Tampere University of Applied Sciences

Designing a Typeface for a Brand

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BACHELOR'S THESIS
September 2019

Media & Arts
Interactive Media

ABSTRACT

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
Degree Programme in Media and Arts
Interactive Media

TRANQUILLE, RICARDO:
Designing a Typeface for a Brand

Bachelor's thesis 47 pages
November 2019

The purpose of this thesis was to show how a custom font is made. This was done, first of all, through an introduction to type design, which illustrated ways to construct, correct and space characters in a font. Then, the importance of type in branding was explained, as well as the various reasons why a brand might opt for a custom font, rather than a pre-existing one. This was demonstrated through various examples, as well as an exploration into IBM's custom font, IBM Plex.

In a case study, these concepts were put into practice, describing how a custom font was researched, designed and presented. A typeface, named Okra, consisting of uppercase characters, was built for a jewellery company and made to fit in with its brand and aesthetics.

Custom fonts are meant to represent a brand whilst still functioning as typefaces. In the conclusion of this thesis, this was further elaborated, as Okra's value in terms of branding was discussed in relation to its value as a typeface. This then led to an exploration on the merits and demerits of custom fonts, especially in regard to smaller companies.

Keywords: type design, typography, branding, custom font

CONTENTS

GLOSSARY

Bézier curve	A curved line or path based on a mathematical equation.
Character set	All the characters included in a font.
Custom Font	A typeface created for a client's specific needs. These can be original designs, or modified versions of existing typefaces.
Font	A set of characters in one weight and style.
Glyph	A graphic manifestation of a character in a typeface.
Kerning	The customised spacing between pairs of characters.
Legibility	The subjective degree of identifiability of the characters in a font.
Monospacing	Typographic style where all characters have the same width, including sidebearings.
Readability	The degree of comfort that the reader experiences during the process of reading a font.
Sidebearing	Lateral spaces particular to each character.
Type	Characters assembled into pages.
Typeface	A collection of various fonts designed according to common criteria. Also known as a family.
Typography	The rules and conventions that guide how characters are displayed to make for aesthetically appealing pages.
Weight	The stroke thickness of characters in a font.

1 INTRODUCTION

There are many sorts of fonts. Some are imposing in their design, meant to grab our attention on billboards and posters. Some are instead more restrained, with less noticeable features, as in those used in books and articles. However, even with substantial differences, fonts all go through the same design process. Every letter, number or symbol in a font has had to be crafted, each one carefully optimised to create a sense of balance when used in words and sentences. This is often a complex endeavour. It requires many hours of drawing and correcting shapes and the spaces between them. When a font is published, every detail of its construction should feel coherent within its overall identity, as well as in its intended use.

For some, the decision to use one font instead of another is purely arbitrary. The fonts on our computers are often good enough in most cases, and there are, on the internet, several thousand fonts available to download for free. However, for graphic designers, typographers, and anyone else working with type, picking a font is a more calculated decision. The right font has to fit its brief both aesthetically and functionally. It must clearly communicate with its audience, and in the right voice.

Font choices are also particularly important in branding. As part a company's identity, a font can affect how a brand is perceived. The right font can bring in a sense of openness, innovation, or even luxury. Nowadays, it is also common for large companies to commission custom-made fonts, which are then typically licensed exclusively to the brand. These might be modified versions of existing fonts, or drawn from scratch for the company and its specific needs. Fonts are therefore ownable brand elements, like logos and packaging.

There is a growing need for custom fonts. Whereas other fonts might be perceived based on their appearance or features, custom fonts must also represent their respective brands, and solve any specific problems they were designed to solve. They must thus work both as a font and as part of a brand identity. This

thesis will delve more into this topic, by explaining what goes into creating custom fonts. First of all, type design will be introduced, so as to illustrate how good fonts are built. Branding, and the importance of type in branding will also covered, as well as the process behind some notable custom fonts. Later, a case study will show how a brand's identity can be conceptualised into type, through the planning and design of a custom font for Okra, a jewellery company. Finally, in the conclusion, the growing popularity of custom fonts will be discussed, as well as their merits and demerits.

2 DRAWING TYPE

Technically, a font is a set of characters in only size and style (Cheng 2005, 10). They can be regular, *italic*, **bold**, or anything else in between. When grouped together, fonts are known as a typeface. Times New Roman, for example, is a typeface made up of four fonts (figure 1). In a typeface, fonts will share similar features, but serve different purposes – they are designed to coexist and for each one to work at a different hierarchal level of a page's layout, such as in headlines, body text, or used for emphasis (Lupton 2010, 48).

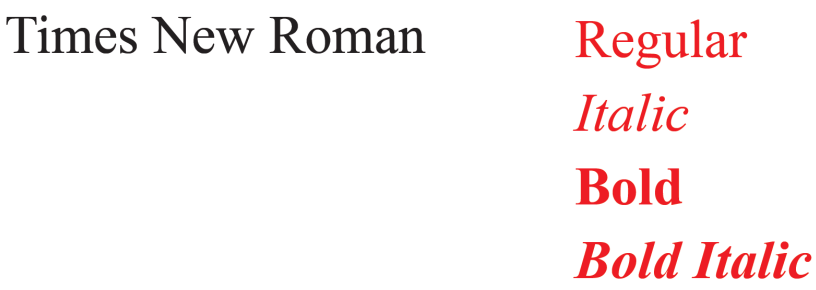

FIGURE 1. The typeface Times New Roman, with four of its fonts.

Before computers, characters in a font would mostly be cast out of steel and lead, and later arranged into sentences, inked and pressed onto pages (picture 1). These individual pieces, known as moveable type, were part of a system developed in China around 1040 AD. Initially carved in wood, moveable type was further developed in Korea, before reaching Europe in the 15th century. Used in combination with a printing press, which allowed for an even distribution of pressure – and therefore, ink – on a page, moveable type made it easier to print books and share information (Samara 2018, 22-23.) Soon, this system came to replace handwritten books entirely, and other craftsmen around the world began moulding characters in their own languages (Dittmar 2011).

PICTURE 1. Moveable type arranged into a sentence.

Nowadays, typefaces are designed using specialised computer software, known as font editors. Characters are drawn using Bézier curves, similar to those used in programs such as Adobe Illustrator or Photoshop. A Bézier curve will have anchor points, placed on the outline of a line, and control points, which influence the progress of the curve (figure 2) (Underware 2018). This allows for more precise mathematical curves in print, especially when compared to pixels. Bézier curves also make it easy to repeat shapes from character to another.

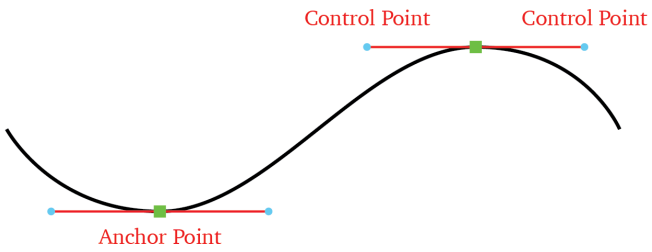

FIGURE 2. Bézier curve, with anchor points and control points.

Font editors come with a range of functions, allowing type designers to not only draw letters, but also test out their kerning, as well as to extrapolate shapes for alternate weights (Scheichelbauer 2015). These applications are also increasingly user friendly, and nowadays, a simple font can be drawn up with just a basic knowledge of Bézier curves and type design. Some font editors, such as Glyphs, will also work with plugins for more technical modifications, such as to calculate the diameter of a curve or even to predetermine characters' spacing. This can streamline the design process and make for more robust typefaces.

Many type designers will post their work online, either licensing typefaces to individuals or companies, or distributed for free, with open source licenses. The

quality of type available online can therefore vary greatly, and it is not uncommon to find free fonts with inaccurate spacing or with less characters than their pricier alternatives (Strizver 2014). For this reason, it's important to know which qualities separate one typeface from another, and what makes them better or worst. This typically means breaking down their design and spacing, as well as their overall attitude or personality (Strizver 2014, 71-72).

Designing a typeface can often take several months, even years, and knowing what exactly goes into this process is key to knowing how to differentiate fonts. Understanding, for example, the various features of a font can help explain why it looks the way it does, and what contexts suit it best. This chapter, therefore, will cover how typefaces are designed, as well as some of their important attributes.

2.1 Letterforms

Designing type can be relatively straightforward. Characters are drawn with simple lines that intersect, round off or slant away from one another. At its core, a font is simply a collection of consistent shapes, each one attached to a particular character (Lupton 2010, 77). These shapes can be rudimentary or complex, modified several times over by a designer in order to find an optimal balance within a whole typeface. This attention to detail is often what makes a good font, where every character, when used alone or in a sentence, will speak with the same voice and with the same personality (Strizver 2014, 71-72).

Enlarging a font's characters will often give insights as to their design. For example, in figure 3, four characters set in Futura Medium have been blown up, and their differences highlighted. At this size, the white space inside every rounded character, known as their counter, is clearly more oval than round. However, when the same font is displayed at a smaller size, these counters appear almost perfectly circular. The effect of the font therefore varies based on its size. Furthermore, the ring that makes up the letter *o*, which seems even when downsized, actually has different dimensions throughout its shape. This is a de-

liberately designed feature, known as optical compensation, where shapes are modified to give the impression of being mathematically balanced, even if they differ in dimensions and strokes (Henestrosa et al. 2017, 46.)

FIGURE 3. Enlarged characters. (Futura Medium)

Because characters in a font are meant to interact with one another, many of their shapes will need to be optically compensated. This is done in order to counter an optical illusion that happens when different shapes are placed together (Frere-Jones 2015). For instance, figure 4 shows a square and a circle with and without optical compensation. On the left, both shapes have the same width and height, causing the circle to appear slightly smaller. On the right, once corrected, the circle has been enlarged, thereby giving the impression that both shapes are equal in mass. Similarly, in figure 5, both letters on the left have the same thickness. This causes a weight imbalance, with the diagonal in particular looking much thinner than its surrounding strokes. When optically compensated, on the right, the *N* has a thicker diagonal, and the *E* a thicker vertical stroke, with thinner horizontals.

FIGURE 4. Left: Shapes with equal width and height. Right: Circle slightly larger than the square.

FIGURE 5. Left: Equal strokes throughout. Right: Lines adjusted to look even. (Helvetica Neue)

Without these compensations, a typeface can have several issues, especially in terms of legibility and readability. In type design, legibility is the degree of identifiability of the characters in a font – if we are to understand what we read, we should be able to make out one character from another. Readability, instead, measures the comfort that the reader experiences while reading a font (Henestrosa et al. 2017, 142-143.) Sentences should have a flow to them, and as our eyes move from one word to another, we shouldn't be distracted by any of the font's design. When not optically compensated, a font will often have noticeable imperfections, which can sometimes be distracting (Henestrosa et al. 2017, 55-56). It is integral therefore that type designers test out their fonts often, using different media, such as on screens and in print (Henestrosa et al. 2017, 54).

2.2 Spacing

Creating a typeface that is both legible and readable means that characters will have a relationship with one another. They should communicate through their shapes, as well as through the spaces between these shapes. The cadence of characters placed one after the other should be harmonious and predictable (Henestrosa et al. 2017, 79.) In a font, in order to ensure characters do not touch each other, each one comes bundled with spacing on their lateral sides, known as sidebearings (figure 6). These will vary based on each character's construction, as well as on the appearance of the overall typeface (Cheng 2005, 220.)

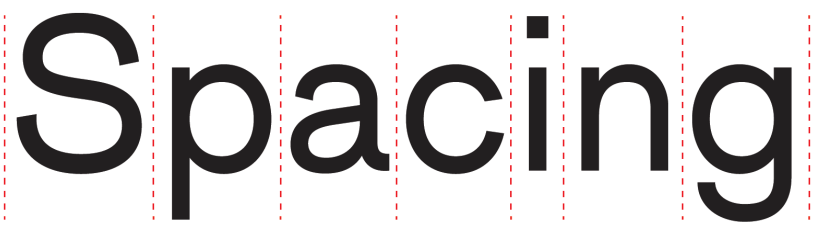

FIGURE 6. Characters with sidebearings. (Aeon Hexa)

Sidebearings can help fit most letters together, but there are still times when two specific characters will seem too close or too far apart from one another. When this happens, the spacing between these two letters will require an adjustment known as kerning (Cheng 2005, 226.) For instance, in figure 7, the same words are shown with and without kerning. In the top, without kerning, the spaces between letters *K* and *e*, as well as *n* and *g*, and *A* and *V* look slightly wider than the spacing between other letters. Once properly kerned, the positive space inside characters appears to match the negative space around them. In order to keep this rhythm consistent, it is not uncommon for a font to have several dozens of kerning pairs (Ellison 2006, 182).

FIGURE 7. Top: No kerning. Bottom: With kerning. (Public Sans)

In some typefaces, groups of characters can also be joined together to make new glyphs, so as to resolve their spacing and appearance. These are known as ligatures. Some important ligatures are shown in figure 8 below, such as the ampersand, which merges the letters *e* and *t*, as well as the *fi* ligature, which resolves technical issues that arise when these characters are placed together. In this case, the top of the *f* will often intersect with the diacritic dot of the *i.* Sometimes, this is fixed by making the curve of the *f* shorter, and in other cases, by removing the dot atop the *i* (Henestrosa et al. 2017, 142.)

FIGURE 8. Common ligatures. (Space Grotesk)

2.3 Variables

In order to create consistency in a typeface, it's common to have similar elements repeated throughout (Henestrosa et al. 2017, 45). For example, the lowercase *o* can be used as a template for other rounded letters such as *b*, *c*, *d* and *e* (figure 9). This is helpful not only in creating a pleasing pattern of familiar forms, but might also make a typeface more readable (Sanocki & Dyson 2011). The appearance of these repeated shapes, or variables, can bring in style and personality to a font. By modifying them, a type designer is able to make their typefaces more dramatic, or understated, or even more modern. However, any slight change in the measure of one of these variables can also affect a typeface's consistency and function (Cheng 2005, 10). This sub-chapter will focus on two of these variables – serifs and x-height – by explaining their purpose and their effect on how a typeface is read.

FIGURE 9. Repeated variables in a font. (Didot)

2.3.1 Serifs

Serifs are lines extending from the ends of a character. Their appearance will often vary depending on when and how a typeface was designed (Strizver 2014, 40.) Typically, serifs will be divided into two styles: *adnate*, where they curve out of a shape more organically, and *abrupt*, with more rigid right angles (figure 10). Adnate serifs were particularly popular before the 18th century, with forms inspired by calligraphy. On the other hand, abrupt serifs seem almost placed on top of characters, with a more mechanical and mathematical quality. These were mostly used during the 18th and 19th century, when type designers and sign painters began treating serifs as ornamental elements separate from the characters they belong to (Willen & Strals 2009, 31.)

FIGURE 10. Left: Adnate serif, Baskerville. Right: Abrupt serif, Didot.

Typefaces all had serifs up until the 19th century, when sans serifs, meaning *without serifs*, were first commercialised. These new typefaces were initially labelled grotesque – a moniker still used today – but grew in popularity during the 20th century, with notable typefaces such as Futura and Helvetica still highly popular (Samara 2018, 31.) A common complaint of sans serifs is their imbalance, especially in relation to contrast. In type design, contrast is defined as the difference in thickness between vertical and horizontal strokes. A high contrast font will have both very thick and very thin lines, well as a low contrast font will tend to look more uniform (figure 11) (Cheng 2005, 11.) Serifs are particularly useful in grounding high contrast fonts, and evening out their shapes.

FIGURE 11. Top: Low contrast typeface, Avenir. Bottom: High contrast typeface, Didot.

Seriffed characters are often considered more legible. For example, in figure 12 below, a lowercase *i* is shown with and without serifs. Without serifs, and with no other characters around, it's impossible to tell whether its typeface has a high or low contrast. The serif in this case helps create a disparity in thickness, thus making it clear that the seriffed font has a high contrast. According to some, serifs can also help with readability by guiding the eye horizontally, and making spaces clearer. However, research has shown this to be mostly incorrect, with no real distinctions in readability found between a serif and a sans serif (Poole 2008.) According to Zuzana Licko, it might even be that what we read best is what we read most. This implies that type is most readable when it is familiar (VanderLans 1990.)

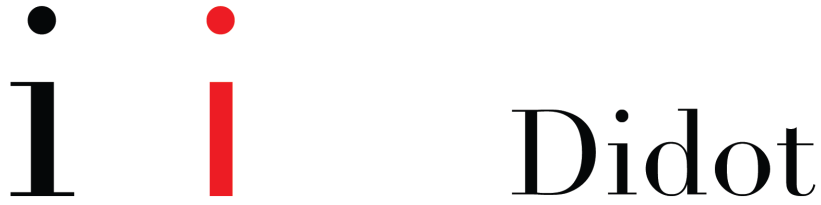

FIGURE 12. Character with and without serifs. (Didot)

As variables, serifs can be drawn in many different ways, as there are no specific rules about how wide or tall they should be. Slab serifs, for instance, often have exaggerated serifs to match their overstated shapes (figure 13). Originally designed for posters and advertisements of the Industrial age, slab serifs were meant to be loud and exciting, in order to grab any passerby's attention (Samara 2018, 29.) Nowadays, serifs are still commonly seen in new typefaces, but are considered less modern than the more innovative sans serifs. Instead, they

work best when used in formal contexts, such as in scientific papers (Kolenda 2016.) However, trends in type are always changing, with an increasing number of sans serifs now seen as institutional because of their association with road signs (Budelmann, Kim & Wozniak 2010, 46.)

FIGURE 13. Slab Serifs. (Rockwell and Solide Mirage)

2.3.2 x-Height

The lowercase height of a typeface, known as its x-height, is calculated by measuring the height of the lowercase *x* from the baseline, in relation to the height of the ascender (figure 14) (Lupton 2010, 39). A taller x-height, according to some, can help increase the readability of a typeface (Ambrose & Harris 2006, 150). Even with the same point size, the x-heights of two typefaces are likely to be different, based on their construction, personality and their intended use. Because of this, when placed together, a typeface with a taller x-height will often look much larger than one with a smaller x-height (figure 15) (Ambrose & Harris 2006, 61.)

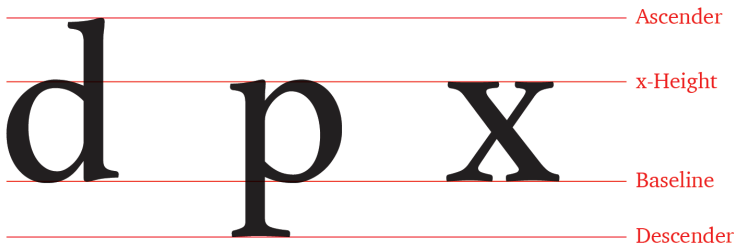

FIGURE 14. Top to bottom: Ascender, x-Height, Baseline and Descender. (Athelas)

Variables
Variables

FIGURE 15. Top: Tall x-height, Helvetica. Bottom: Short x-height, Baskerville. Both set at the same point size.

There are many reasons why x-heights might vary between typefaces. Often, this decision comes down to aesthetics, as there is no optimal x-height. A short x-height, for example, has the advantage of having long and obvious ascenders, which can help make characters clearer, and therefore more legible (figure 16). However, these typefaces will often require more line spacing in order for ascenders and descenders not to intersect (Linotype n.d.). This can be a problem for, say, a newspaper, where space has to be managed carefully.

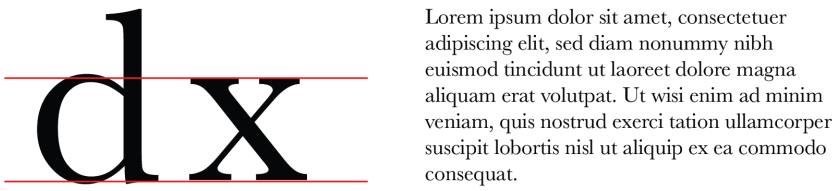

FIGURE 16. Low x-Height. (Baskerville)

A taller x-height, on the other hand, is often considered the better option for readability. Characters are easier to distinguish, and with the right spacing, can work well even at very small sizes (figure 17). Unfortunately, they also tend to lose some of their elegance if made larger, and thus might not be the right typefaces for headlines (Lupton 2010, 39.) Tall x-heights can also give the impression of characters stacked too close to one another, and if their ascenders are very low, it can be hard to distinguish between similar shapes, such as between letters *a* and *d* (Deer 2016, 159.)

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FIGURE 17. Tall x-Height. (Helvetica)

3 BRANDING TYPE

Branding is the process of building awareness and customer loyalty (Wheeler 2013, 6). It is what differentiates one product or company from another, through their name, packaging, and their identity or, in other words, their essence, meaning and direction. A strong brand will create a relationship with consumers, who are then often willing to pay a premium above the commodity value of a product or service (Gilbert 2003, 306.) This is done mostly through marketing and design, as the appearance of a brand should reflect its identity, and every one of its elements, from billboards to envelopes, should be consistent with the brand's message.

A brand's visual identity will typically consist of a logo, colour schemes and typography, as well as other branding elements such as patterns or textures. However, as market conditions change, brands will often have to update their products and appearance to fit with modern styles and trends. Typically, a rebranding will focus on the visual assets of a brand, as drastic changes in its personality may alienate loyal customers (Gilbert 2003, 239). A logo might be redrawn, or perhaps modified only in how it is presented – whether it is moved around, scaled or even rotated (Airey 2019, 7-9). For instance, picture 2 compares Paula Scher's identity for *The Public Theatre* in posters from 1995, on the left, and from 2019, on the right. In both cases, the brand's voice is exciting and loud, but adapted to its time. Notably, the logo itself is now set in a different typeface than in 1995, a subtle change meant to provide more structure as to how the brand is presented (figure 18) (Pentagram n.d.)

PICTURE 2. Posters for The Public Theatre (Pentagram).

FIGURE 18. Right: Original The Public Theatre logo, set in Morgan. Left: Logo changed in 2008, now set in Knockout (Pentagram).

There are many reasons why a brand would want to change the typeface used in their logo, or more broadly, the type used in all their communications. Typography plays an important part in branding, and the typefaces used by a company can affect how it is perceived. This chapter will cover brand typography in more detail, as well as the rise in custom typefaces, made exclusively for brands.

3.1 Corporate Typography

Besides colours and images, typography is one of the most effective methods a company has to communicate with its customers (Wheeler 2013, 154). This encompasses all the ways type is used and laid out, and in branding, refers to any written communication, such as on posters and advertisements, as well as websites and applications. The right corporate typeface will speak with the

brands voice, and reflect its identity (Maag 2018). It should also be flexible enough for different media, while also distinguishing itself from competitors.

In marketing, a brand's personality refers to human traits associated with a product, service or company. This is based on how the company sees itself, as well as how customers describe it (Gilbert 2003, 312). Similarly, typefaces are also often said to have personalities (Strizver 2014, 65). These will tend to be based on associations, such as where one might have seen this typeface or a similar one used before (Kolenda 2016). For this reason, it's common to see companies in the same sectors using similar typefaces, particularly in the fashion and luxury industry, which relies substantially on visuals and trends (figure 19)

FIGURE 19. New logos for Burberry and Balmain.

The logos above are the result of recent rebranding efforts from either companies. They are also part of a much wider trend in fashion, with several brands now adopting sans serif typefaces in their logos and campaigns, as opposed to their previous serif or calligraphic styles (figure 20). With this change, these brands aim to be more relatable, to substitute the ego of their high end images for something more utilitarian and minimal (Whelan 2019.) In essence, they are using typography to change how they are perceived.

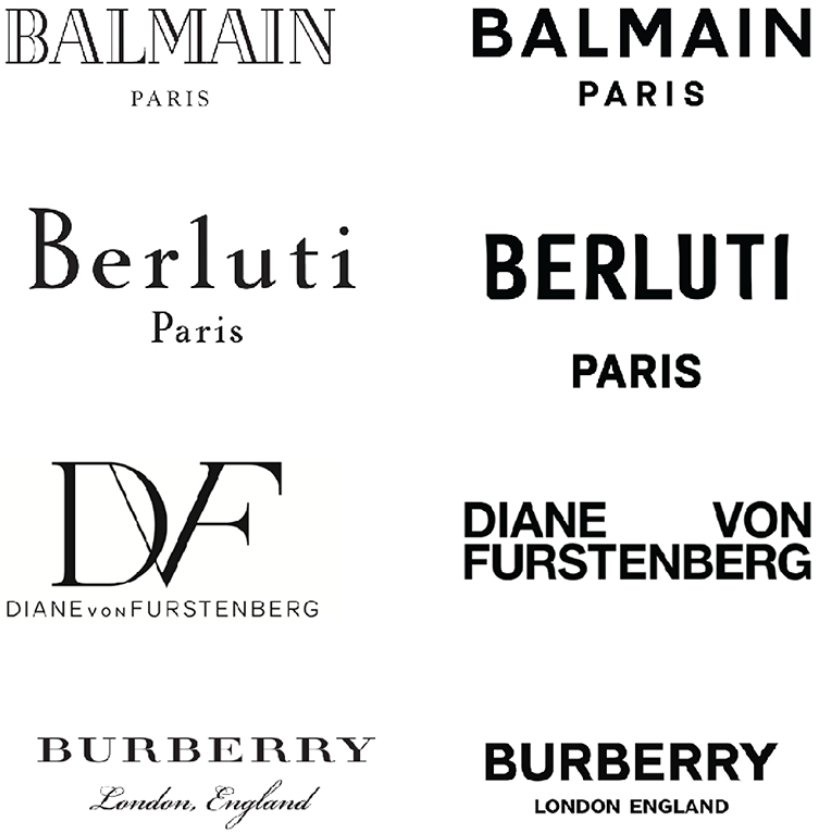


FIGURE 20. Fashion brands rebranding: Balmain in 2018, Berluti in 2018, Diane Von Furstenberg in 2017, and Burberry in 2018.

When logos are made out of text rather than images, they are technically known as wordmarks, or logotypes. Usually, typefaces used in wordmarks will have been modified in some way, or might even have been drawn from scratch (Wheeler 2013, 52.) Similarly to logos, wordmarks need to be memorable, and one that has been used for a long time can build a long-lasting relationship with customers (Haviv 2015). Canon's highly recognisable wordmark, for example, was originally designed in 1956 (figure 21) (Canon 2017).

FIGURE 21. Wordmark for Canon.

Wordmarks exist somewhere between type and illustration. Because of this, they do not necessarily abide by the same rules as typefaces, especially in terms of legibility and readability. It is common therefore for companies to use different typefaces for their wordmarks and their branding (Wheeler 2013, 52). Depending on their scale and communication style, some companies will also have other typefaces at their disposal meant, for instance, to differentiate between headlines and body text. According to their brand guidelines, the Red Cross, for example, uses Akzidenz Grotesk wherever information must be communicated, and Georgia for storytelling, opinions and calls to action (American Red Cross 2014).

3.2 Custom Fonts

For a company, a fully-featured and well-balanced typeface can be an expensive investment. Typefaces are typically acquired from type foundries, which gather together their own designs, or those made by others, to be licensed based on monthly usage or per number of users (Fontshop n.d.) For large companies, spread across several countries, licensing these typefaces can easily cost up to a million dollars a year (Czarnecki 2017). For this reason, more brands are now looking for alternatives to this licensing model. Some choose to use free, open-source typefaces, but which often lack in quality and flexibility, while others instead opt to commission fonts licensed exclusively to them, also known as custom fonts (Strizver 2014).

A custom font is one that is created for a client's specific needs. In most cases, these are completely original designs, but can also be modifications on existing typefaces (Haley n.d.) For example, simply narrowing the widths of characters in an existing typeface can mean less is spent on paper, ink and print times (Butler 2013). For companies, the flat fee of custom fonts is often more attractive than the repeated yearly license fees to type foundries. However, custom fonts can still be a relatively expensive investment, sometimes costing up to $150,000 for four weights of an original design (Divakaran 2018.)

With a custom font, a brand is able to distinguish itself from its competitors with branding unique to its identity. As seen in figure 22 below, many brands often use the same typefaces in their wordmarks, making it harder to separate one from the other. In this example, all three wordmarks are set in Helvetica, a classic sans serif known to project innovation and stability. Because of this, it has become, over the last half century, the typeface of choice for brands related to technology (Rose 2014.) This is perhaps why this sector in particular has been the most willing to adopt custom typefaces, with brands such as Apple, IBM and Intel all recently commissioning fonts to replace Helvetica as their corporate typeface.

FIGURE 22. Wordmarks set in Helvetica.

A brand aiming to stay consistent in its branding can benefit from owning a custom font. By having an exclusive license to their fonts, companies can easily share them to every employee, in every part of the world (Quito 2017.) Custom fonts can also solve design problems a company might be facing. When Apple realised that Helvetica became harder to read on the screen of the Apple Watch, they commissioned San Francisco, a typeface with curves less rounded than Helvetica's, and optimised for small screens (Stinson 2015.) When compared, as in figure 23, San Francisco has more spacing, a taller x-height and less detail than Helvetica, making it easier to distinguish letters from one another. San Francisco is also an example of a typeface made with digital technology in mind, especially when compared to Helvetica, which was designed for print in the late 1950s.

FIGURE 23. Top: Helvetica. Bottom: San Francisco.

Since they are tailor-made, custom fonts can also have more flexible options for a brand. Klim Type Foundry, for example, designed Paypal Sans for Paypal specifically with numbers in mind (figure 24). As Paypal users are constantly dealing with important payments, the legibility of these numbers was one of the main priorities of the company. Numbers, fractions and percentages were therefore made to fit into text in an unobtrusive way (Sowersby 2016.) Similarly, an international brand like Alibaba needed a typeface that would be as effective in all their worldwide territories. Alibaba Sans, designed by Monotype, supports 172 languages, and was also designed with a strong emphasis on numerals and currency symbols (Schwab 2019.)

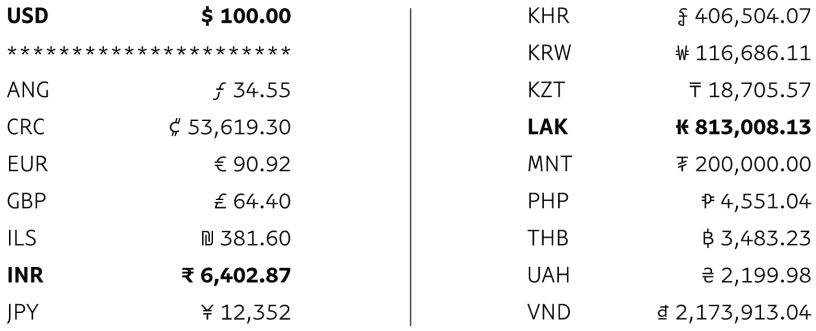


FIGURE 24. Numbers and characters set in Paypal Sans.

For a designer, the process of drawing up a custom font is similar to that of creating a brand's visual identity. A lot of data must be gathered, and the personality of the company determined (Divakaran 2018). In their design, custom fonts can integrate elements of this personality. If a brand sees itself as fun, perhaps it might want rounder, more open characters. For an already established company, researching previous corporate typefaces, as well as logos or wordmarks, might also help indicate how the brand sees itself. For instance, Netflix Sans, commissioned by Netflix, is directly influenced by their logo (figure 25). This can be seen mainly in the arched cut of the lowercase *t*. Moreover, the typeface is meant to have 'cinematic' uppercase proportions, in order to best fit in with the style of the company's streaming platform (Brewer 2018.)

FIGURE 25. Netflix Sans.

Like any other designed element, there are also ways a custom font can weaken a brand. The original Youtube Sans, designed for Youtube in 2017, was an unfortunate example of this. Instead of bringing in good press, it was repeatedly criticised by designers (Venkatesan 2018). Much of the conversation revolved around the use of the play button as inspiration for the typeface. Because of this, capital letters were cut at sharp angles and their height difference never resolved (Stössinger 2017.) As a brand element, it looked under-researched, and as a typeface, it felt forced and imbalanced. Interestingly, in 2019, Youtube released a new version of the typeface, with redrawn characters, also known as glyphs, and a much wider set of features, including a variable font (Salim 2019). This new Youtube Sans keeps the original sharp angles, but has taller and more balanced characters (figure 26).

FIGURE 26. Top: Youtube Sans, original. Bottom: Youtube Sans, reworked.

3.3 IBM Plex

In 2017, IBM unveiled its own custom typeface, IBM Plex (Quito 2017). This was particularly notable because IBM has had a long reputation for good corporate design (Quito 2016). In its microsite, the design of the typeface is explained

in detail, giving an insight into its inspirations and features (IBM Plex n.d.). IBM Plex, which comes in serif, sans serif, monospaced and condensed versions, was designed to solve some of the company's typographical issues. It is also one of the better examples of what a custom typeface should be, as it manages to work both as a typeface and as a representative element of the brand (figure 27).

FIGURE 27. IBM Plex Sans

Although it has gone through many reinventions, there have been two constants in IBM's history: innovation and design. More specifically, the company is well regarded for being a pioneer in the world of type, having helped popularise monospaced typefaces, like Courier, through its range of typewriters (Budds 2017.) However, even after having commissioned several typefaces for its products, the company still defaulted to using Helvetica Neue as its corporate typeface. With offices in over 170 countries, this meant licensing type was costing the company over a million dollars a year (Czarnecki 2017.) Furthermore, Helvetica was starting to look outdated, a symbol of company's past as a hardware seller, and not necessarily in line with its current focus on enterprise software (Quito 2017). A custom typeface, therefore, would update the company and save costs.

Designed in-house by Mike Abbink, IBM Plex was built around the concept of 'mankind and machine'. This is meant to represent the company's history, its products and even the architecture of its buildings. As a concept, it is a guide for what the company is, and what the typeface should be – organic and mechanical; classic and cutting-edge. The iconic IBM logo, designed by Paul Rand, was also used as inspiration, with its elements repeated onto Plex's characters, such

as in its serifs, its strokes and, in particular, its right-angled curves (figure 28) (IBM Plex n.d.)

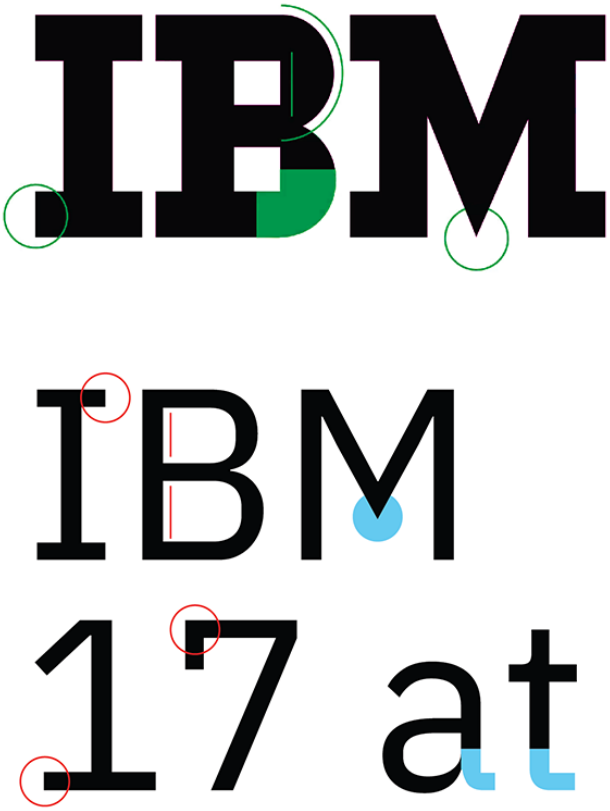
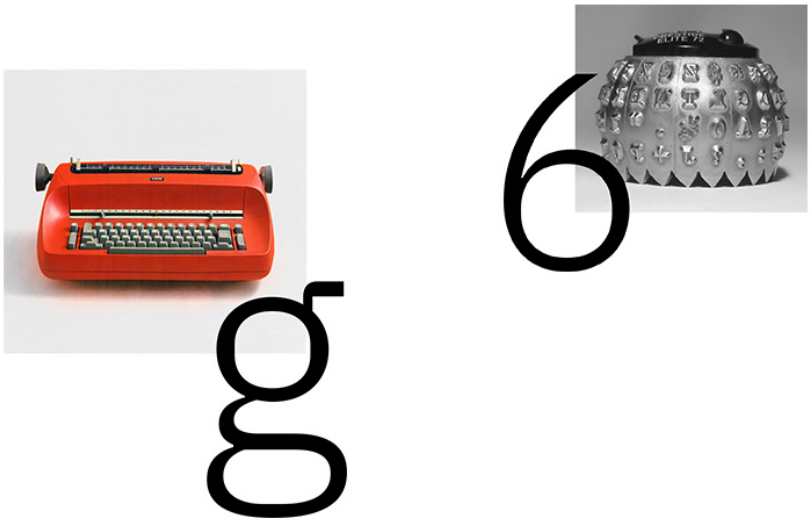


FIGURE 28. Elements taken from the IBM logo (top) into IBM Plex (bottom).

IBM Plex was built using several other typefaces as models. This included, of course, Helvetica, but also Franklin Gothic, a classic grotesque with low contrast, as well as Bodoni and Janson, especially in their serifs and terminals. The designers of IBM Plex also incorporated more literal representations of IBM's legacy within the typeface. For example, the sans serif lowercase *g* and number *6* have round forms traced directly from the company's popular Selectric typewriter (picture 3). This machine, one of IBM's most innovative, is also a major influence in the appearance of IBM Plex Mono, the monospaced version of the typeface (IBM Plex n.d.)



PICTURE 3. The Selectric typewriter's influence on IBM Plex (IBM Plex).

IBM Plex supports a hundred languages, and is meant to be used on IBM's website, applications, publications, marketing materials, advertisements, and more. Like Google before it, IBM opted to release the typeface for free, with an open source license. This makes it available to anyone worldwide – an advantage, considering IBM's 380,000 employees (Quito 2017.) With the typeface so easily accessible, every division of the company will be able to stay consistent in their appearance and communication. The open source license also means any other individual or company can use the typeface for their own projects. This works in favour of IBM Plex's goal to replace Helvetica as the go-to corporate typeface (Quito 2017).

4 CASE STUDY: OKRA

Because of their cost, custom typefaces tend to be made for larger and established companies. In a highly competitive market, it makes sense for a known brand to pay a premium for something unique and ownable. For a smaller and younger company however, a custom font can serve a different purpose. Instead of representing the brand as it is, it might instead represent the brand as it could be. This allows for more experimental or abstract designs, as type designers may have more freedom in terms of concepts and inspirations. However, in my research, I was not able to find many convincing examples of smaller companies investing into custom type.

For this thesis, I decided to create a custom font for a young, up-and-coming brand, Okra. A relatively small company set in Shanghai, Okra is owned and run by Julie Pang, who crafts handmade jewellery pieces which she sells online. I chose this brand initially because of its Instagram page, which collects carefully curated images for a clearly-defined client. I also found the jewellery pieces themselves intriguing, especially in their use of materials, as well in their shapes and construction. I knew that I could use this content as inspiration for a typeface, and potentially create something that would push the brand forward and give it an edge over similar companies. In this chapter, I explain the process that went into designing this typeface, as well as the concepts that inspired it.

4.1 Research

Typefaces serve different functions. Some work particularly well in headlines, well as others are better fitted for body text, set at smaller sizes. These will have different constructions, especially in their use of x-height and spacing (Henestrosa et al. 2017, 18-19). For a designer therefore, having as clear as possible an idea of what the final typeface will look like – and what it will do – is essential to saving time, and staying organised. The effort a designer puts into researching similar fonts, sketching out major type features and clearly defining where

and how a typeface will be used can often lead to better, more well-rounded results. This is an integral step in the creation of any typeface.

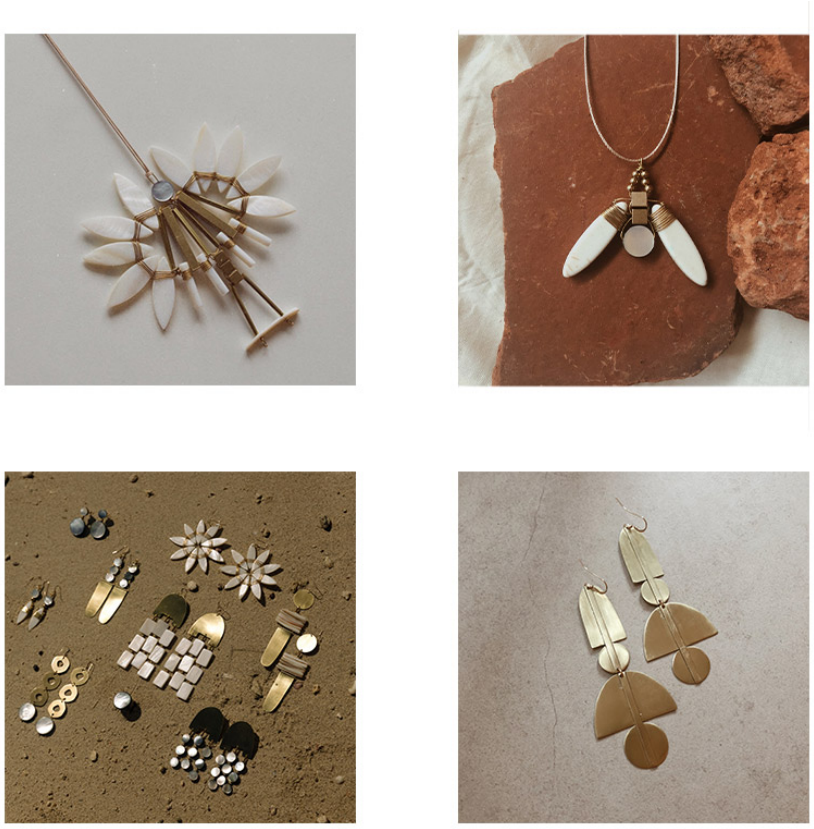
In branding, research is just as important. Designers need to understand the brand, know who it speaks to and how it is perceived. This is typically done through brand research, which collects data from within the company, as well as from its potential customers (Wheeler 2013, 116). Using this data, a brand's personality can be clearly defined, and eventually applied to logos, packaging, or to a custom font. Indeed, what mostly separates a typeface made for a company from any other typeface is this research. Custom fonts do not always need to incorporate literal elements of a company within them, but as branding elements, they should still speak with the company's voice, and match its personality.

4.1.1 Okra

Okra is a Shanghai-based jewellery company operating since 2014. Its designer, Mauritian-born Julie Pang, creates handmade pieces featuring organic materials such as coconut and seashell, as well as various crystals and stones. Through yearly collections, Okra explores themes revolving around the culture of Mauritius, as well as femininity and spirituality. On their website, Okra's client is described as an independent woman, a collector, in touch with nature and beauty (Okra n.d.)

The brand's collections usually consists of minimalistic pieces made up of various textures and materials, some of them more abstract than others. A favourite of mine is the *Sega Dance* earring, which mimics the flowing dresses worn by dancers of Sega, the national dance of Mauritius (picture 4). These sell for anything between $40 and $140. Although reasonably priced, many of Okra's pieces are sophisticated and unique. Their website compares these pieces to *objets d'art*, meaning art objects, or statement pieces (Okra n.d.) A few other products from the company are shown in picture 5 below (Instagram n.d.).

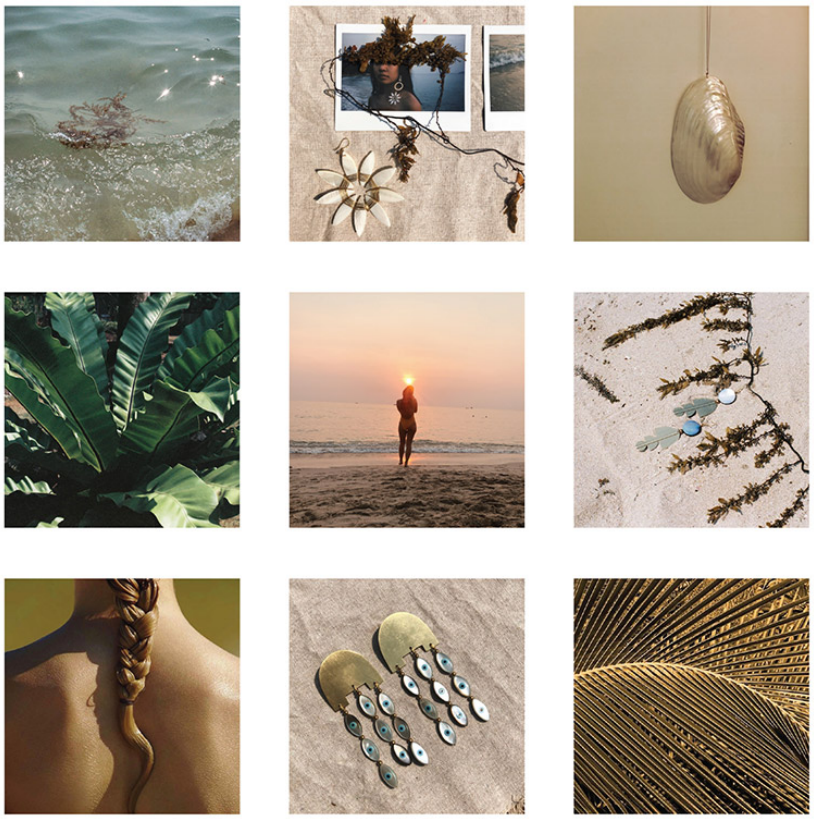
PICTURE 4. Left: Sega Dance earrings (Okra). Right: Sega Dancer (Sato).



PICTURE 5. Jewellery pieces by Okra.

The images above are all taken from Okra's Instagram page. The brand photography is, in my opinion, the company's best asset. The jewellery is well-framed, and every image is colour-corrected to fit in with the mood of the brand (picture 6). On Instagram, these visuals flow, with elements and colours repeated here and there. By also incorporating works by various artists in their timeline, Okra

is, in essence, creating a mood board for what the company is and who it appeals to. There is also a sense of earthiness to the feed, which corresponds perfectly with the jewellery. Women are portrayed wearing the pieces, in what are often very natural settings, with their hair loose and embodying a sense of lightness and freedom (Instagram n.d.)



PICTURE 6. Okra's Instagram page.

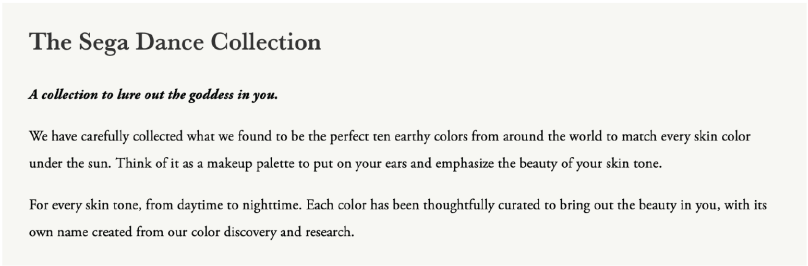
4.1.2 Concept

Using Okra as inspiration, I narrowed down my concept to two keywords: *water* and *symmetry*. Water here implies a flow, a wave, something powerful but also free – it is the connection to the island and to nature. Symmetry is what seems to guide much of the jewellery made by Okra – it is what links things to one another, and keeps them in balance. I felt both these concepts could be applied to a typeface. One gave me the ability to be more experimental, whereas the other

provided some boundaries, which I hoped would keep me from attempting too many ideas at once.

In order to narrow down a style for the typeface, I looked at the company's logo (figure 29). I found the characters interesting, if a bit disjointed. The *R*, for instance, is the only letter with a serif, and its diagonal is much thinner than that of the *A*. The *K* also has the same problem with the thickness of its strokes, but its construction feels organic, similarly to how the company's jewellery is put together. On the website, this logo is accompanied with text set in Times New Roman and Proxima Nova – typefaces with classic proportions (picture 7) (Okra n.d.). The effect is both timeless and sophisticated. However, as both these typefaces are system fonts, and thus available on most computers, they also unfortunately cheapen the company's branding. A custom font, therefore, would have to work as a replacement for the website's current typography.

FIGURE 29. Current Okra logo.



PICTURE 7. Typography on the Okra website.

Using the logo as inspiration, I decided to create a high contrast sans serif. My goal was for it to work in headlines, as a counterpart to Times New Roman. High contrast sans serifs tend to be notoriously imbalanced, but I wanted to use this quality to emphasise a sense of flow. I also decided to experiment with

character widths in order to create a wave-like effect, and also to incorporate literal waves into the typeface. For its contrast, I chose to use Didone typefaces as a reference, as I knew them to be particularly mechanical and symmetric (Cheng 2005, 14-15).

Sketching type can help guide the final product. Some prefer to sketch on paper, but I decided instead to draw out a few letters in a font editor, Glyphs, and test out their balance. As shown in figure 30, I experimented with curves in lowercase characters, and tried to incorporate a wave into their designs. I also modified widths and weights, and tried to determine how an extremely thin line could affect the characters' legibility. This was also an opportunity for me to familiarise myself with the software. In Glyphs, I analysed popular typefaces by narrowing down on their characters, while studying their shapes, ratios and general construction. This made it easier for me to move ahead with the typeface I planned on designing.

FIGURE 30. Digital sketching.

4.2 Design

Designing type requires more precision than when sketching it. On a computer, every glyph is technically a series of measurements, and a very slight modification in the angle of a curve can make or break a letter. A font editor will typically give a lot of control to its users, and shapes don't necessarily have to fit in specific patterns. Instead, these programs will encourage users to set up guides, for

example for what the x-height and other heights should be (Glyphs n.d.). Respecting these guides is up to the designer, and it is not uncommon for optically compensated characters to stretch out beyond these boundaries. Still, they can be particularly useful in keeping general dimensions consistent. Therefore, I set up these guides based on how I imagined the typeface to be. My idea was to create long and slender characters, so I chose a short x-height and tall ascenders and capital heights.

Although typefaces are typically started with lowercase characters, I instead decided to focus on uppercase characters first. I knew my time on this project would be limited, and if I was not able to complete an entire character set, I thought at least capital letters could still work in the headlines I envisioned this typeface for. However, because I still wanted these characters to look tall without lowercase characters next to them, I decided to make them narrower, as well as to move down the cross-bars, such as the one in the letter *A* (figure 31).

FIGURE 31. Letters and guides, with final characters in black.

Some letters can guide the design of other characters. The letter *O*, for instance, is the skeleton of every other rounded shape in a typeface. Because many of my letters were relatively narrow, I decided to make this *O* much larger, somewhat closer in shape to a circle than an oval, and reminiscent of a sun. Inside this *O*, I slightly slanted the counter to the left (figure 32). This slant, in type design, is called stress, and it is a common trait of oldstyle fonts (Cheng 2005, 10). By bringing in this classic feature to my typeface, I hoped to create a sense of contrast, as well as to break the mechanical pattern of every other character. I then applied this stress throughout the typeface, as seen in figure 33 below.

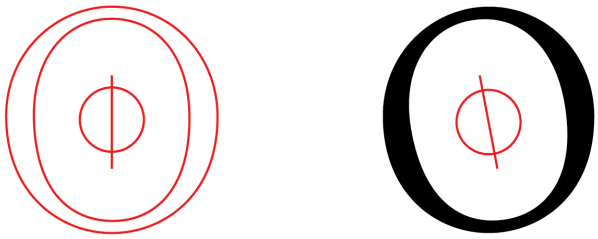


FIGURE 32. Stress.

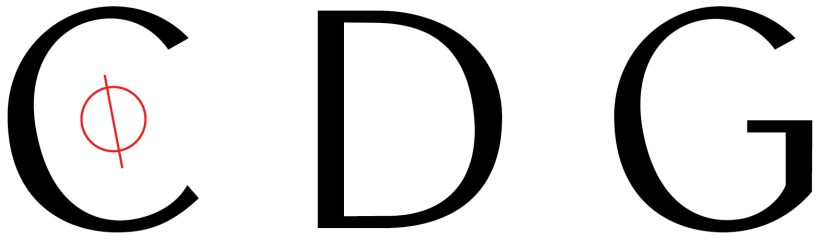


FIGURE 33. Repeating the stress in other letters.

Uppercase characters are made up of a few obvious shapes: circles, rectangles, and triangles. For this typeface, most of my time was spent on circles and triangles. I wanted these to communicate with each other, and to create a dynamically repetitive rhythm of wide and thin. Firstly, I decided to bring in the literal wave form into the letter *Q*, in a way that I hoped would not look like a gimmick (figure 34). I then spent several hours refining the tail of the *J*, initially trying to round it off but eventually deciding instead to make its curve wider. The letter *S* was also particularly time-consuming, as I tried over and over again to create a symmetrical yet organic shape. Eventually, I resolved this problem by placing the *C* next to the *S*, and using its curves and endings as a reference.

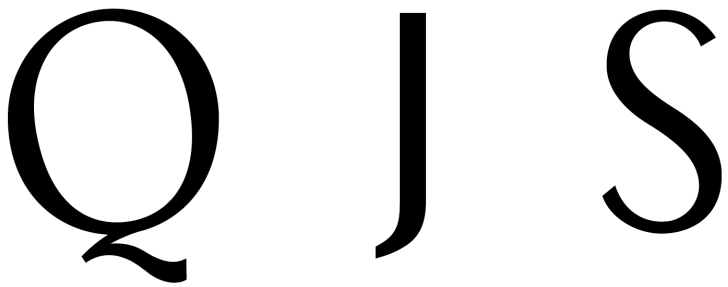


FIGURE 34. Letters Q, J and S.

Refining the angle of a curved shape is often frustrating. However, it was actually the triangular shapes that had me the most perplexed. The letters *W* and *K*, in particular, always seemed out of balance, and the angles of their lines never felt consistent with the rest of the typeface. Eventually, I decided to print out each letter, alone at first, and later in words and sentences. Here, I experimented with various sizes, and by placing the page both close and further away. Every modification I made required a new print, and it was only through this exercise that I was able to get a grasp on the typeface's balance. On the printed page, every irregularity felt accentuated, and clearly interrupted the flow of what I was reading. Using this method therefore, I finally was able to resolve letters *V*, then *W*, and ultimately, the letter *K* (figure 35).

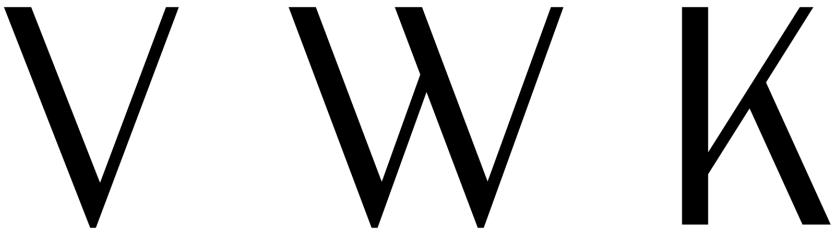


FIGURE 35. Letters V, W and K.

As I was designing these letters, I was also spacing them. I focused mostly on sidebearings, and only kerned characters once they had all been drawn. In font editors, the right and left sides of a letter can be linked to other letters, so that their spacing is repeated based on their outer shapes. In practice, this means the letter *D* would have on its left side the same spacing as the letters *H* or *L*, and on its right side that of the letter *O*. This is mostly effective, but still requires some slight modifications here and there. Eventually, I got to kerning, which often led me to rethink the design of several characters. Finding the optimal spacing between these letters sometimes meant I had to move letters one point to the left or right, to test them out in print, and repeat, several hours on end. Finally, I exported the typeface when I felt I reached a semblance of balance. I also experimented with lowercase characters and numbers, but eventually decided that, for now, this typeface, called Okra, would only have capitals and punctuation (figure 36).

FIGURE 36. Experiments with lowercase characters and numbers.

4.3 Presentation

With the typeface completed, I began testing it out in Adobe Illustrator to see how it fit into in a similar layout as that of Okra's Instagram. I chose some images from their feed, as well as key words and colours from their website, and created a series of visuals using the typeface. Some of these are displayed below, in figures 38 and 39.

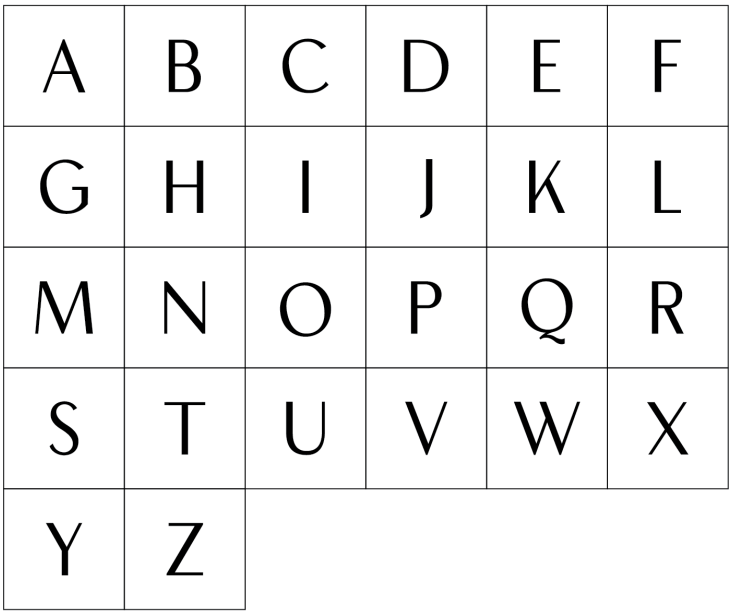


FIGURE 37. All uppercase letters.

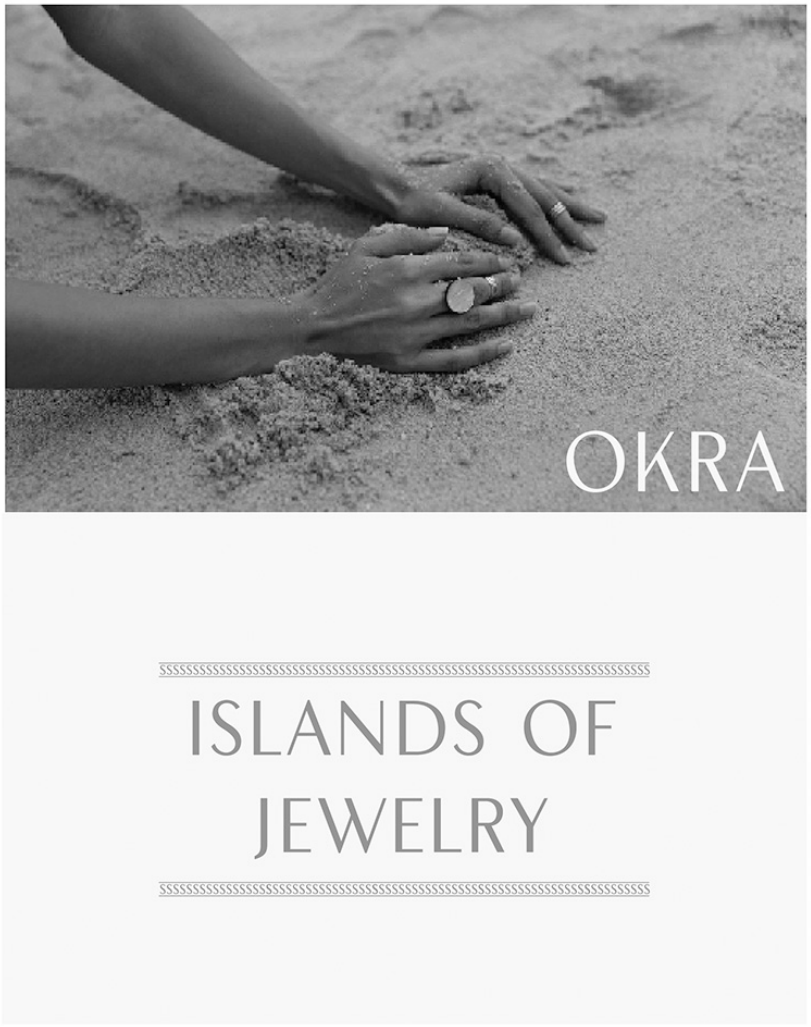


FIGURE 38. Layout with typeface.

FIGURE 39. Layout with typeface.

5 CONCLUSION

Good typefaces are legible and readable. Some also have unique design qualities, or manage to do what it is they were made to do in the best possible way. A typeface meant for article headlines, for instance, should be exciting enough for us to want to engage with its content, but without distracting from the body text. Using this logic, a typeface made for a brand should represent the brand and work within its universe, while also having the attributes usually associated with good fonts.

Okra, the typeface I designed, works better as a branding component than as a typeface. The main reason for this is, of course, its lack of characters. This restrains the scope of ways the typeface can be used, and therefore brings it closer to a derivative of a wordmark rather than a functional font. The spacing of the uppercase characters also often appears too tight, especially without lowercase characters to offset their balance. As a typeface therefore, it requires a few dozen more hours of work, with emphasis put into its diagonals and character widths, as well as expanding its character sets and weights.

However, as part of a brand's image, the typeface manages to communicate a sense of sophistication often associated with luxury brands. Its contrast makes it particularly effective when set at big sizes, but also renders it almost illegible at smaller sizes (figure 39). The overall idea I had of Okra, the brand, is translated into the typeface, which I believe makes it a perfect fit for the company's social media accounts, as well as its website. Although their feedback was positive, the company has yet to use the typeface, relying instead on its previously used typefaces. This is perhaps because this project was self-initiated, and not part of a broader effort at a rebranding.

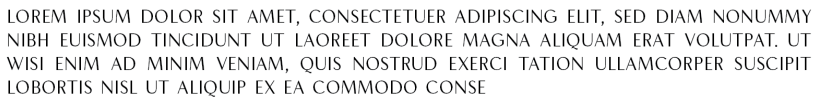


FIGURE 39. Okra typeface set at small size.

There are many different kinds of companies, and custom fonts are not necessarily of use to most of them. Licensing type for a small to medium company is often affordable, and open source fonts are often good enough. After all, the appearance of typefaces tend to be ignored by most people, which is usually a quality when it comes to communicating text. Furthermore, with companies rebranding more often these days, the longevity of custom fonts is also in question. Many of the examples featured in this thesis are sans serifs, but their ubiquity in branding has made them now a bit of a safe and predictable choice. In essence, what most of the companies have done is simply build their own models of Helvetica, without having to license it.

The best custom fonts, in my opinion, are not the ones that chase trends but instead exist to solve real problems within a company. Apple's San Francisco and IBM Plex are both examples of this, as digitally-optimised typefaces that were commissioned to unify their brands, and in the case of IBM, to lower real costs within the company. Of course, not every brand divulges so openly the purpose of their custom fonts, and with companies owning their logos and sometimes even the colours associated with their image, it makes sense for many of them to also want control over their typefaces.

Type is now easier than ever to design. This has encouraged a growing number of designers to study type design, and to release their own fonts. As this becomes widespread, it will be interesting to see if companies come to expect custom fonts in their visual identities. This could potentially expand the type design market, and eventually maybe affect the licensing models of font foundries. It could also lead to companies perhaps overlooking the many excellent typefaces already available online. Some of these, crafted several centuries ago, are loaded with history and attitude, and still highly relevant today.

Designing a custom font, like any other typeface, requires patience and precision. Even within the boundaries of a font, there is an infinite amount of ways a letter can be drawn. Each new character can potentially inspire an entirely new typeface. Still, it's an exciting endeavour, and in my experience, a particularly creative one. With Okra not using the typeface I designed, I am now able to

modify it, expand its character set, and rethink its concept. It might then one day be posted online, or sold to company.

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