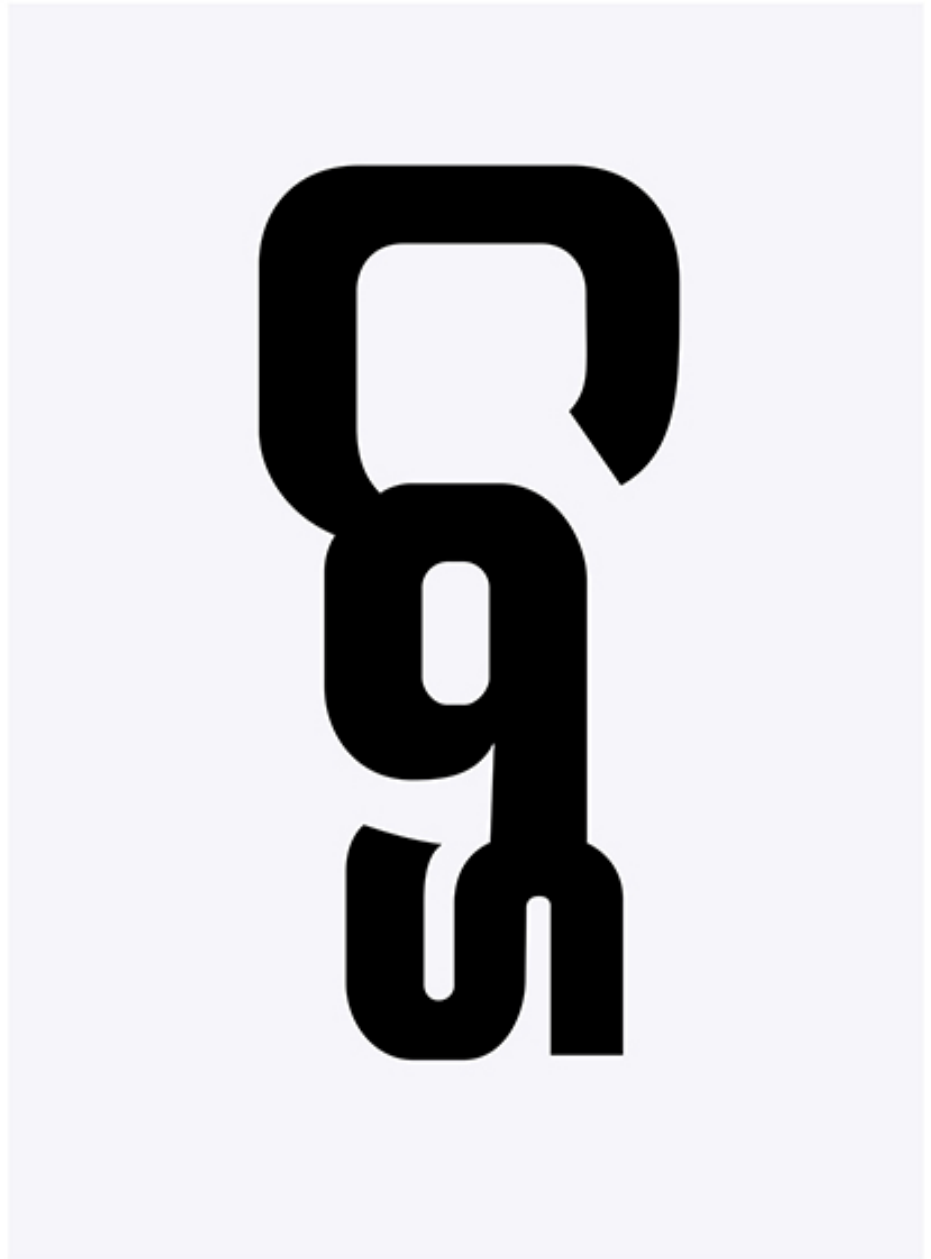
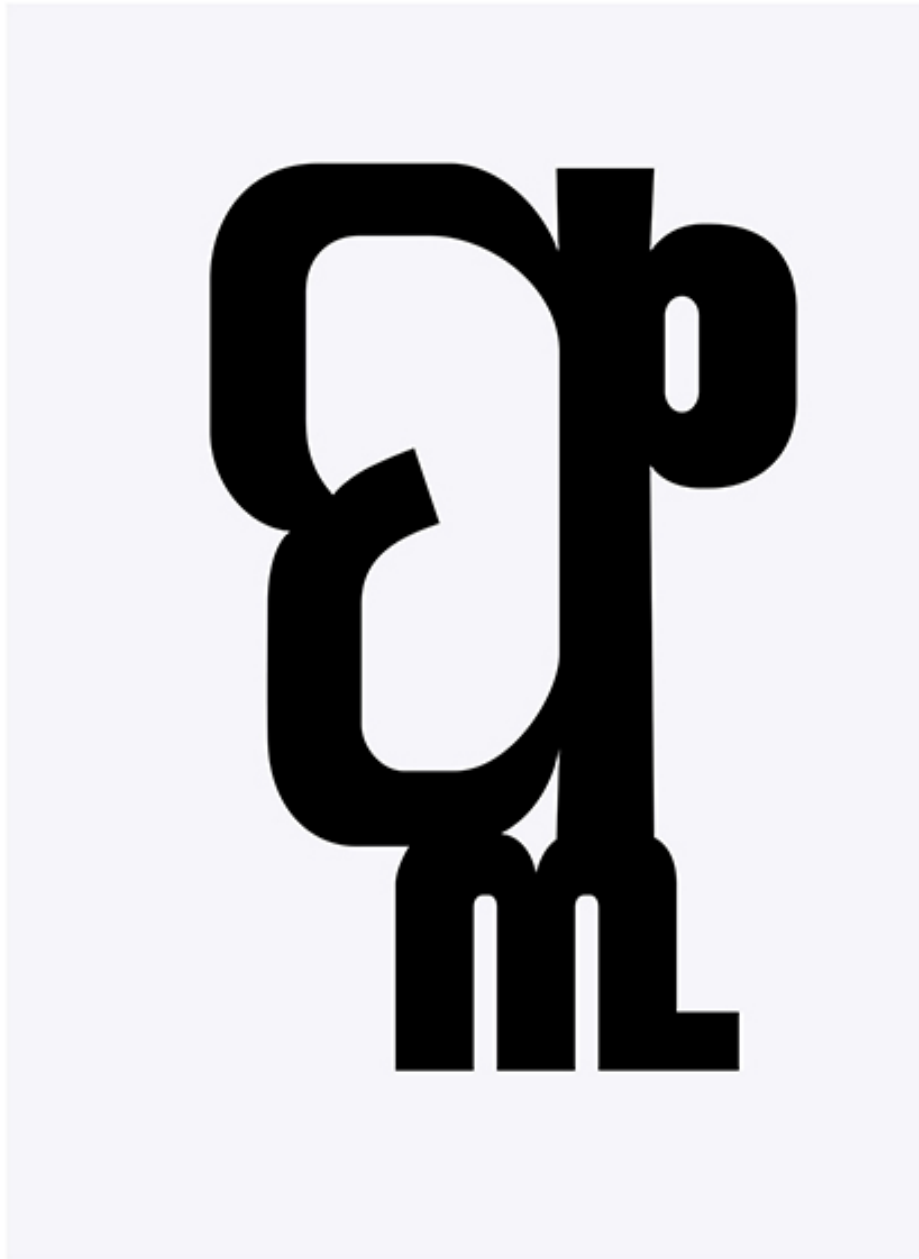


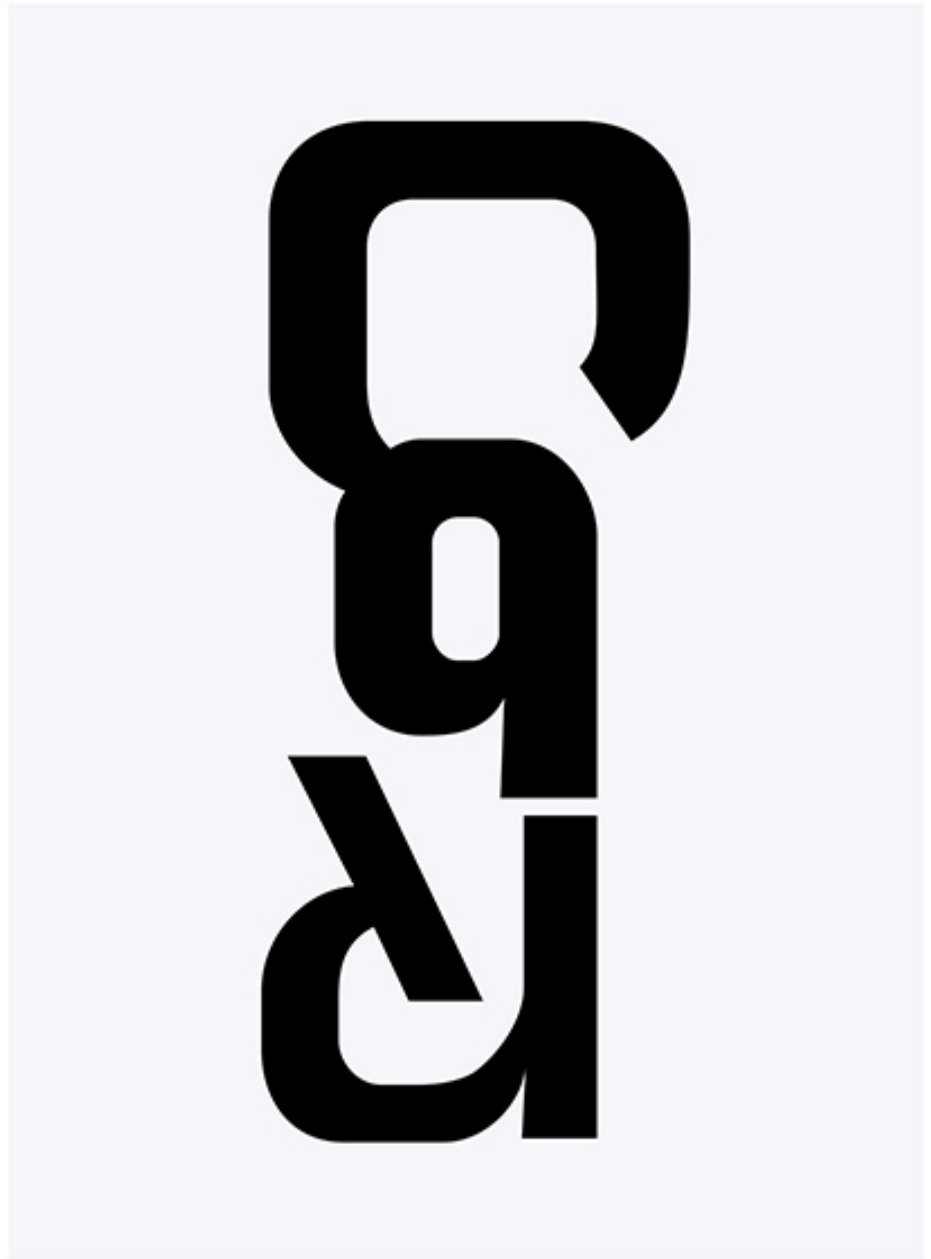










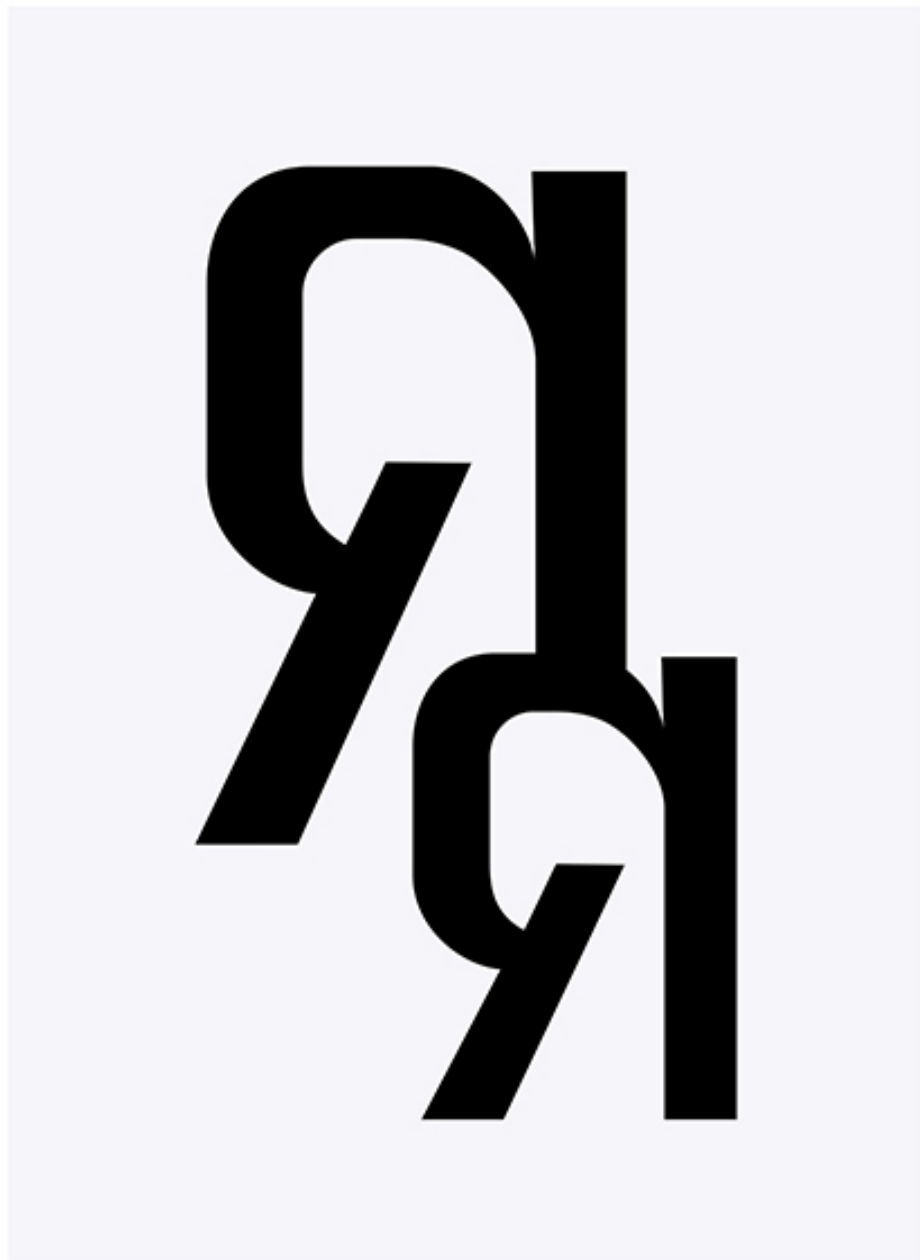


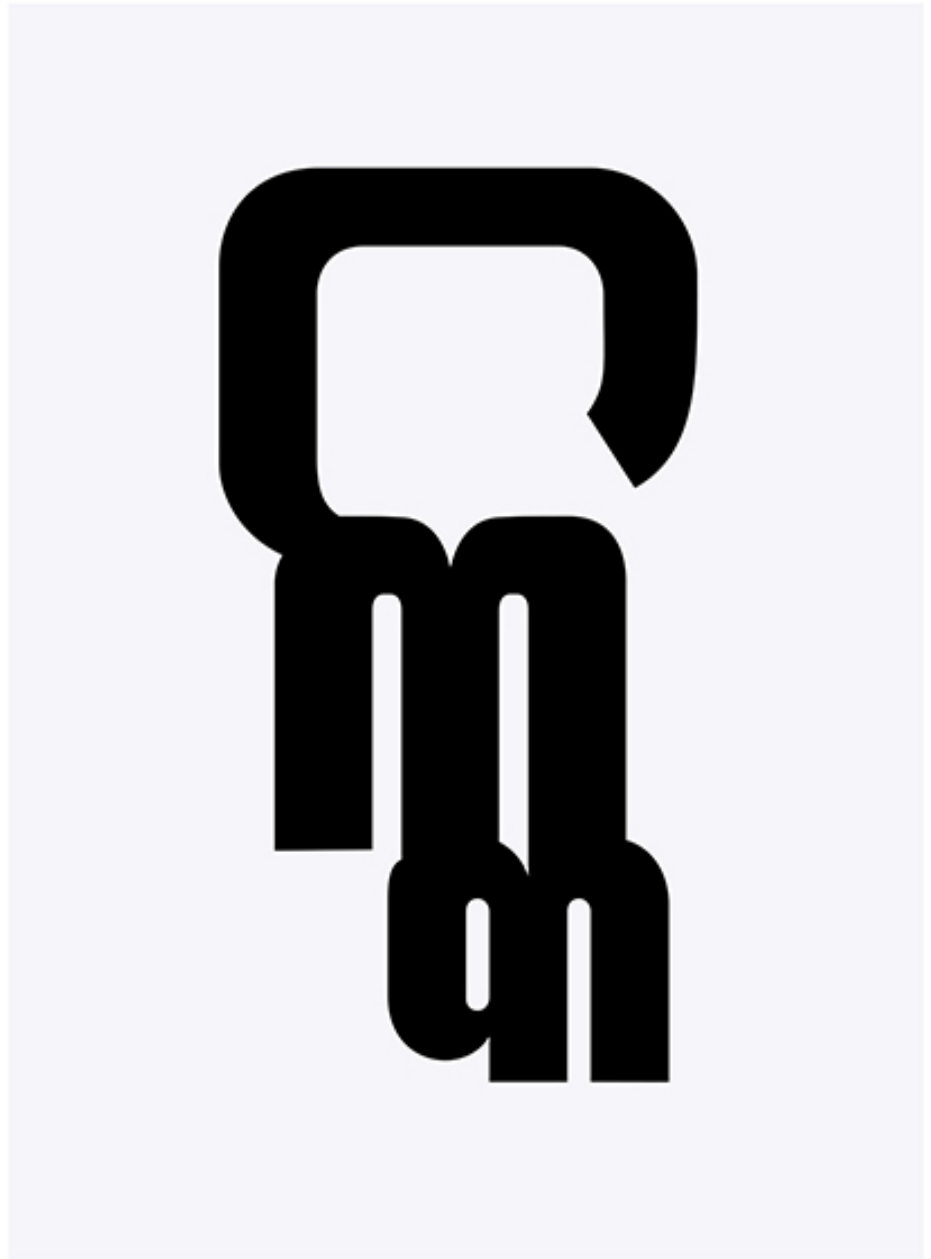
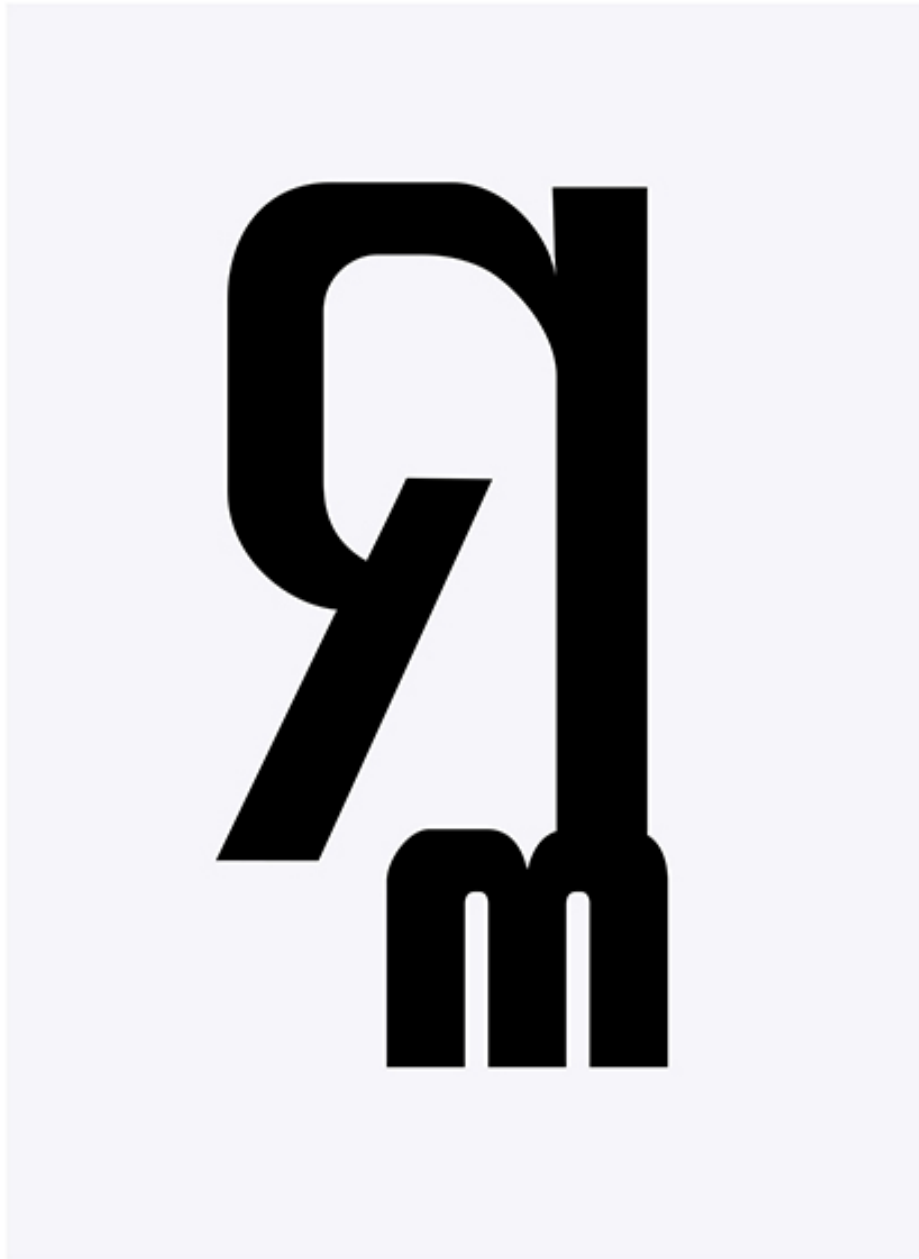


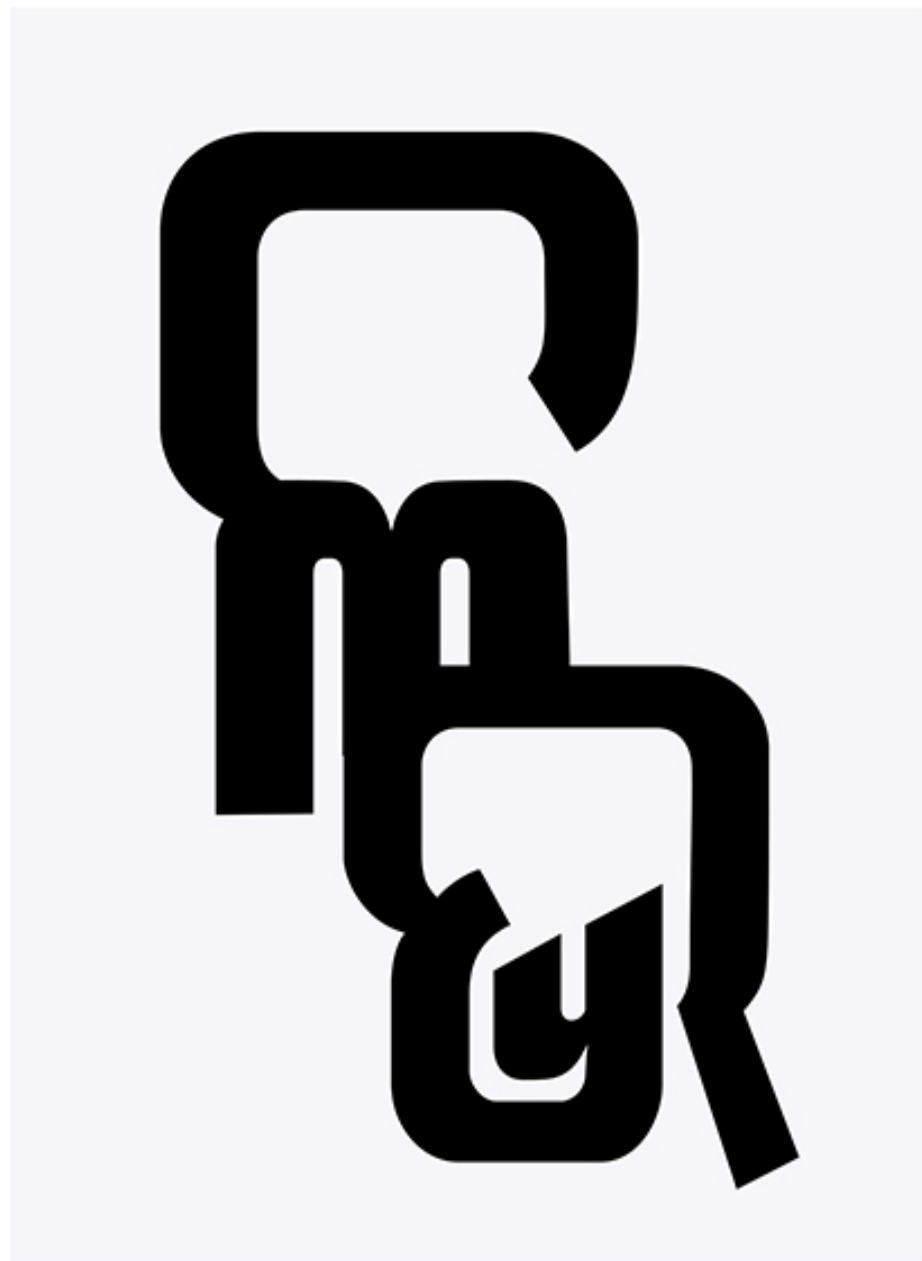
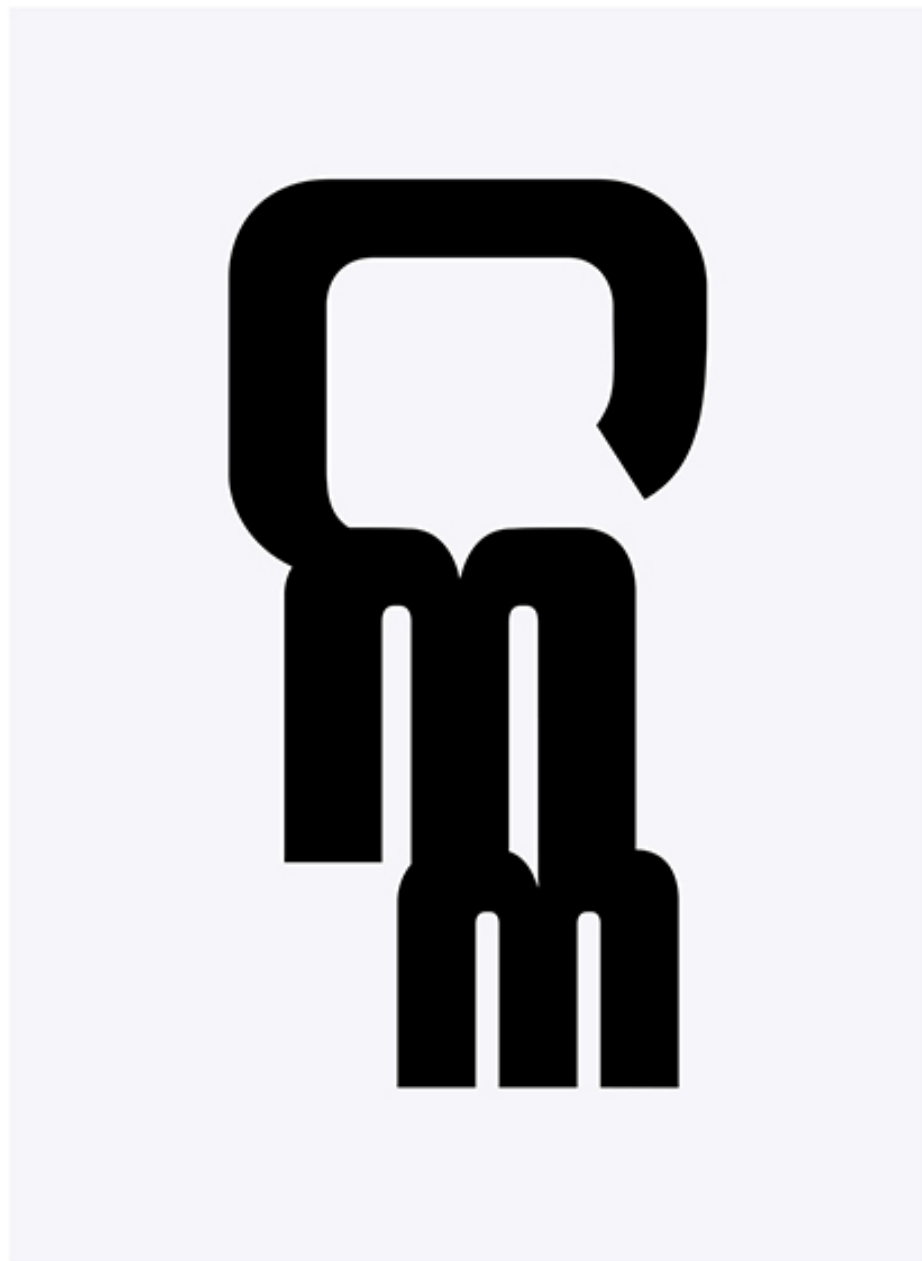


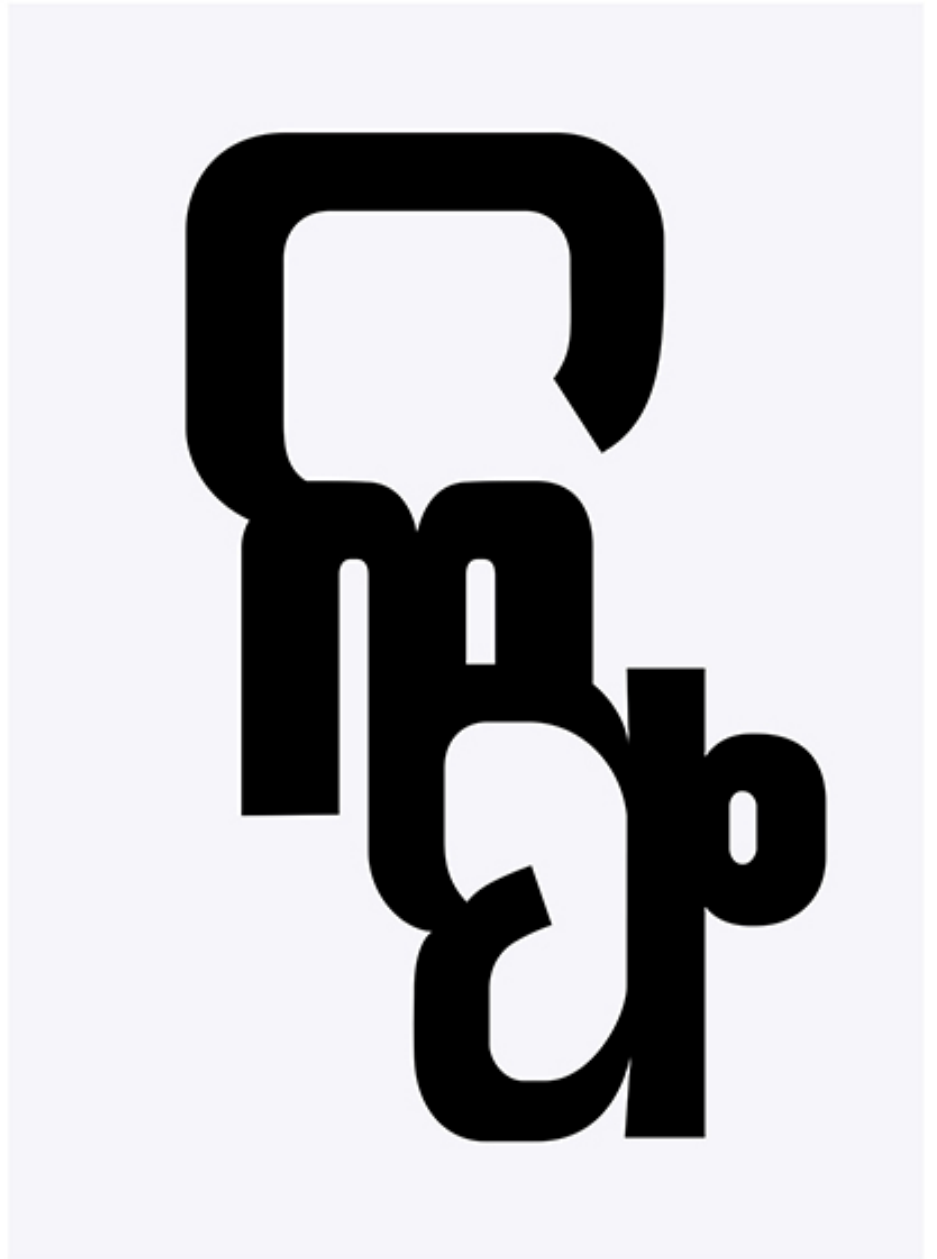
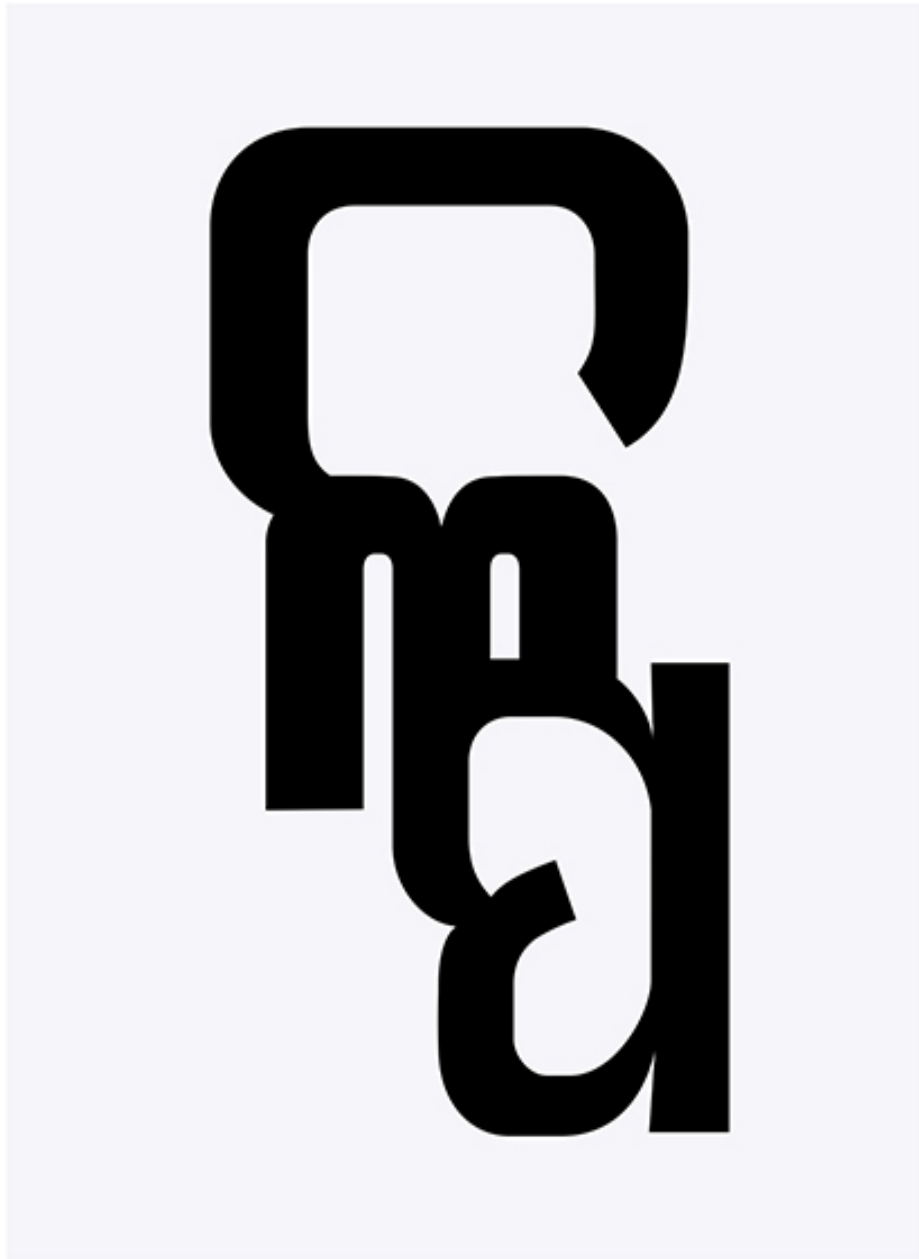


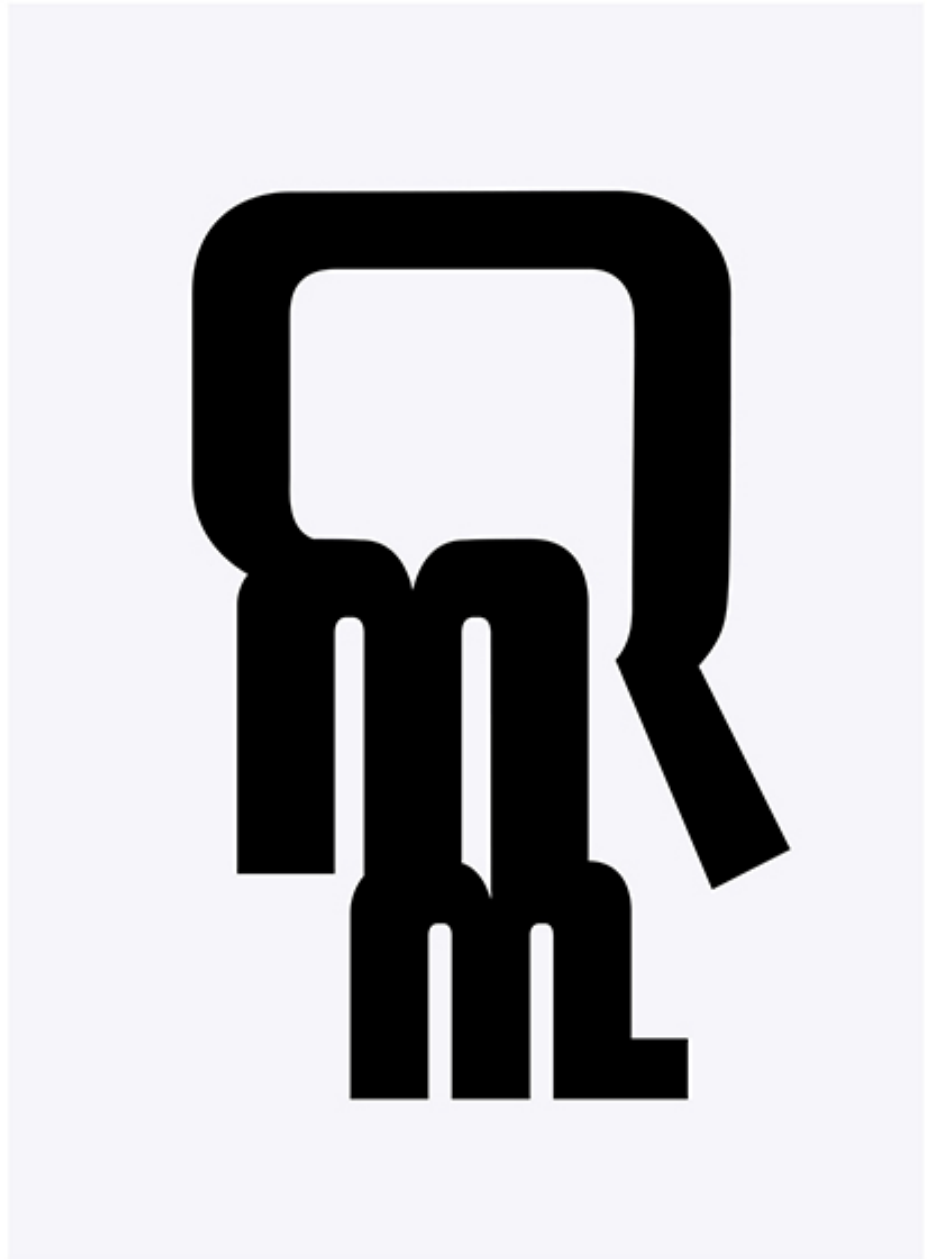


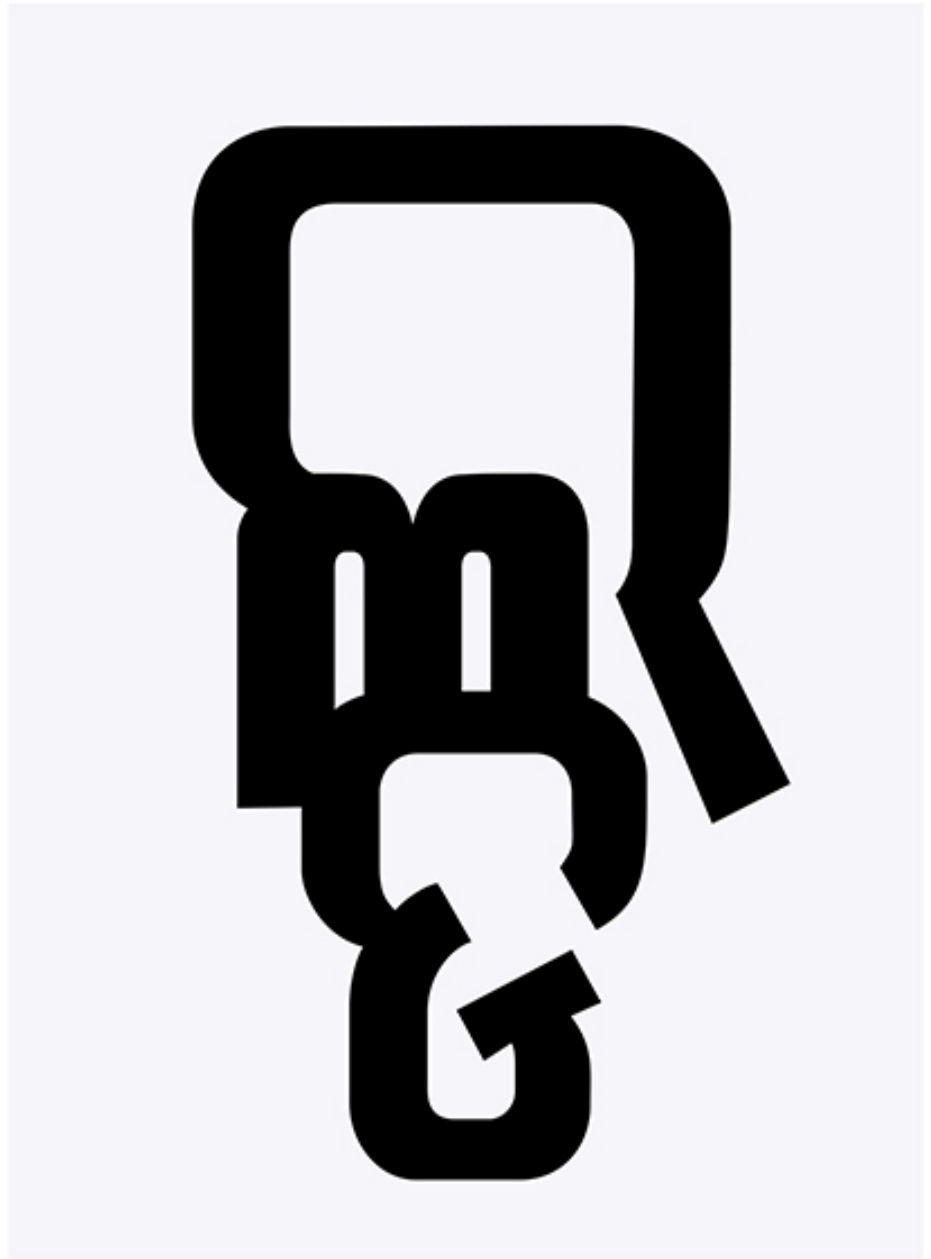
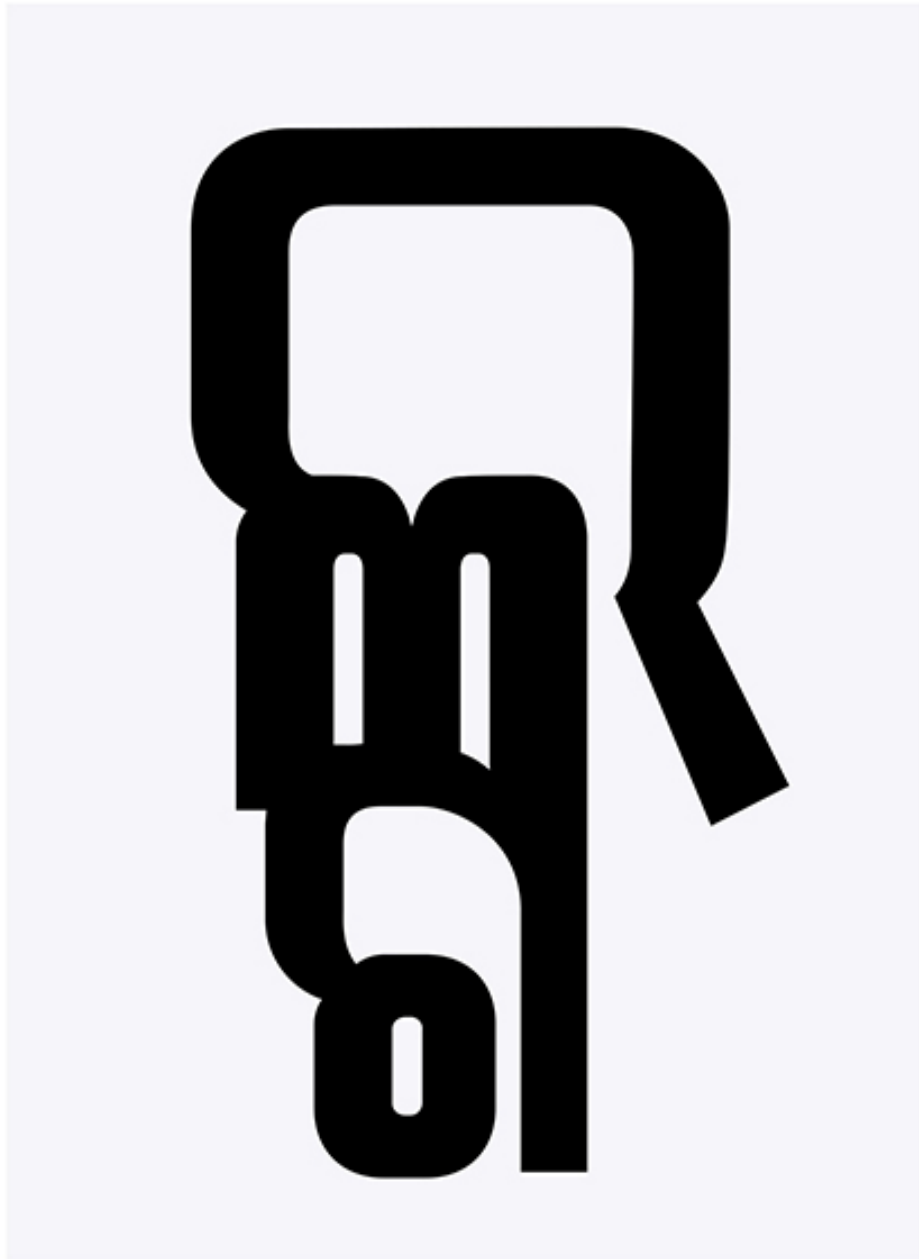


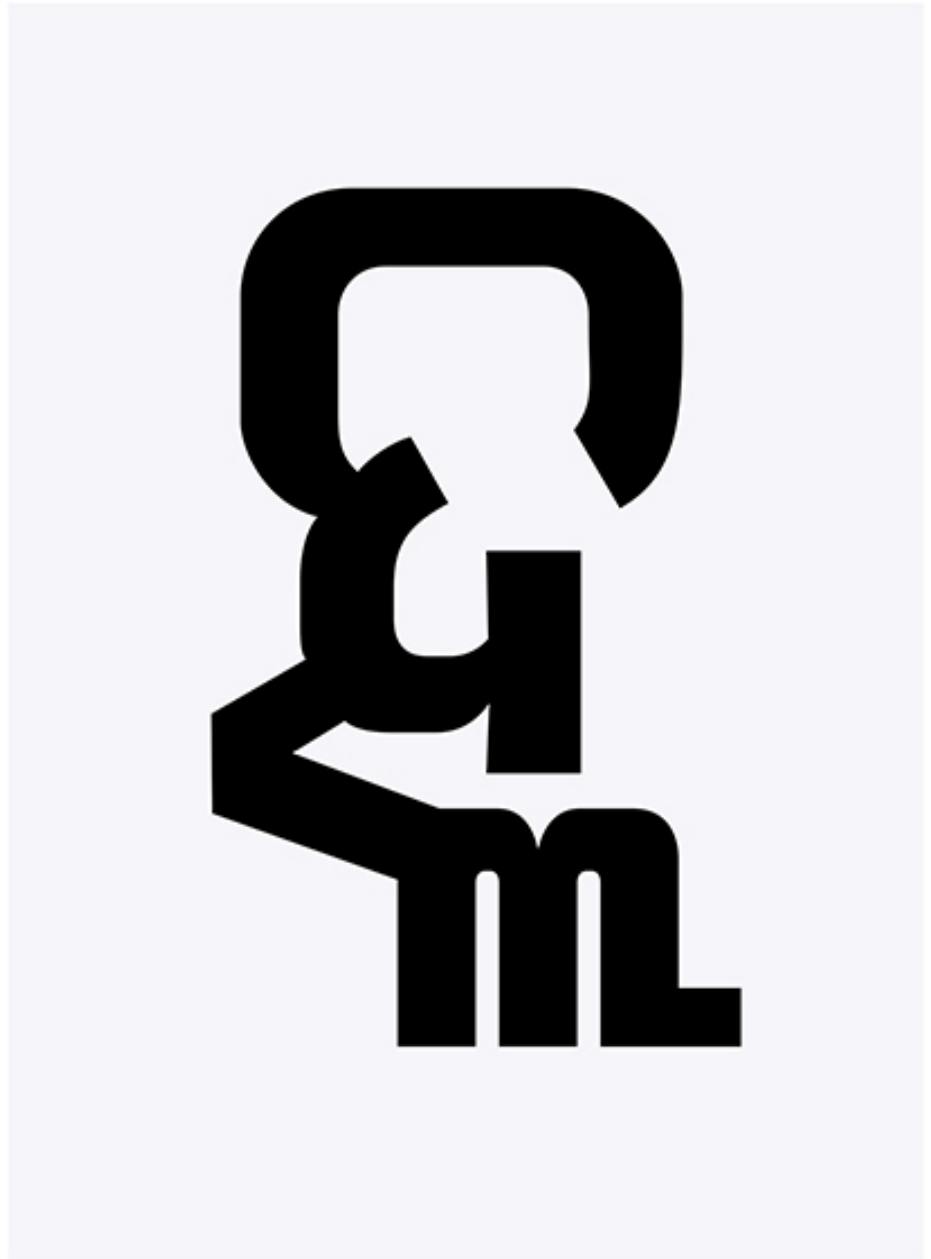




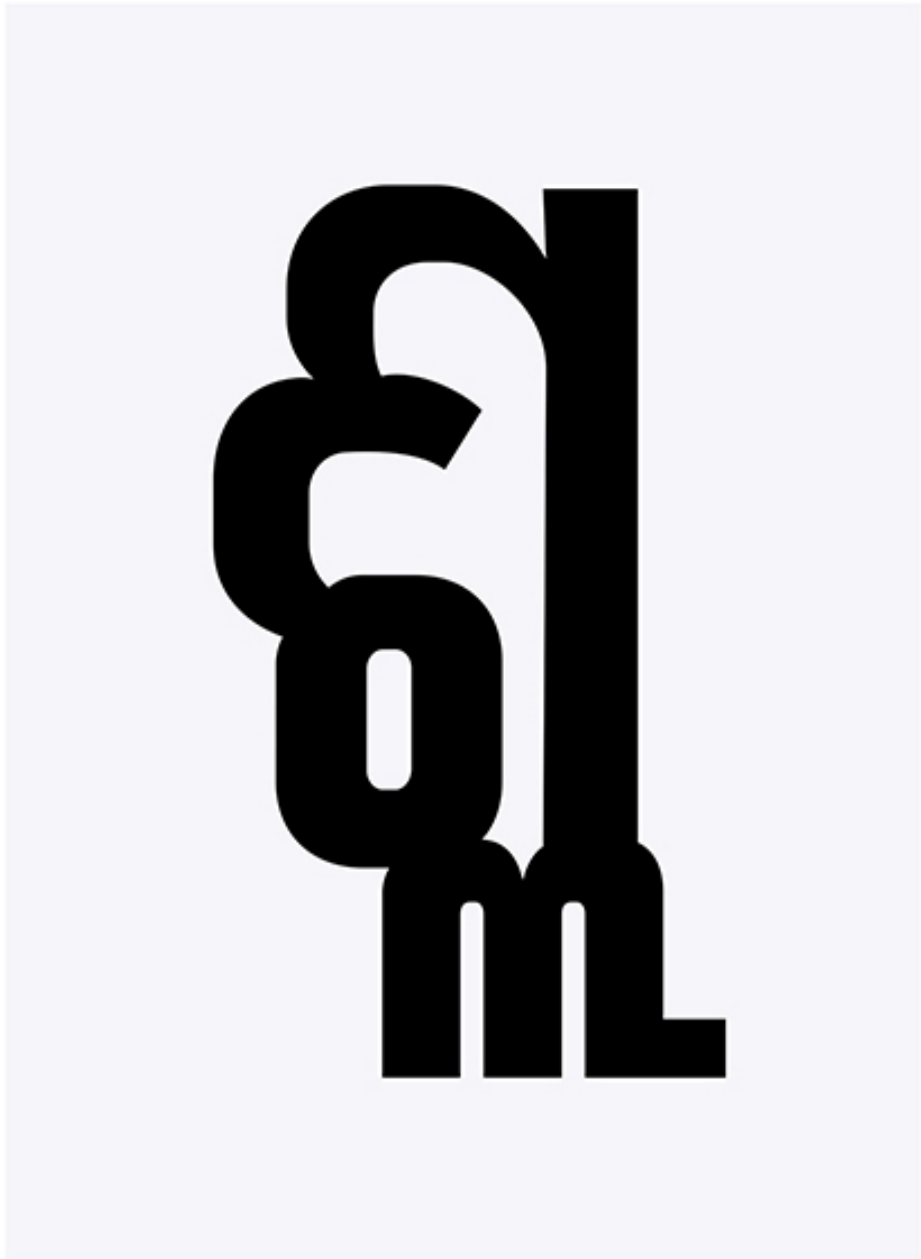
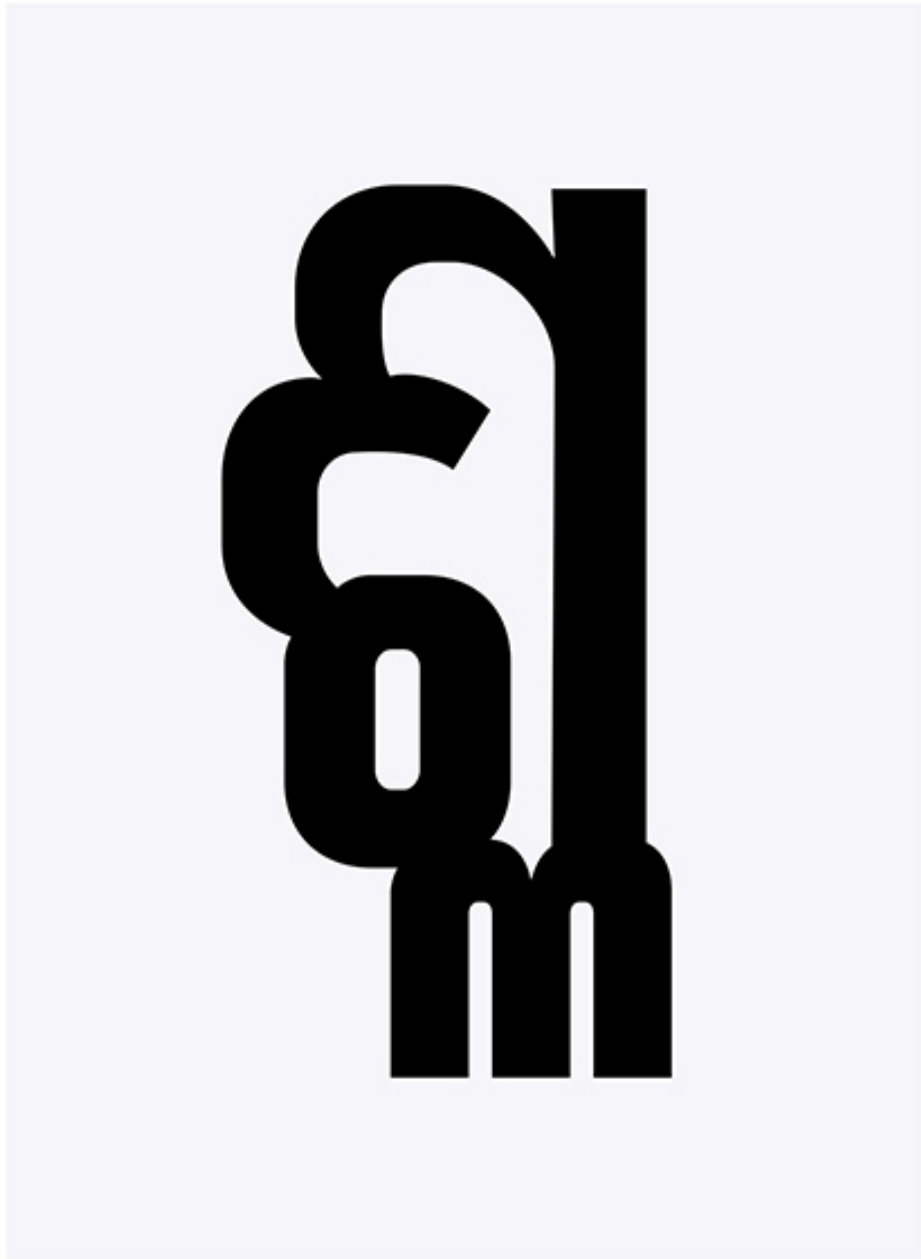






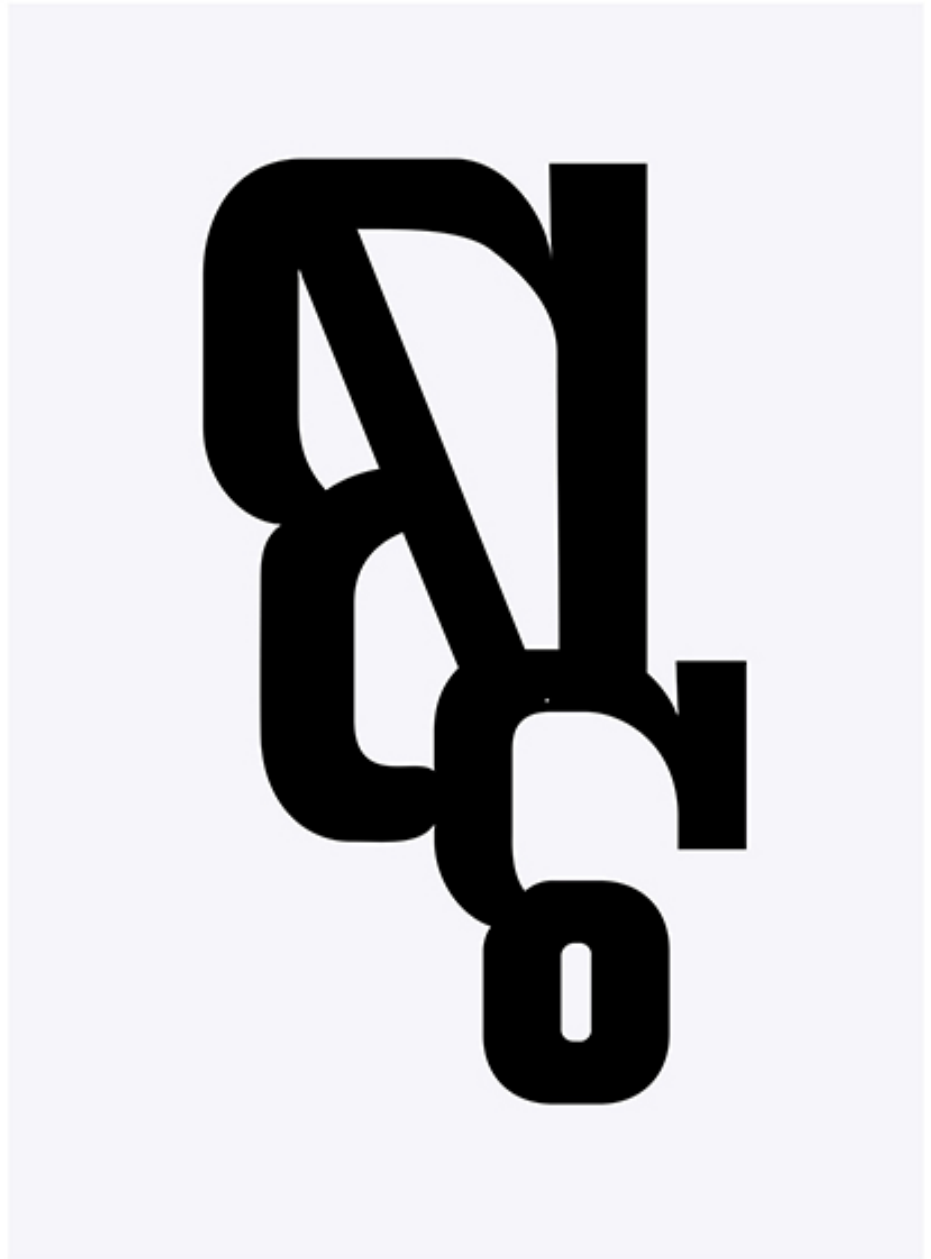
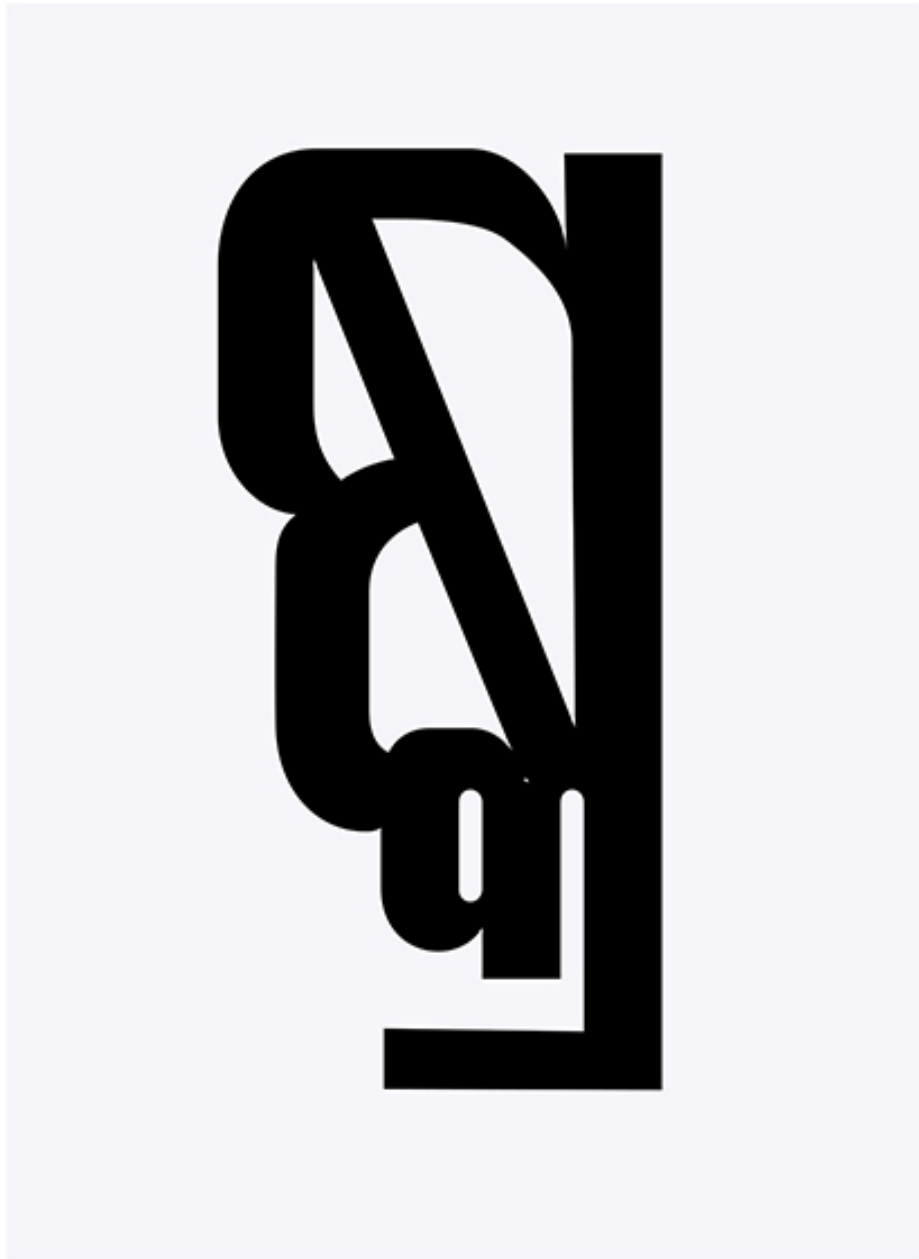


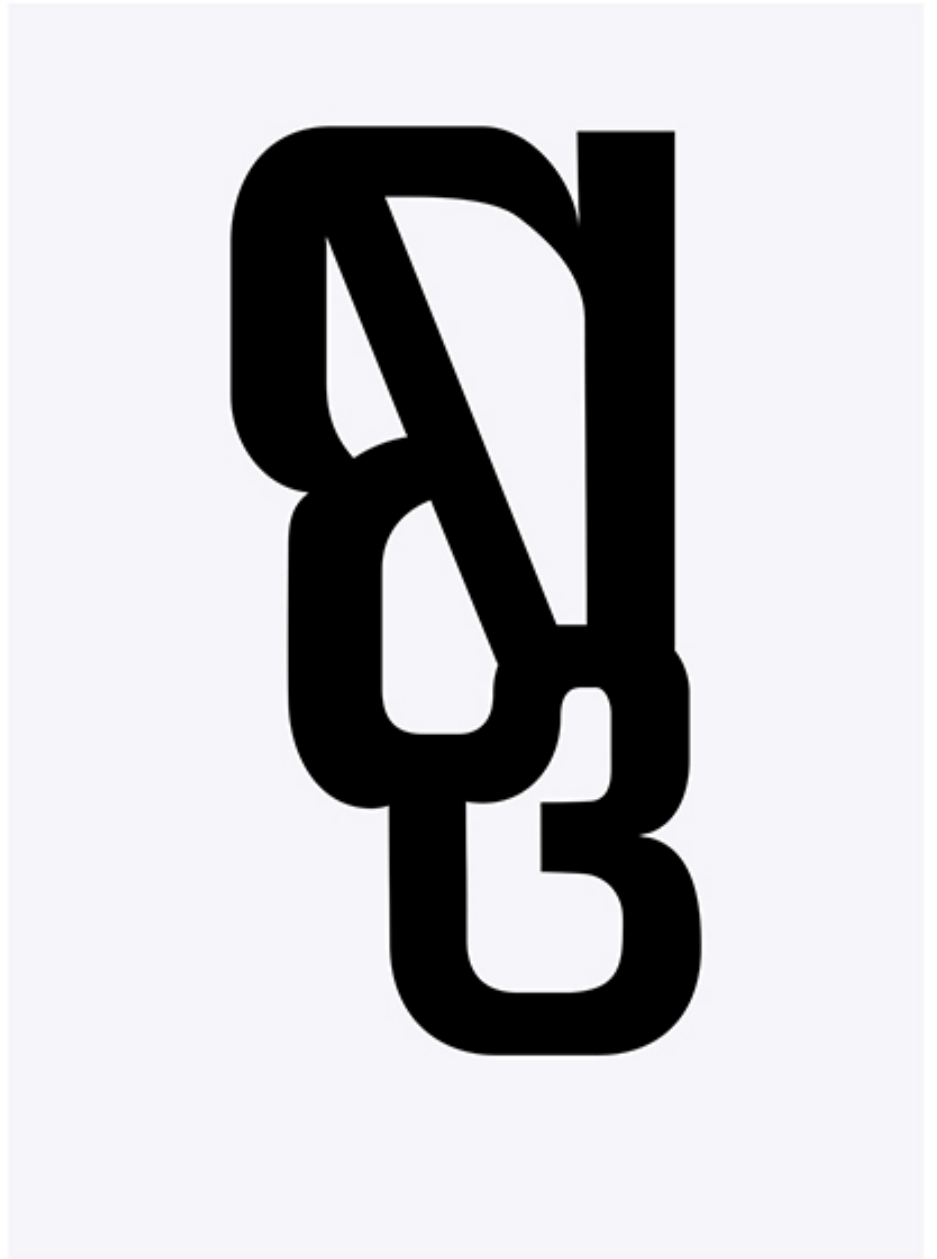


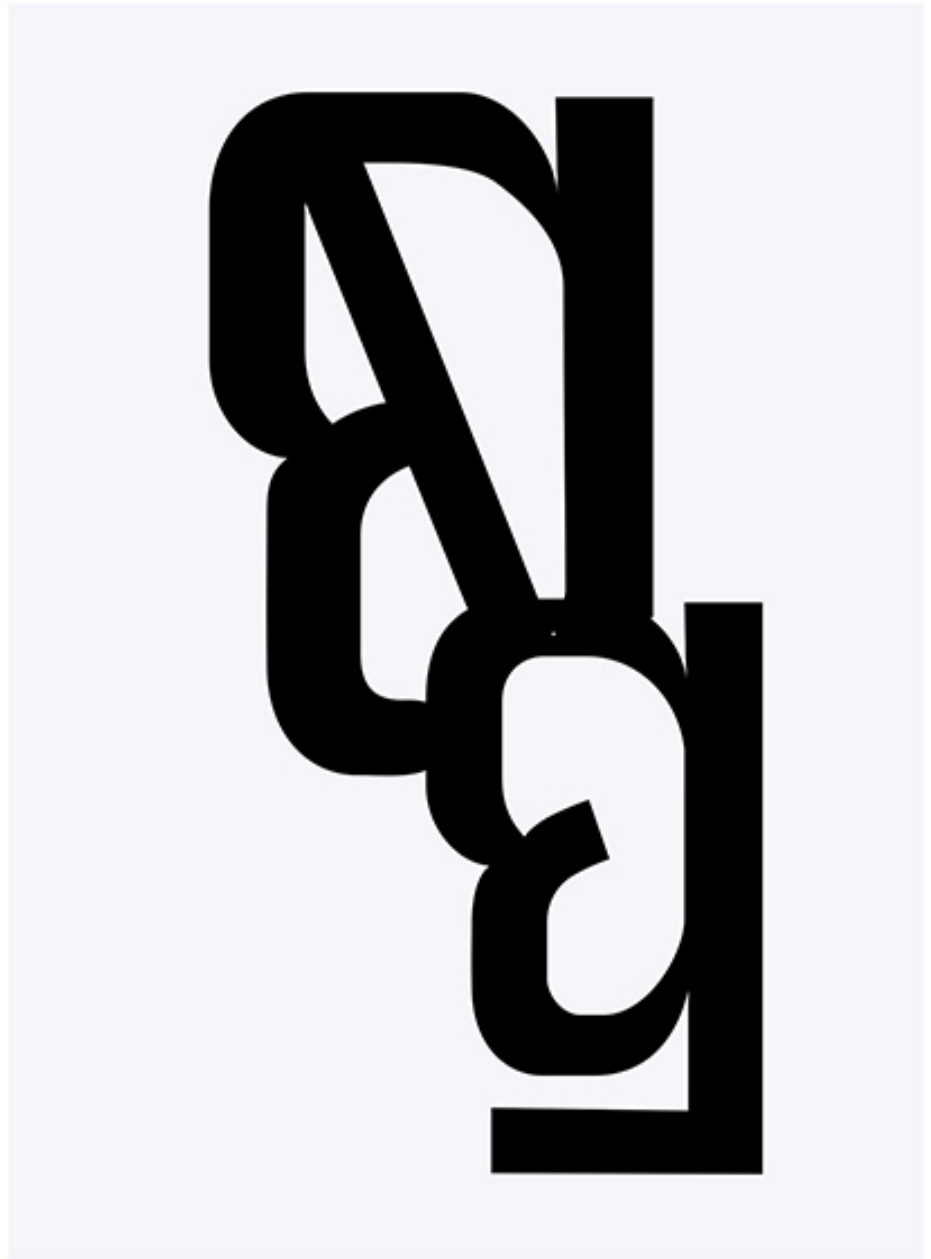
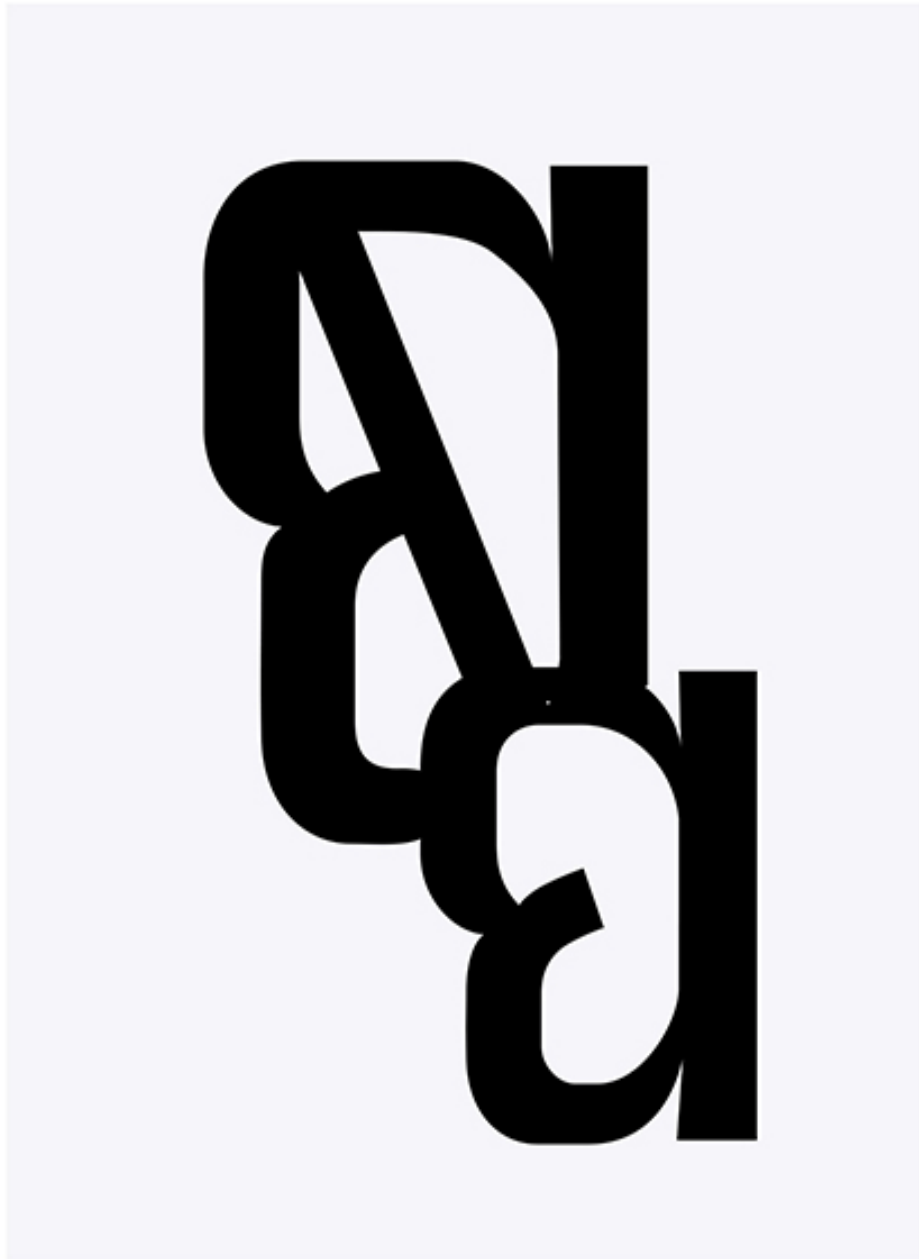


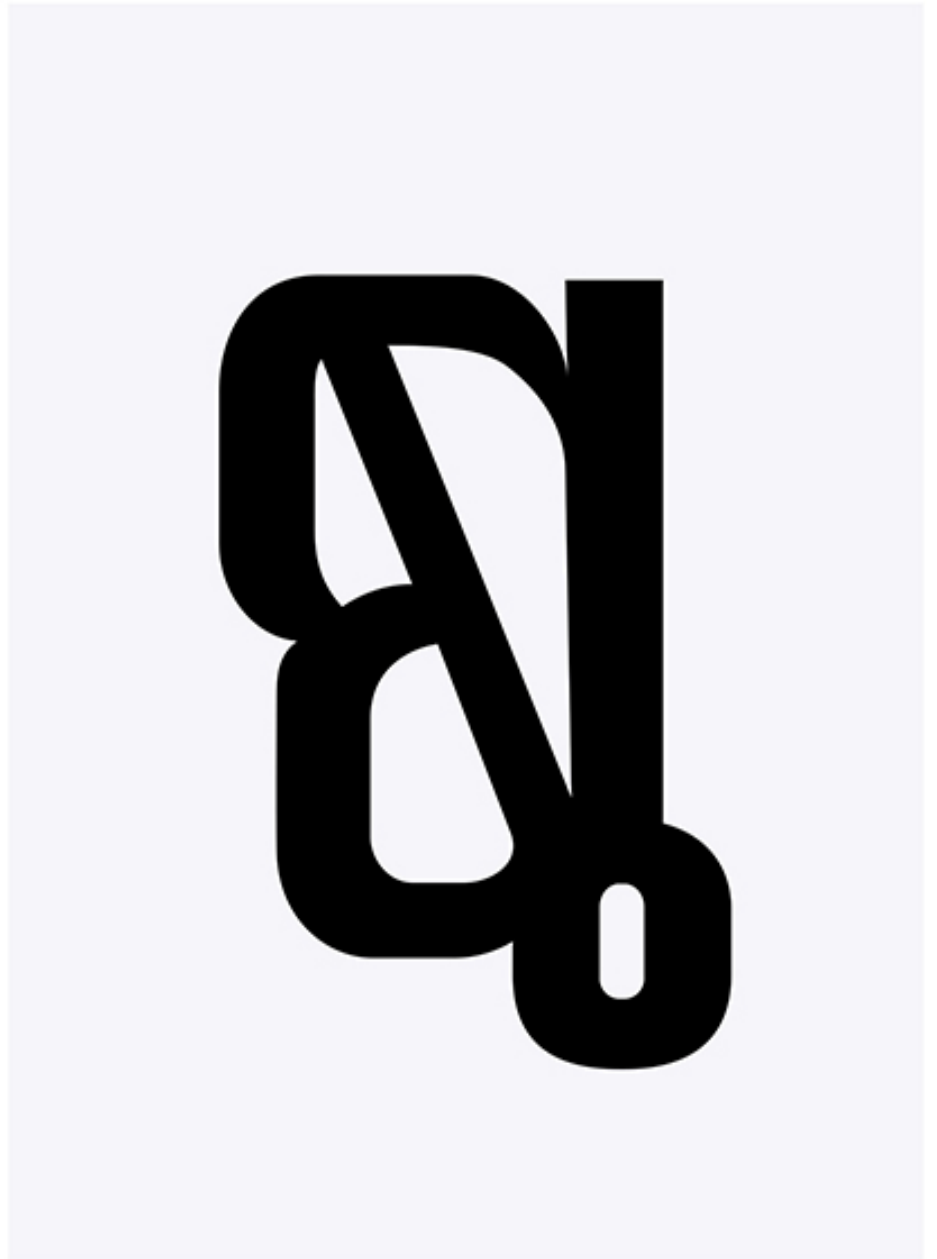
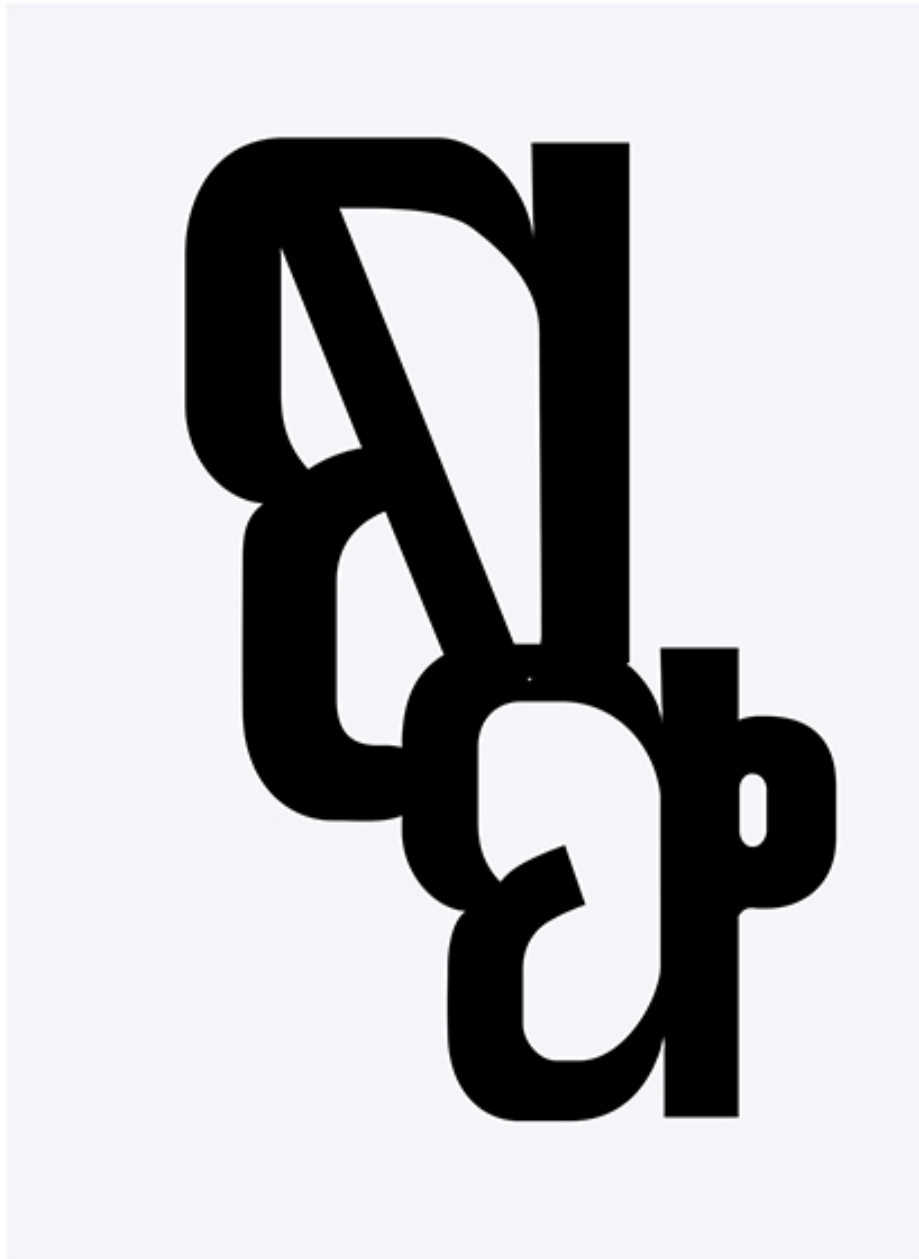


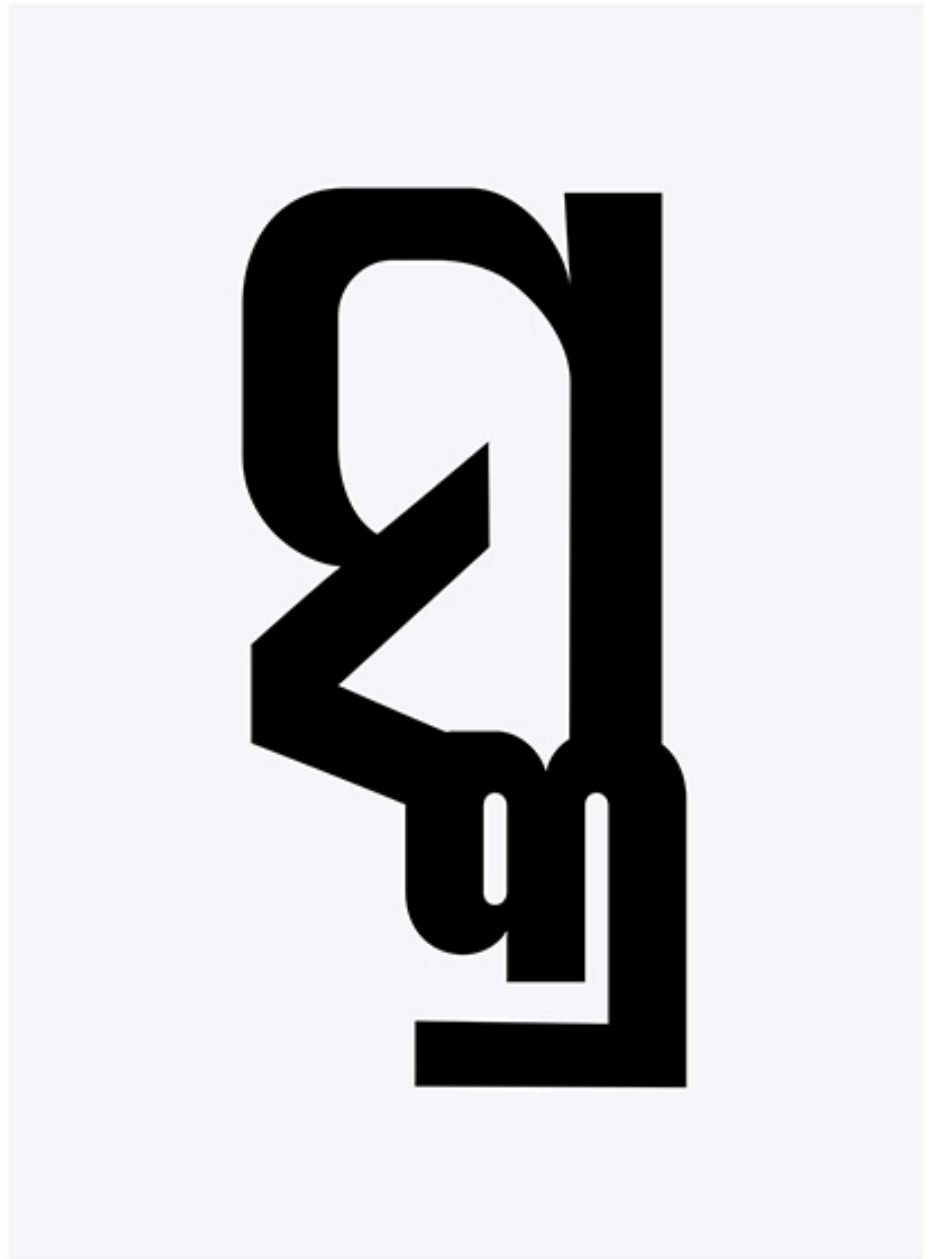


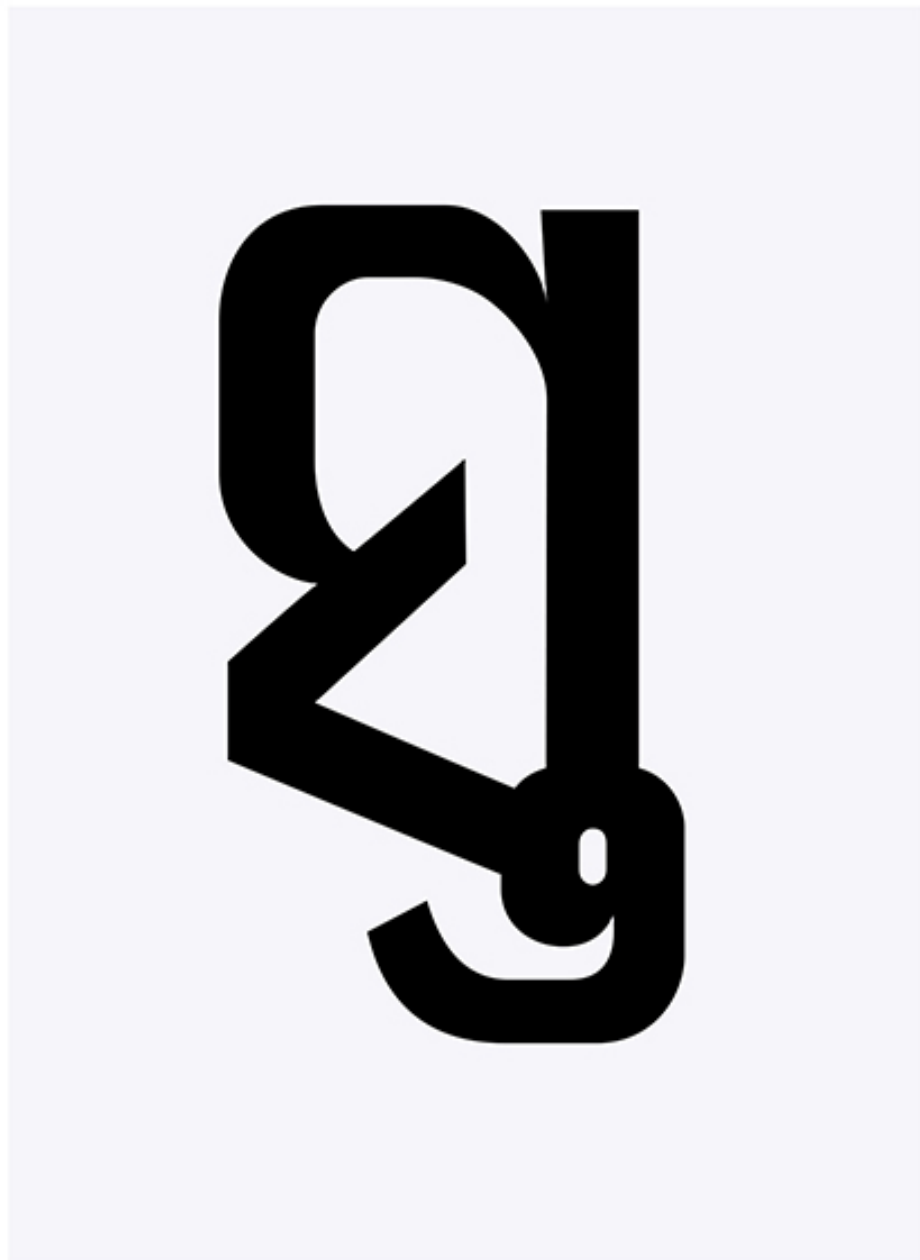


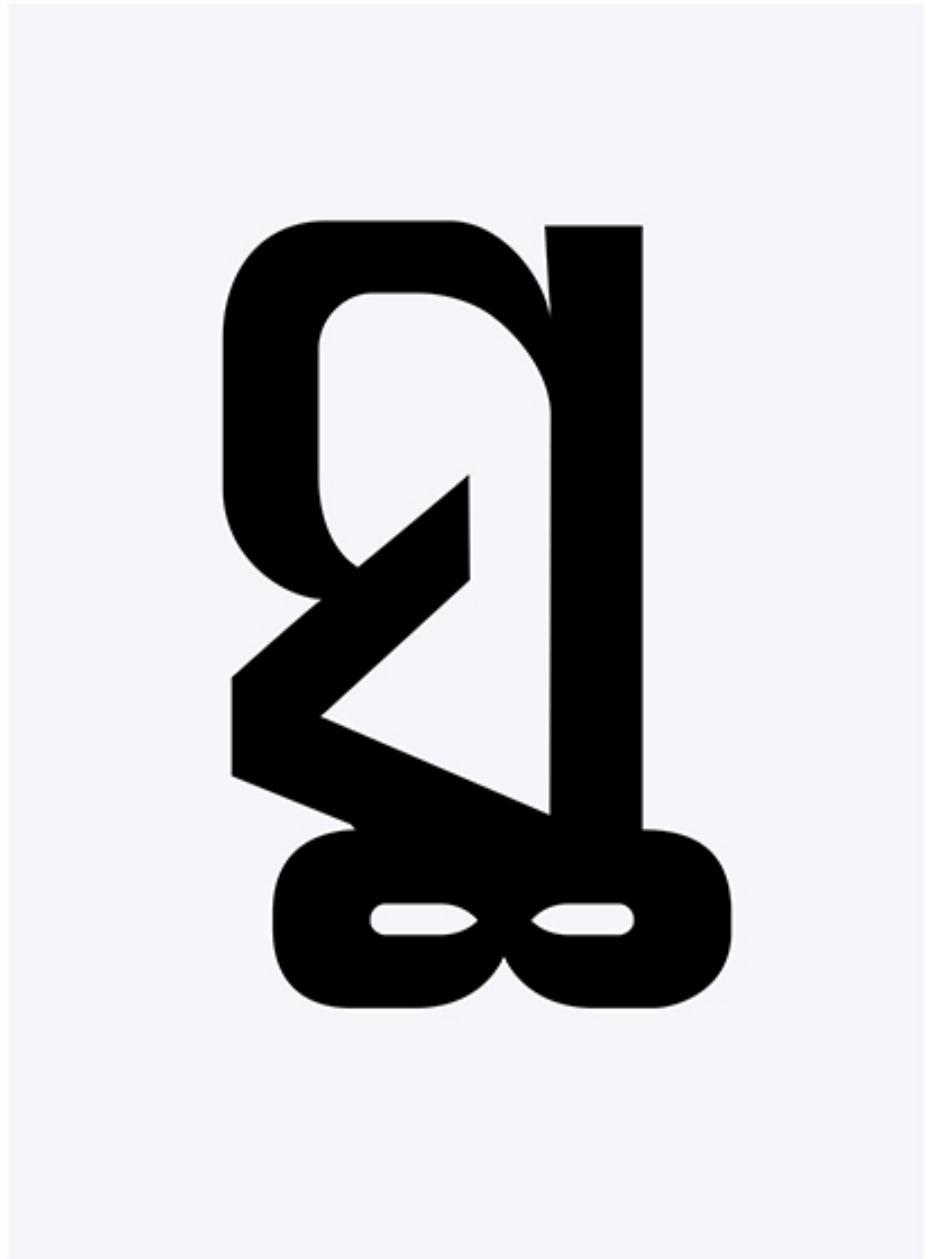
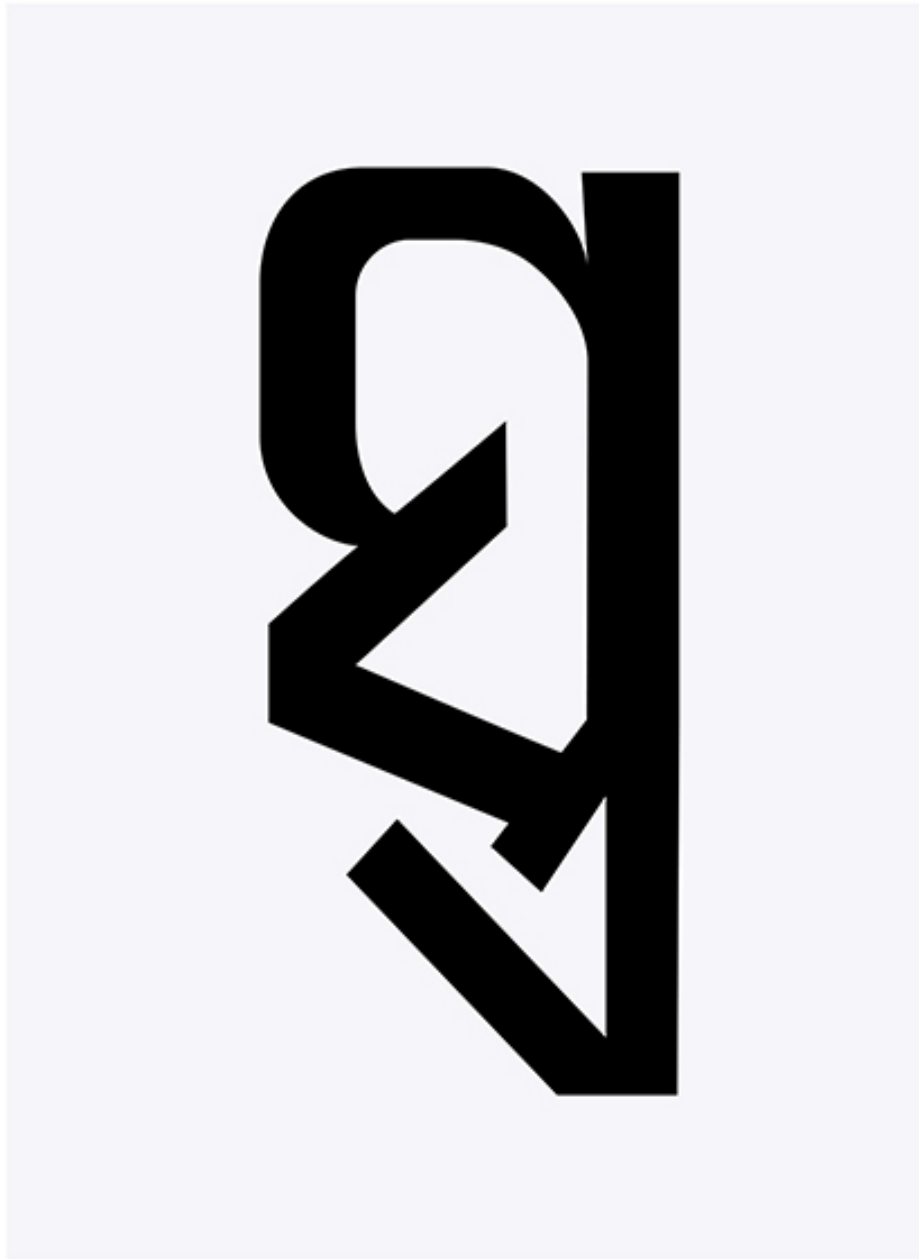


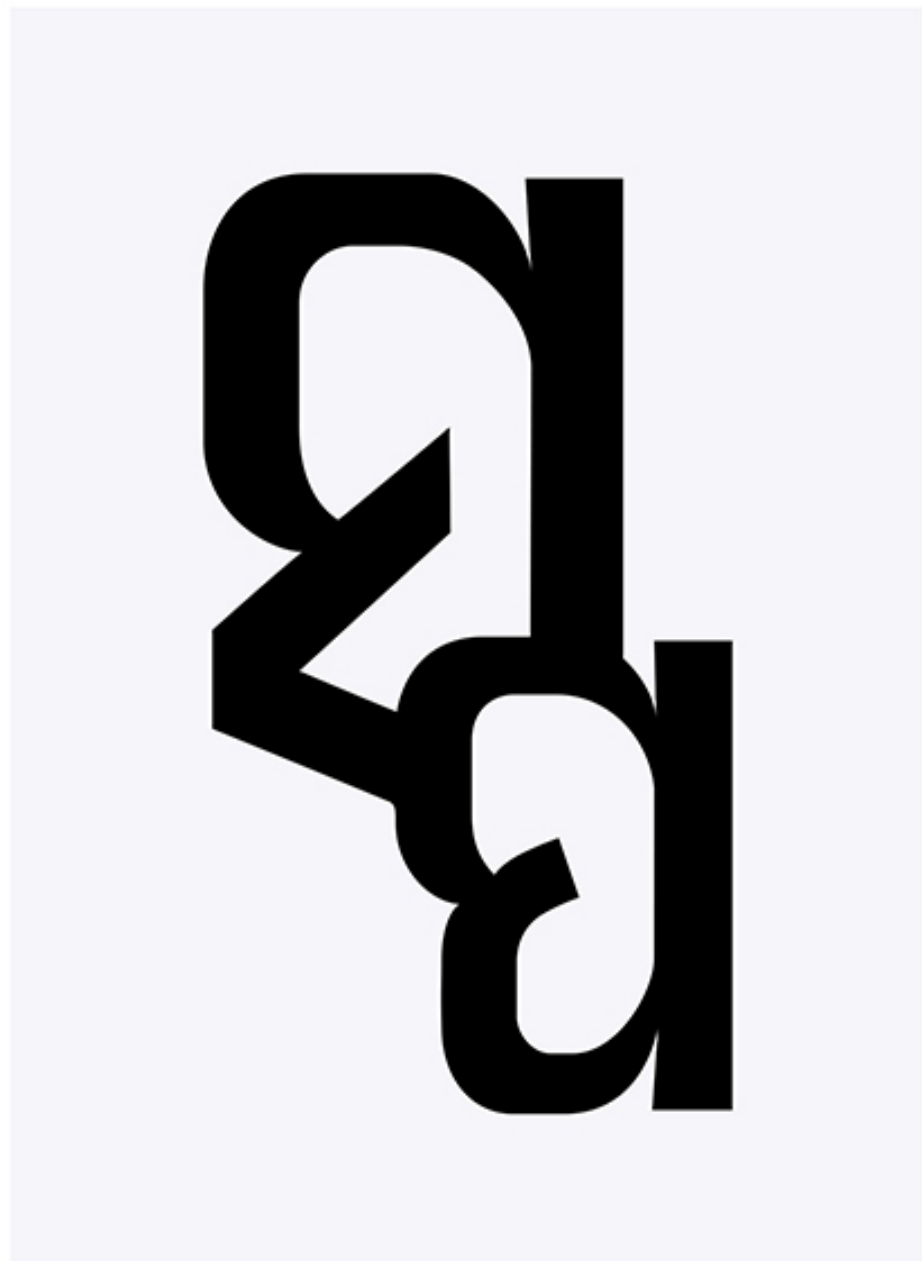
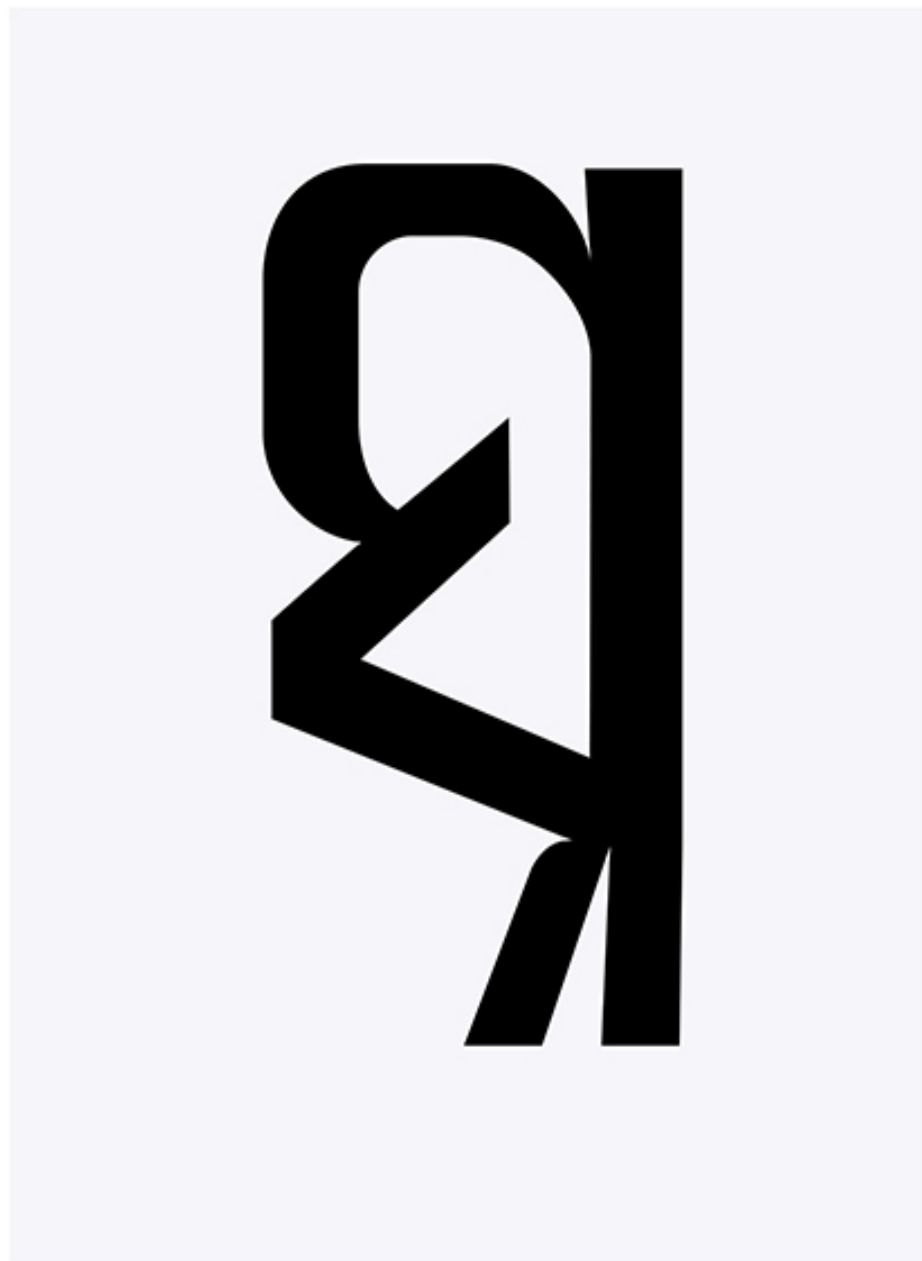


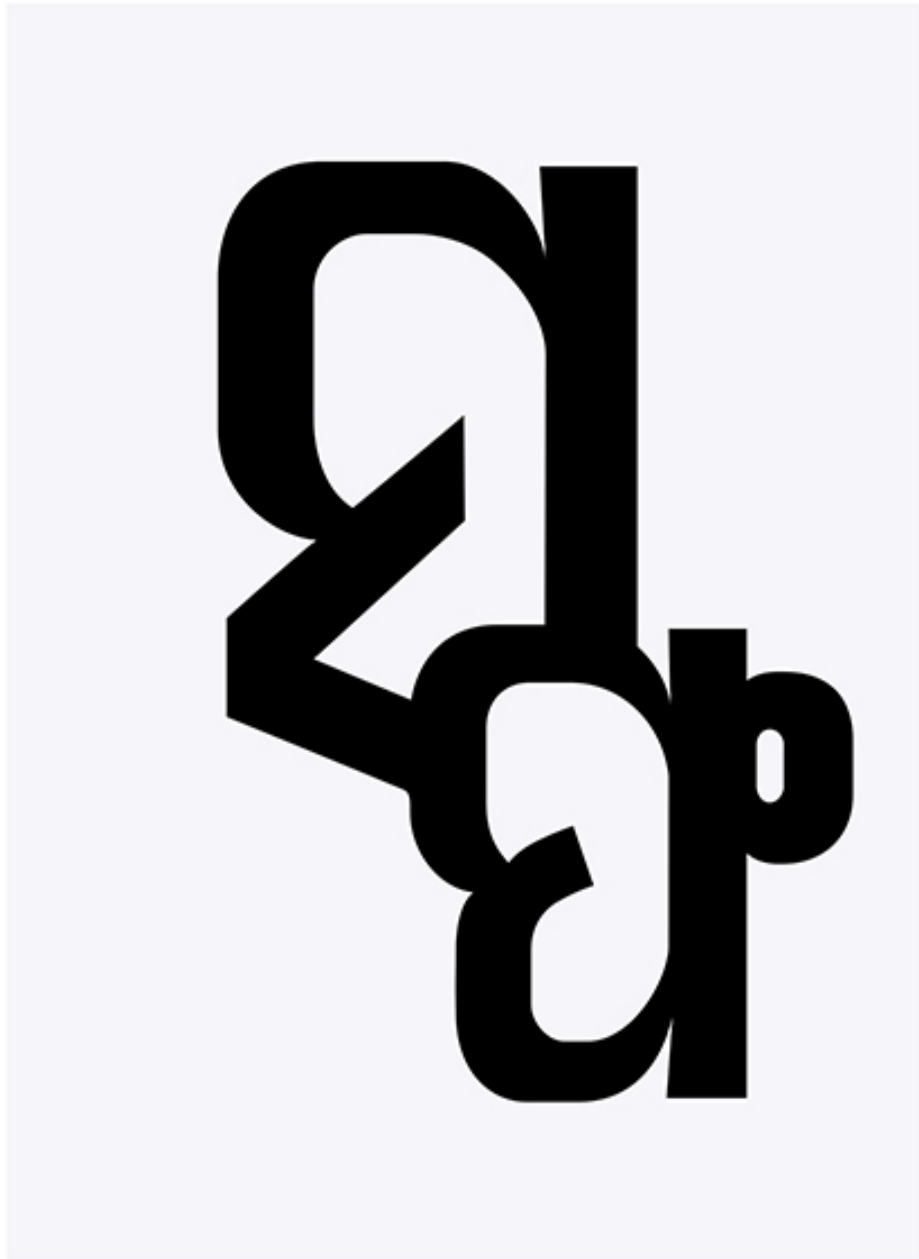




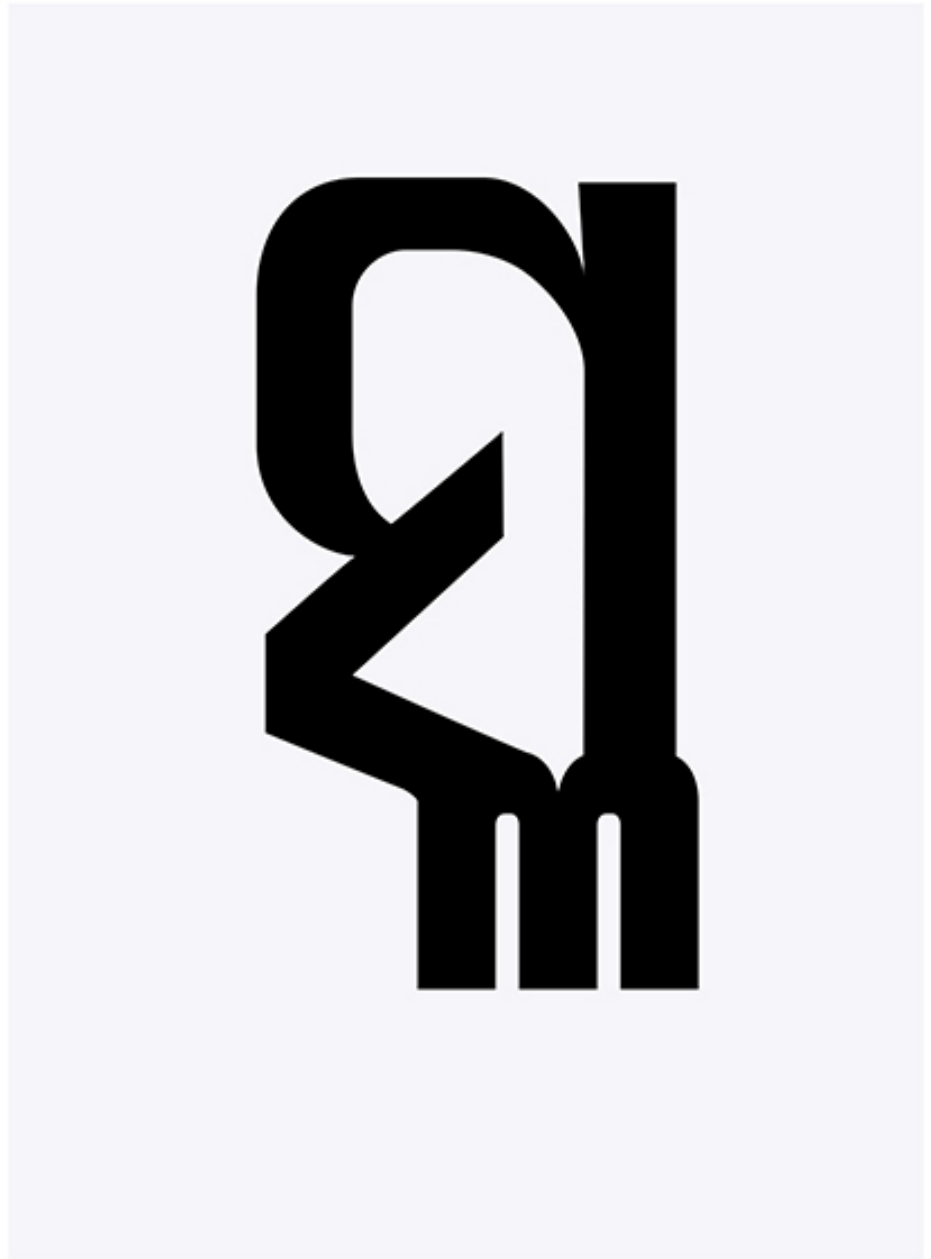


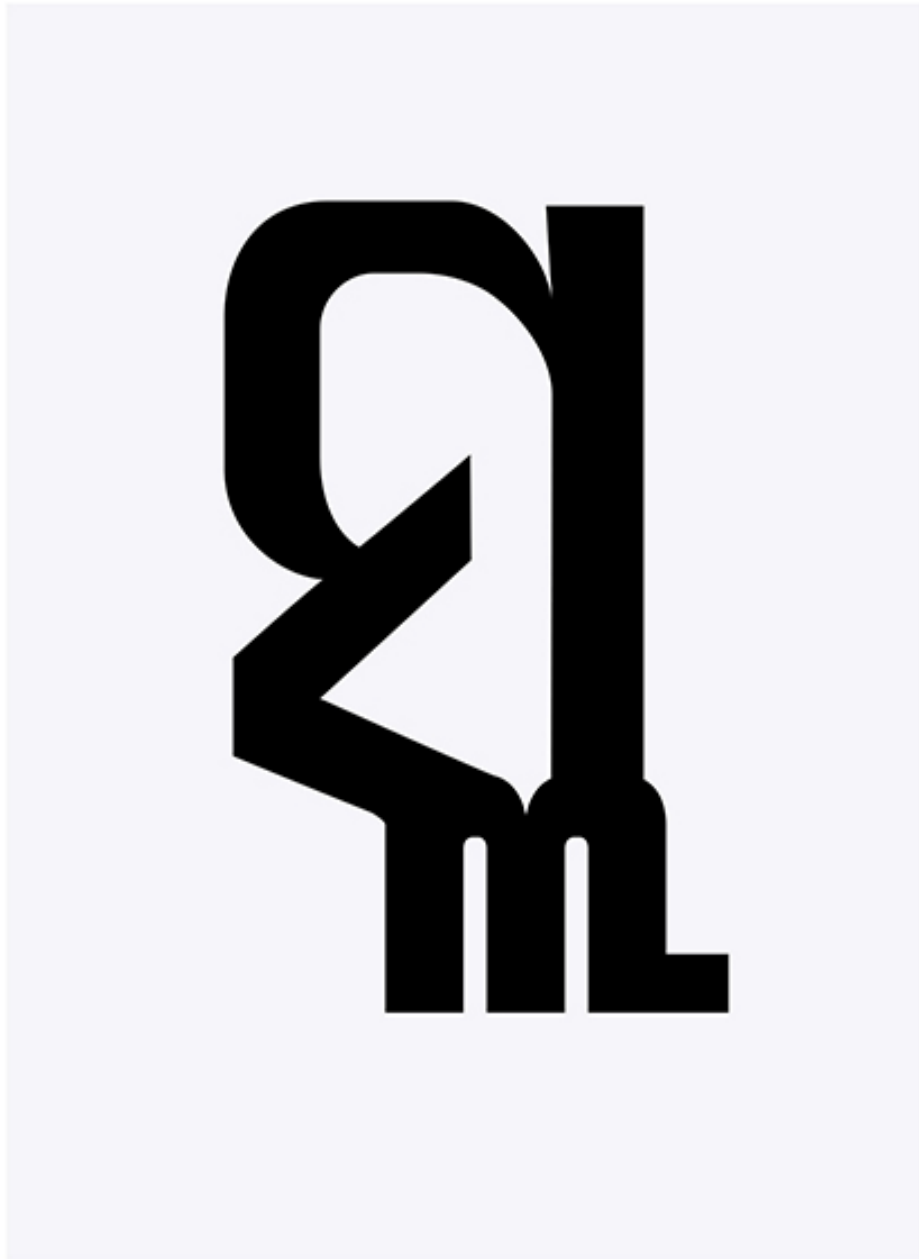














14. References

- Crossland, D., & Penney, L. (2020, 10 11). Variable Fonts Are Here to Stay. Google Design. Retrieved 09 24, 2021, from <https://design.google/library/variable-fonts-are-here-to-stay/>
- Bach, M. (2003 22). Poggendorff Illusion. Visual Phenomena & Optical Illusions. <https://michaelbach.de/ot/ang-poggendorff/index.html>
- Bach, M. (2012). Jastrow Illusion. Visual Phenomena & Optical Illusions. <https://michaelbach.de/ot/geom-jastrow/>
- Bach, M. (2002). Müller-Lyer Illusion. Visual Phenomena & Optical Illusions. <https://michaelbach.de/ot/sze-muelue/index.html>, Cherry, K. (2020, May 10).
- How the Müller-Lyer illusion is used in psychology. Very well Mind. Retrieved February 21, 2022, from <https://www.verywellmind.com/how-the-muller-lyer-illusion-works-4111110>
- Koffka, K. (1999). Principles of Gestalt Psychology (p. 126). Psychology Press.