CHAPTER II
LITERARY OVERVIEW

2.1 Graphic Design

The fundamentals of graphic design are outlined by Robin Landa in her book, Graphic Design Solutions. According to her (2013), graphic design is the communication of ideas, information, or messages through a visual medium, done by the manipulation of design's formal elements. She continues, design can be persuading, motivating, informative, and engaging, or it can serve a purpose, such as identification, organization, and behavioral modification.

2.1.1 Design Elements

Landa (2013) outlines design elements as the formative pieces and toolkits of two-dimensional design with specific functionality and strengths to be used by budding graphic designers.

1) Points and lines

A line, which in itself is made up of a series of dots, is considered to be the trajectory of a dot in motion. Its length defines it. The tools used to draw that line, be it a pencil, pen, or brush, give it quality (pg. 19-20). It serves several purposes, such as

a) Comprising a shape or image
b) Dividing areas and setting boundaries
c) Assisting in compositional organization
d) Delineating line of sight
e) Used extensively, defining a linear style

Figure 2.1. A Poster Comprised of Points and Lines
(Source: https://oniondesign.com.tw/weiwuyin-2016-program-guide/)

2) Shapes

A shape is a distinguishable area that is created by a closed line, color, or texture. Though flat in nature, a shape can be perceived as having qualities through the way it is rendered. Geometrically, all shapes are made out of either a square, triangle, or circle (pg. 20).

There are different types of them based on how they are drawn. There are those composed out of straight and angular lines such as geometric and rectilinear shapes. There are those with more organic and varied lines such as curvilinear and irregular shapes. Others are made without intent, such as accidental shapes. In regards to what object it represents, a straight adaptation is called figurative shape, while a stylized or deformed rendition is an abstract shape. Lastly, an arbitrary form that does not harken to existing objects is non-representational shape (pg. 21).

Figure 2.2. A Series of Geometric Shapes Made of Color and Lines
(Source: https://www.behance.net/gallery/45463013/BBC-Proms)

3) Figure/ground

To explain the study of shape further, there is the principle of figure/ground. Figure/ground is a principle defining the relationship between shapes that form positive and negative spaces. This works by relying on the mind's tendency to identify shapes as distinctly separate from their background. However, figure/ground takes into account the surrounding area of the object as a shape in and of itself, called negative space. To look at a design holistically, a designer must take into account both figure, or positive space, and ground, or negative space (pg. 21)

Figure 2.3. Usage of Figure/Ground in an Artwork
(Source: https://twitter.com/mikedotsullivan/status/1314642133479981059/photo/2)

4) Texture

Visual texture creates the illusion of tactility that is only found on physically rough surfaces. A variation of texture includes patterns, which is an area that is covered with a consistently repeated visual element. The formative elements of patterns are a dot and a line within a given grid. They can be used as an accenting part of a design or serve entirely on their own (pg. 28).

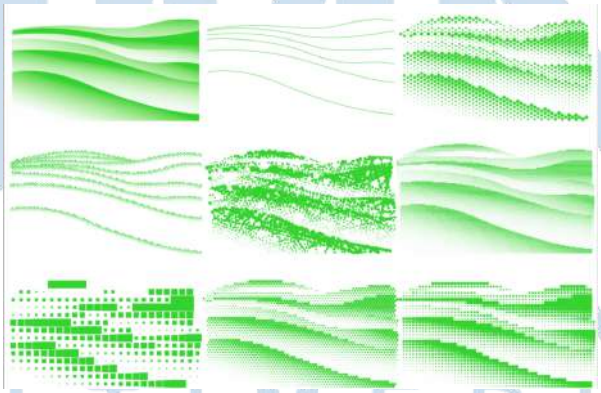

Figure 2.4 Repetition of Lines Creates Visual Illusion of Texture
(Source: https://www.behance.net/gallery/123737993/-18)

5) Color

Color is the result of the interaction of the human eye with light and its various properties. The light seen from real world objects is called reflected color, as their surface absorbs all other frequencies of light except the one reflected into the human eyeball. This property of absorbance and reflectance is determined by the chemical construction of their pigments. The light seen from digital screens are called additive colors, since they are reproductions of a color gamut done by a mixture of the basic red, green, and blue wavelengths (pg. 23).

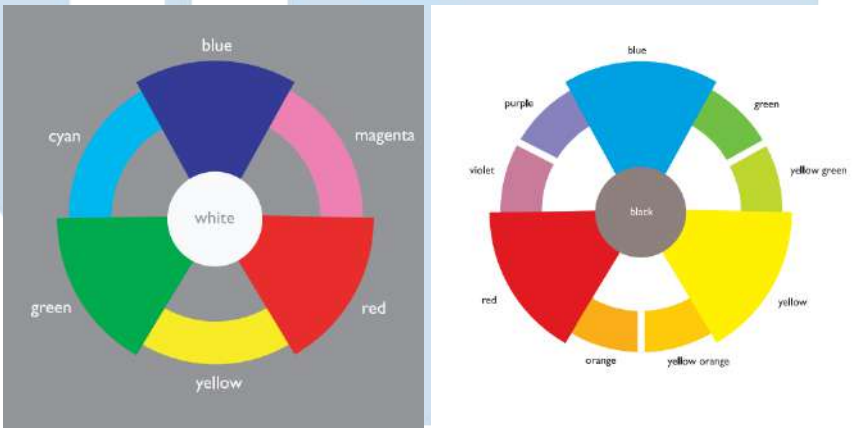

Figure 2.5. The Wheel of Additive and Subtractive Color
(Source: Landa, 2013)

These are the more elaborate nomenclature surrounding color:

a) Hue is the color's name that is determined by its pigment for reflected color or its specific wavelength mixture for additive color. They can be categorized as primary, secondary, and the less often tertiary colors. For additive color, the primary is red, green, and blue or RGB while for reflected or subtractive color it is red, yellow, and blue or RYB. These are colors that cannot be reproduced through mixture but can produce other hues (pg. 24).
b) Saturation is the purity and intensity of a certain hue that is managed through the mixture of more neutral colors. White, black, and gray dulls a color to varying degrees and has different

intended effects. A fully saturated design element demands attention in a composition and increases its emphasis (pg. 27).

c) Value is the luminance of a color that can be adjusted by using black and white to respectively decrease or increase its brightness within a composition. A mixture with black creates shades while mixing with white creates tints (pg. 26).

2.1.2 Color Philosophy

To better define the psychological effects of color, the writer looked to Sean Adams' The Designer's Dictionary of Color. Adams (2017, pg. 10-11) defined the relationship between color and the human psyche as something personal, emotional, and built over lifetimes of experiences and association through culture. A person's perception of color, therefore, can be a product of their memory and imagination that needs to be counteracted by logic-based argumentation and cultural studies.

1) Red

Red is a powerful, dominating, and intense color for designers. Its ties to blood can induce a feeling of danger, while its association with fire brings forth a sense of passion and fervor. The usage of red can immediately grab attention and bring contrast (pg. 83).

Figure 2.6. Usage of Red in Design
(Source: Adams, 2017)

There are a variety of meanings to be found in red. Chinese culture uses it as a symbol of good luck. Though not exactly similar, Indian brides are adorned with red saris during a wedding. Western culture views red in relation to its accompaniments. If used in conjunction with white and blue, it can bring a sense of patriotism. If used with black, however, it can be associated with fascism.

2) Orange

Orange shares the sense of passion and heat from red while embodying the joy and youth of yellow. In a positive light, it can bring forth a feeling of energy and immediacy. This is put to use by the fast-food industry to encourage an exciting but brief visit. Conversely, viewers can be appalled by orange's energetic nature (pg. 51).

Figure 2.7. Usage of Orange in Design
(Source: Adams, 2017)

Culturally, orange is the color of creativity in Eastern philosophy, as it is associated with the second chakra point. It is the color of Protestantism for Northern Irish folks. Accompanied by black, orange is the recognizable color of Halloween for North Americans.

3) Yellow

As a color, yellow can be used by designers to elicit a feeling of creativity, optimism, and joy. This cheerful quality transcends culture. It stands out when paired with other tones and can even be used in conjunction with the similarly bright white, given enough contrast (pg. 109).

Figure 2.8. Usage of Yellow in Design
(Source: Adams, 2017)

There are more regional meanings of yellow. For the Japanese, it is a courageous color. For the Chinese, it was a color exclusive to emperors. For the Jewish, it was a means of identification, first during the Middle Ages and again during the Nazi occupation.

4) Green

For designers, green can tame the bolder colors of red, orange, and the like. However, green in itself is a color that carries many meanings. Viewed virtuously, it can mean health and nature. Contrasting that, it is also the color of sickness and rot. Before the rise of organic products, the use of green in food packaging was frowned upon (pg. 147).

Figure 2.9. Usage of Green in Design
(Source: Adams, 2017)

This color, composed of yellow and blue, is globally associated with money and the environment. It is also universally understood to mean 'go' in traffic lights. Through Western eyes, green is heavily associated with Ireland and Saint Patrick's Day. By easterners, it is the color that communicates fertility and regeneration.

5) Blue

Blue is a ubiquitous color in graphic design. Alluded by Adams, there is a tendency for clients to want a blue logo to portray themselves as stable, strong, loyal, and honest. This is especially prevalent in the financial sector. It can be unstimulating for viewers due to its overuse. Therefore, to get the most mileage out of blue, a designer must use it in dramatic and unexpected ways (pg. 129).

Figure 2.10. Usage of Blue in Design
(Source: Adams, 2017)

In terms of meaning, blue is used in contrast to pink to denote masculinity and femininity. Western culture calls those of royal heritage 'blue-blooded.' In the eyes of religion, Judaism uses blue as a color of divinity, while Hinduism associates it with Krishna.

6) Purple

Purple has a polarizing nature because of its prolific use by aristocrats and in religious practices. Due to that, it is intensely tied to a sense of royalty and spirituality. On its own, it can elicit a calmer response if it contains more blue and a more intense one if tinted more red. An equal mix is not recommended, as it has a tendency to be bland (pg. 75).

Figure 2.11. Usage of Purple in Design
(Source: Adams, 2017)

This association purple has with spirits and elitism extends to multiple cultures. Widows wear purple as a symbol of mourning in Thailand. For a select group of Native American tribesmen, it is the color of wisdom. Broadly, westerners view purple as a symbol of wealth. The Roman Empire took this a step further. Emperors of old prohibited anyone else to wear purple, a law punishable by death.

7) Black

For designers, there is power to be found in black. It brings weight and confidence, especially juxtaposed with other colors. Black also adds a sense of boldness and maturity to any given work. However, these attributes are double-edged. Used poorly, it can be oppressive which may not be the desired outcome (pg. 199).

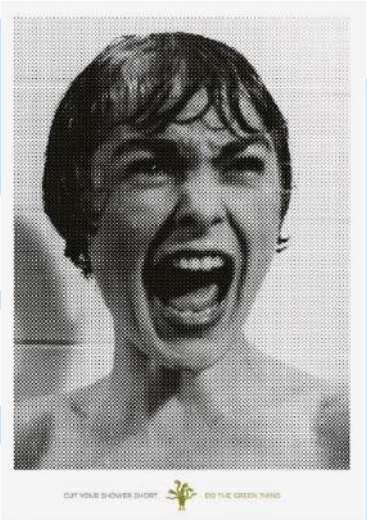

Figure 2.12. Usage of Black in Design
(Source: Adams, 2017)

In modern times, black is death and intrigue. This was first traced back to the Romans. Black was linked to secrecy by medieval westerners. However, it was viewed much more favorably by Ancient Egyptians. It was the color of Anubis, protector of dead souls. Easterners, specifically Hindus, used black to represent time and change that was governed by the goddess Kali.

8) White

White can be erroneously understood as the absence of content. However, it is valuable for designers as a tool for communication. It can provide clarity in oft crowded visuals and gives the viewer's eyes a place of respite so they may understand what they are seeing. Also, pure white can also be tinted to elicit different emotions (pg. 227).

Figure 2.13. Usage of White in Design
(Source: Adams, 2017)

White can be viewed as pure, innocent, and clean for westerners. The use of white roses to celebrate marriage is one such example. In comparison, easterners may view it as a sign of mourning and a person's passing, such as in Japan.

2.1.3 Design Principles

As described by Landa (2013, pg. 29), design principles are the basic interdependent tenets a budding designer must be mindful of in order to create a coherent, stable-feeling, and communicative work of design. They are applied in conjunction with the basic understanding of concepts, images, typography, and graphical elements to create a design vocabulary.

1) Format

The format of a medium is an important precursor to understanding design principles. It is the physical boundaries that a work of design exists in which the designer must cater to. The edges of the medium must be adhered to and taken into consideration when organizing elements. Common examples are the square CD cover, a folded brochure, and the rectangular magazine spread (pg. 29).

2) Balance

To achieve balance in a given piece of design, there must be equal distribution of elements on either side of the composition in accordance with their visual weight. When harmonious balance is achieved, the viewer will feel a sense of stability which they tend to appreciate (pg. 30).

Figure 2.14. Asymmetric Balance Between Text and Image
(Source:https://i.pinimg.com/originals/36/0a/40/360a40a449b1d2fed68c1ceb1be0be81.png)

The management of compositional balance is tied to the positioning of visual weight. Visual weight is determined by how much a given element attracts the eye due to its perceived importance. Factors such as the way it is rendered and its placement play a part in determining the visual weight and the overall balance of the entire composition.

a) Symmetry, a way of achieving balance through the exact mirroring of elements, as if to divide the composition in half with one side reflecting the other, thus creating a harmonious and stable work of design.
b) Asymmetry, a type of balance not gained by mirroring, but counterweighting an element on one side with another of a different kind of heft. Therefore, every factor of visual weight

on each element is to be considered as it has a role in balancing the whole composition.

c) Radial balance, which is akin to symmetry but done by mirroring elements on both the horizontal and vertical axes, making it seem as if they are radiating from the center.

3) Hierarchy

Hierarchy is integral to visual communication as it guides the viewer's eye through the organization of information, making it easier to digest what's being said. This is done through emphasis, the stressing of certain elements to make one more important than the other. This must be done selectively, as equal emphasis on everything creates visual chaos. The ordering of elements is done by first determining what is most important, that is the focal point, then giving subsequently less emphasis (pg. 33).

Figure 2.15. Example of Emphasis Through Isolation
(Source: https://www.designspiration.com/save/1845619469549/)

There are a variety of ways to establish emphasis (pg. 34-35), such as

a) Through isolation, separating one element from the collective thereby making it stand out, increasing its visual weight.

b) Through placement, attracting the viewer's eye by placing an element in an area of interest, such as the top-left or center.
c) Through scale, altering the size of an element in relation to others, making it appear to emerge or recede from the page.
d) Through contrast, making one element be the opposite of another, be it by texture, value, or color.
e) Through direction and pointer in the form of arrows or diagonals.
f) Through diagrammatic structures such as those akin to a tree, a nested object, or a stairway.

4) Rhythm

Borrowed from other art forms such as dance and music, rhythm on a visual medium is achieved by consistently repeating an element across a set interval of page, distance, or time, creating a sense of coherence. Equally as important is the adding of a little variation to create interest and surprise the viewer (pg. 35).

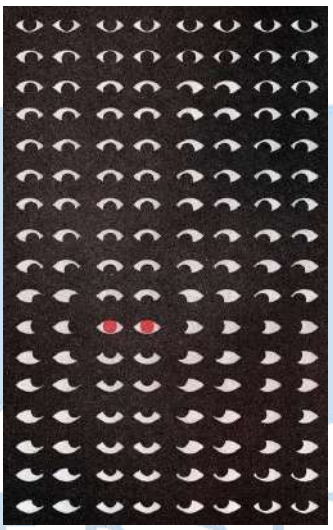

Figure 2.16. Example of Rhythm in A Poster
(Source:https://machinatorium.wordpress.com/2019/03/19/1336-eyes/)

5) Unity

In graphic design, unity is the interconnection between elements so that it is perceived as one unified whole. For the viewer, this makes all the working elements seem as if they belong and makes the composition more understandable. This is in accordance with the tendency for the human mind to create order and unify an experience in a way that is more coherent and regular (pg. 36).

Figure 2.17. Example of Unity in A Poster
(Source: https://www.behance.net/gallery/8637111/Massacred-in-the-Name-of-Greed/)

6) Scale

The scale of a graphical element is understood best when comparing the size of each disparate object. This applies doubly to real-world, recognizable objects such as the scale of an apple to a building. A surreal effect can be achieved when designers play with a viewer's understanding of objects in the natural world. Nevertheless, scale is crucial in creating variation, dynamic relations between forms, contrast, and a sense of three-dimensionality (pg. 39).

Figure 2.18. Example of Scale in Design
(Source:http://wearemucho.com/project/telerama/)

7) Law of perceptual organization

These are some of the pointers on how to create the illusion of organization and grouping within a composition (pg. 36).

a) Similarity. The grouping of elements based on a shared likeness.
b) Proximity. Decreasing the space between elements makes it seem like they belong in a singular group.
c) Continuity. Ordering elements to make them appear as if one continues the path of the other.
d) Closure. Composing elements to aid the mind in connecting and completing them as one unified shape.
e) Common fate. Angling objects in one collective direction, making them appear as one whole.
f) Continuing line. Implying the existence of a line by ordering elements in the same path.

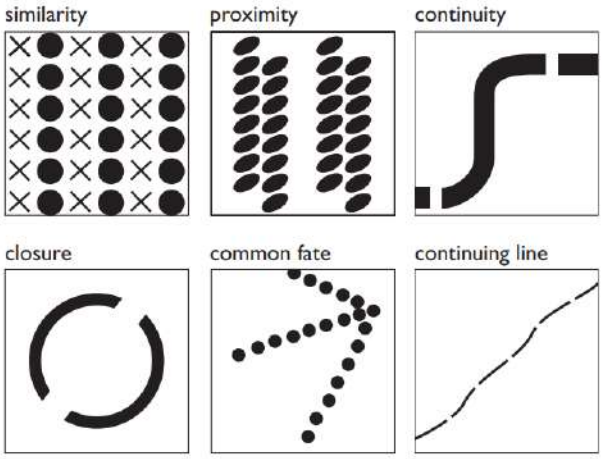

Figure 2.19. Illustrating The Law of Perceptual Organization
(Source: Landa, 2013)

2.1.4 Composition

Composition is the arrangement and structuring of design's formative elements in order to create an expressive, interesting, and compelling work of visual communication. A well composed design creates an attractive image which holds the audience's attention long enough so that they would want to decipher its meaning (pg. 143).

Another component of composition is arrangement, which is the guiding of the viewer's eye across the layout with the help of an entry point. This becomes the first thing the viewer sees and eases them into navigating the entire page (pg. 160).

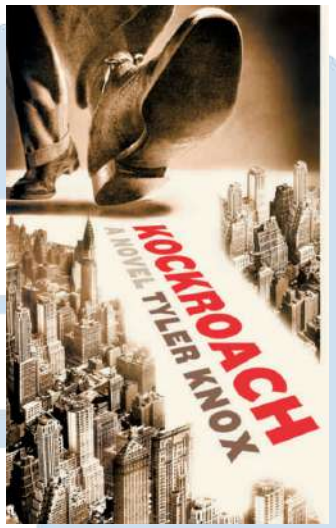

Figure 2.20. Example of Composition and Arrangement
(Source: Landa, 2013)

2.1.5 Grid

In this subsection, the writer added Timothy Samara's Making and Breaking the Grid as supplemental knowledge. According to Samara (2017, pg. 20) a grid is the rules of alignment within a format that governs the relationship between elements to serve a singular purpose, that is to help navigate the viewer's eye across the page. The interaction possibilities between type and image are what determines which grid is to be used.

2.1.5.1 Grid Anatomy

Samara (pg. 23) explained he structural components of a grid as such

a) Margins, the borders outside of the grid that acts as boundaries and negative space for the contents. Its size directly affects the tension within the layout. They can act as a respite for the eyes.
b) Flowlines, the imaginary horizontal lines that separate the composition and guide the flow of content like text and images.
c) Columns, vertical dividers which create a grouping within the grid. The number and width are pliable to the designer's needs.
d) Modules, a series of regularly-spaced boxes repeated both horizontally and vertically to create rows and columns.

e) Spatial zones, a space made of grouped-together modules with a specified role in the composition.

f) Markers, a consistently placed text that indicates where a given page is within the whole.

2.1.5.2 Grid Systems

1) Manuscript grid

The manuscript grid consists of one elongated block on either side of the spread, into which a continuous series of text is inserted. On occasion, a picture can be situated into that space as a counterbalance. The ample room within the margin can be used in sparring amounts, such as for descriptions or the occasional note. Its prolific use in the writing of manuscripts, hence the name, evokes a feeling of formality that may or may not suit the needs of a project (pg. 24).

Figure 2.21. Example of Manuscript Grid
Source: http://buero146.ch/wp-content/uploads/2017/04/146_web_REN_04.jpg

2) Multicolumn grid

Multi-column grid is beneficial for its flexibility in organizing discontinuous or disparate groups of information. Different columns can be used for different purposes, such as to hold a long line of text or images. The occupation of width may be consistent, but the height and tallness of content is more freeing. The usage of flowlines is optional, as it is only used if the designer needs horizontal alignment (pg. 26).

Figure 2.22. Example of Multi-column Grid
Source: https://www.behance.net/gallery/85335181/Kunstmuseum-Bern?tracking_source=curated_galleries

3) Modular grid

The modular grid is useful for highly complex projects, filled with many types of information groups. It is divided by columns and rows, creating modules that may be grouped together for specific purposes. The amount of division must strive for flexibility without becoming unnecessary. This type of grid is commonly used by the rationalist Bauhaus movement and those who follow in their footsteps (pg. 28).

Figure 2.23. Example of Modular Grid
Source: https://www.itsnicethat.com/articles/studio-sarp-sozdinler

4) Hierarchical grid

Hierarchical grids are comparatively more bespoke, intuitively organized to the needs of the project. Rather than being made of consistently-spaced modules, it is more organic in its approach with less-than-regular widths and heights to suit the context of the information. This malleable nature still results in an organized and clear relationship between elements (pg. 30).

Figure 2.24. Example of Hierarchical Grid
Source: https://dribbble.com/stories/2020/02/05/asymmetrical-layouts-ui-design

5) Compound grid

The use, and sometimes merging, of more than one grid creates a compound grid. The first use case is to use them interchangeably corresponding to the content they are made to organize. The second involves overlaying one grid atop the other, within a single page, with disregard to their internal alignment. The third is to use them simultaneously but to organize different elements within one page (pg. 32).

Figure 2.25. Example of Compound Grid
Source: https://www.designmadeingermany.de/2013/wp-content/uploads/2016/04/a3b0eff408a45ddece9c6efc7a0e87fe-1200x899.jpg

2.2 Brand

To define what a brand is and its subsequent disciplines, the writer followed the writings of Alina Wheeler in her book Designing Brand Identity. According to her (Wheeler, 2012), a brand is how a company portrays itself to its customer as a unique entity with a distinct personality. This allows them to form bonds of trust, emotion, and belief with the entity. As such, a strong brand cannot be replaced and can be the determinant of a company's success.

2.2.1 Branding

Branding is the expression of an entity's unique attributes in order to entice consumers to choose them over competitors, raise awareness, and foster longer lasting loyalty within buyers. It is a holistic process involving mandates from company leaders and extends to every employee (pg. 6). There are many kinds of branding, such as

a) Co-branding, the result of a partnership between two brand to extend their collective reach
b) Digital branding, the utilization of digital-first mediums such as social media, SEO, and websites
c) Personal branding, the reputation that is built surrounding a singular individual

d) Cause branding, the result of a brand involving itself with a noble cause or their own CSR endeavor
e) Country branding, the efforts of a nation in order to bolster tourism and engage businesses

2.2.2 Rebranding

Alina Wheeler (pg. 7) outlined these six conditions that are to be amended through rebranding, that is

a) When a company is in the process of launching a new product, or when they are themselves new to the market
b) When a company is experiencing issues with their current name, whether from a negative cultural context, trademark issues, or a change in their internal values that are no longer represented
c) When a company needs to be revitalized because of consumers misunderstanding who they are or not knowing them at all, or internal reasons like repositioning and a new target market.
d) When a company needs to be revitalized because ineffective brand identity that needs improvement or a failure to be portrayed as equal to their competitors
e) When a company has an inconsistent identity that requires a restructured system to unify each division's design output
f) When a company merges and needs to clarify to consumers who they are and why the merger represents for the coming future

2.2.3 Brand Identity

Brand identity is the unification of what a brand represents into a system. Through establishing an identity, a brand can become more recognizable, differentiated, and understandable as something uniquely apart from its competitors. Moira Cullen (in Wheeler, 2012, pg. 4) expands upon this by outlining design's role as a tool to communicate the intangible values that have become vastly important for consumers. These are the components of a brand identity:

1) Logo or brandmarks

According to Joel Katz (in Wheeler, 2012, pg. 48), a brandmark is a symbol that visually embodies the solution to the consumer's desires, told within the lens of the company's positioning and goals. This, in turn, bridges the gap between consumer and company.

What results from the composition of brand name, mark, and tagline, is referred to as a signature. A signature can be composed of all three elements or a combination of a couple, depending on the application. Though the function of categorization is dubious, these are the general types of brandmarks.

a) Wordmarks, a brandmark in the form of the company name set in a legible and distinctive font. This can be amplified by using abstract flourishes akin to those in pictorial marks (p. 52).

Figure 2.26. Example of Wordmarks
(Source: Wheeler, 2012)

b) Letterforms, a brandmark in the form of a highly stylized letter that are imbued with significance and meaning. It is also a favorite to be used in app icons (p. 54).

Figure 2.27. Example of Letterforms
(Source: Wheeler, 2012)

c) Pictorial marks, a brandmark formed out of a recognizable object that has symbolic meaning for the company. Said object could be stylized or simplified to suit the brand (p. 56).

Figure 2.28. Example of Pictorial Marks
(Source: Wheeler, 2012)

d) Abstract marks, a brandmark that uses abstract forms that are purposely ambiguous by nature. This type can suit brands with many diverse business sectors and its ambiguity makes it more resilient to real-world changes (p. 58).

Figure 2.29. Example of Abstract Marks
(Source: Wheeler, 2012)

e) Emblems, a brandmark that is contained in one unified shape and therefore cannot be separated from each other. It is also the most challenging to adapt into a mobile-first environment due to legibility issues (p. 60).

Figure 2.30. Example of Emblems
(Source: Wheeler, 2012)

f) Dynamic marks, a creative and modular type of brandmark that can express a more complex and diverse set of ideas instead of relying on the repetition of one mark (p. 62).

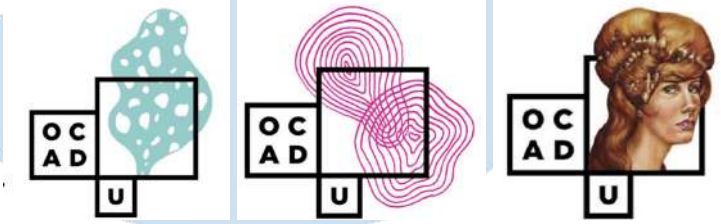

Figure 2.31. Example of Dynamic Marks
(Source: Wheeler, 2012)

2) Brand name

The qualities of a good brand name is that it is memorable, easy to pronounce, has a rhythmic sound to it, and can be rendered well in the form of a logo or a simple written text. It should also be legally ownable, modular, and be of service well into the future (pg. 22-23). There are the following types of brand names

a) Founder, as it is named after the person who founded it, making it more easily trademarked, though also inseparable from the image of that individual.
b) Descriptive, as it describes the company's function and intent. It can also limit growth and box the brand in from diversification.

c) Fabricated, as it is a made-up word. This eases copyrighting but requires effort to educate and familiarize it to the audience.
d) Metaphorical, as it alludes to another word to indicate quality, such as from mythology or foreign language.
e) Acronyms, as it shortens the brand name. However, it presents difficulty in copyrighting and memorability, requiring extensive effort to familiarize customers with the abbreviation.
f) Magic spells, as it takes a regular word but changes its spelling to create a more distinctive and ownable name.
g) Combinations, as it does away with classification and merges attributes from the aforementioned types.

3) Tagline

Taglines are short and concise sentences that contain within them what makes a certain brand unique and different from competitors. It is born out of the distillation of what the brand's personality is, what their essence are, and where they position themselves. They are not as everlasting as logos and need consistent usage to stay alive. In addition, a tagline should be unique, memorable, trademarkable, not be misunderstood as negative, and elicit emotion out of consumers (pg. 24-25).

4) Collateral

Collateral design is the application of visual identity to tangible mediums that the consumer interacts with. Through it, consumers can gain convenient and necessary information at the most opportune time. Through it, a brand can be more easily recognizable and appear to be more in touch with consumer needs. An effective collateral system should value flexibility, reproducibility, and being appropriately informative (pg. 174).

Figure 2.32. Example of Collateral Design
(Source: Wheeler, 2012)

5) Look and Feel

Look and feel is the unified visual language within a brand identity, such that each element is consistently applied and contributes to the overall cohesiveness of the whole. It is done through the consistent use of typography, treatment of images, application of color, and layout of composition. It becomes a tool with which brand strategy can be implemented (pg. 148).

Figure 2.33. Example of Consistent Look and Feel
(Source: Wheeler, 2012)

2.2.4 Brand Management

The writer elected to supplement Alina Wheeler's writing with the work of Kevin-Lane Keller in his book, Strategic Brand Management. To

Keller (2012, pg. 58-59), to manage a brand strategically is to manage and continuously build its equity through the usage of marketing activities. It is done in four steps; the creation of a brand planning, implementation of marketing activities, measurement of its performance, and the growth of brand equity.

2.2.4.1 Brand Strategy

Brand strategy is the aligning idea which governs how a brand behaves, whether through their products or marketing efforts. It is born from the understanding of company values and consumer needs, thus giving voice to a brand's differentiating factor and unique proposition. Through brand strategy, a brand can have a clearer voice in marketing and empower their employees (Wheeler, 2012, pg. 13).

2.2.4.2 Brand Equity

Keller (2012, pg. 69) defined brand equity, specifically the consumer-based ones, is the concept of how a brand exists in the minds of consumers through the association they've built surrounding the entity. It is a byproduct of their experience engaging with the brand throughout a span of time. A good brand equity can be formed when the consumer is highly aware of the brand, intimately familiar with it, and strongly associates it with favorable and unique attributes.

2.2.4.3 Brand Awareness

Brand awareness is the increasing of consumer familiarity through repetition and prolonged exposure. The more frequent and intense a consumer's experience with a brand is, such as with elements of their identity, the more aware and familiar the consumer becomes. To do so appropriately would also lead the brand to be more associated with a desired context (pg. 75). These are the types of brand awareness that exists (pg. 73-74), that is

a) Brand recognition, or the ability for consumers, when given a visual cue, to recognize a brand and remember past experiences

with it. It is valuable for brands that rely on consumers making their decision on the point-of-purchase.

b) Brand recall, or the ability for consumers to remember a brand when prompted about a product category or a specific need the brand fulfills. For online-centric entities, brand recall is crucial as they need to actively search for it first to engage with the brand.

2.2.4.4 Brand Image

Brand image is the sum result of the many associations consumers do in their minds when remembering a brand. The totality of all the association process creates what a brand means to their consumers. To aid in that, brands must employ marketing activations to ensure they are being attached to favorable and positive values by the consumers. The creation of brand image aided by visual and tactile descriptors is what Keller called brand attributes, whereas the creation through personal values imbued by consumers is brand benefits (pg. 77).

2.2.4.5 Brand Positioning

Brand positioning is about finding the most appropriate way to frame a company in the consumer to maximize on its potential and make sure they perceive the brand in the desired context. To decide the positioning, a brand must recognize which group of consumers they are targeting, identify their primary competitor, then define what similarities and differences they have with the brand (pg. 79). To elaborate further:

a) Point-of-difference (PODs) is the positive and differentiating associations a consumer has towards a brand and sets them apart from competing alternatives. This can be the result of functionally more performant products or created out of associations with intangible imagery (pg. 83).

b) Point-of-parity (POPs) is the aspects shared between brands within the same category. They make a brand appear as equal to their peers and accentuate its PODs (pg. 84).

2.2.4.6 Brand Mantra

Often called brand essence or brand promise, a brand mantra is the irrefutable and fundamental beliefs of a brand condensed into a phrase no longer than five words. They guide a brand's every action, filter out any inappropriate ideas, and help maintain a consistent image (pg. 93). Though not always in a format, these are the common structures that make a good brand mantra (pg. 95-96):

a) Brand functions, what benefits a consumer gains from a brand
b) Descriptive modifiers, what specific type of function it provides
c) Emotional modifiers, how a brand sets out to achieve in satisfying the consumers

2.2.4.7 Brand Architecture

To close this section, Wheeler (2012, pg. 20-21) defined brand architecture as the hierarchical relationship a brand has with its subsidiaries and divisions. It is important to be mindful of this to ensure consistency across their shared identity. These are the types of brand architecture, that is

a) Monolithic brand architecture, a type of structure wherein the master brand is primarily recognized. As such, consumers engage with their brand extensions mainly based on the promise of the master brand.
b) Endorsed brand architecture, a type of brand architecture wherein the products themselves have their own distinct presence, but further benefits from association with the parent.
c) Pluralistic brand architecture, a type of structure wherein the consumer engages primarily with the product or brand extension alone and ignores the existence of their parent brand.

2.3 Typography

Landa (2013, pg. 44) defined typefaces as the unified design of character sets that make them recognizable and stylistic which commonly consists of design for

primarily letters and numbers, with the addition of symbols and punctuations, and finally accenting and diacritical marks. The way in which designers discuss typography is beholden to its metal cast origins. For today, however, typefaces exist within a digital file called fonts that can span various sizes.

2.3.1 Type Anatomy

These are the characteristics and major components of letters, a symbol delineating each member of the alphabet, that according to Landa (pg. 44) is to be cared for to preserve legibility:

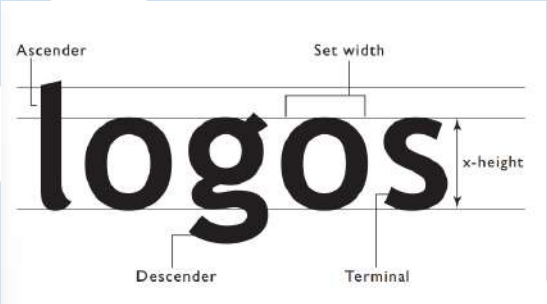

Figure 2.34. Visualization of Type Anatomy
(Source: Landa, 2013)

a) Ascender, the protrusion of a character's main stroke above the x-height
b) Baseline, the line which character's bottom sits, not accounting for its descender
c) Cap height, the space between the top of a capital letter and the typeface's x-height
d) Descender, the protrusion of a character's main stroke below the baseline
e) Italics, a right-sloped variant of a typeface meant to evoke a typefaces' handwritten origin
f) Ligature, the linkage between more than one characters
g) Oblique, the slanting of a typeface to emulate an italic. Its upright companion is called the roman.
h) Serif, an additional stroke in the end of a main stroke

i) Stem, the primary stroke of a letter, most commonly upright
j) Stress, the angled axes which governs all letters
k) Stroke, the structural line of a character
l) Terminal, the way in which a stroke ends or terminates
m) Weight, the visual heaviness of a typeface determined by stroke thickness
n) X-height, the shared height between all lowercase letters without accounting for ascenders or descenders

2.3.2 Type Classification

Though the classification of typography can be arbitrary, defined by the whims of the author, Landa (pg. 47) chose to group types as such

1) Old style or Humanist

Originating from the tail-end of the fifteenth century, old style can be distinguished by the character of their serif, that is both angled and bracketed. It's design harkens back to the origins of letters being handwritten with a broad pen. An example is Hoefler Text of Figure 2.35.

Figure 2.35. Old Style Serif Hoefler Text Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/thumb/0/00/Hoefler_Text_sample_2.svg/1200px-Hoefler_Text_sample_2.svg.png)

2) Transitional

Transitional is the bridging of old style and modern with inherited characteristics from both. First introduced in the eighteenth century, such examples are Baskerville in Figure 2.36.

Figure 2.36. Transitional Serif Baskerville Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/7/78/Baskerville_font_sample.png)

3) Modern

Modern serifs have a more geometric shape with dramatic stroke width difference. It's the most contrasted type of serif and further deviates from the shapes of traditionally handwritten letters. Such an example is Didot in Figure 2.37.

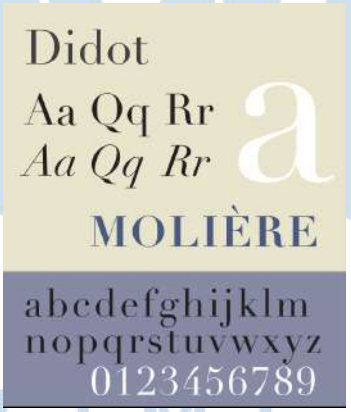

Figure 2.37. Modern Serif Didot Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/thumb/f/f9/DidotSP.svg/640px-DidotSP.svg.png)

4) Slab serif

Categorized for the slablike nature of their serifs, their inception was in the beginning of the nineteenth century. A prominent slab serif typeface, for example, is the Bookman of Figure 2.38.

Figure 2.38. Slab Serif Bookman Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/thumb/a/a3/BookmanSpec.svg/1200px-BookmanSpec.svg.png)

5) Sans serif

The exclusion of a serif created the sans serif genre of typefaces. The implementation of various stroke widths are optional for sans serifs, depending on their subgenres like Grotesque sans serif, Humanist sans serif, Geometric and the like. An example would be Franklin Gothic of Figure 2.39.

Figure 2.39. Sans Serif Franklin Gothic Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/thumb/3/35/Franklin GothicSP.svg/800px-FranklinGothicSP.svg.png)

6) Blackletter

Blackletters are based on the writings of medieval manuscripts, with compressed letters, very thick line weights, and minor curves in their drawings. Such an example is Fette Fraktur of Figure 2.40.

Figure 2.40. Blackletter Fette Fraktur Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/2/23/ FetteFraktur.png)

7) Script

The slanted and joined letterforms of script typefaces are to emulate real handwriting. Within them are a variety of typefaces that resemble a number of pen nibs or even brush strokes. An example of which is Brush Script of Figure 2.41.

Figure 2.41. Script Typeface Brush Script Specimen
(Source: https://upload.wikimedia.org/wikipedia/commons/thumb/1/1b/BSSpec.svg/800px-BSSpec.svg.png)

8) Display

Display typefaces are usually set in a larger point size as they are meant to be used as headlines. As such, they contain more intricate details that may fail them if used as body text. An example is Maelstrom of Figure 2.42.

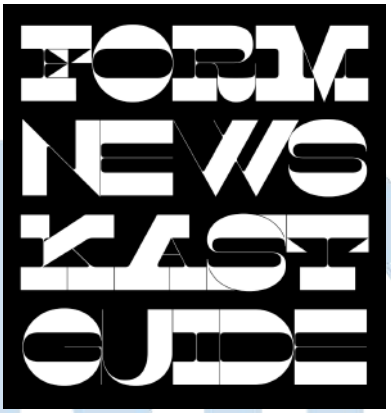

Figure 2.42. Display Typeface Maelstrom Specimen
(Source: https://klim.imgix.net/original_images/Maelstrom-Maelstrom-Sans-Specimen-01.png?w=600&fit=max&ixlib=react-9.0.3)

2.4 Product Photography

Before delving into the discussion of photography, the writer looked into the book of The Art of Photography for its definition. For Barnbaum (2018, pg.1-2), photography is the conveying of thoughts, ideas, and messages nonverbally

through the capturing of light. Meaningful photography, he elaborated, could successfully allow viewers to peek into never-before-seen images and can evoke emotion from the viewers.

One specific and relevant type of photography for this research is product photography. Thomas (2013, pg. 130) defined it as the utilization of photography as a means to elicit emotional and psychological responses for the purpose of advertising. Through compelling images, a viewer's attention can be gained and they will become more willing to decipher its meaning.

2.4.1 Shot Composition

Burns (2016) outlined the five major generations of computers to frame its history and development into context.

1) Angles

In product photography, the camera angle which is chosen must cater to the object's form and the characteristics it is trying to convey. Shifting the camera up or down creates visual distortions and alters how a viewer perceives the product. Photographers must weigh the balance of adding depth and interest without negatively portraying the object (pg. 126).

Figure 2.42 The Effect of Angles on A Product
(Source: Thomas, J. D., 2013)

a) Balance and dynamic tension

A symmetrically-balanced composition, where equal focus is given to both sides of the frame, evokes a feeling of sturdiness,

harmony, and solidity. It gives a time-tested feel and is naturally pleasing. However, it can also be perceived as rather plain (pg. 128).

Figure 2.44. Example of Dynamic Tension and Asymmetry
(Source: Thomas, J. D., 2013)

To counter this, photographers are encouraged to create an asymmetric and more dynamic composition by shifting a complementary object to contrast the main point of interest. An asymmetric balance, by comparison, creates a more engaging image. The dynamic tension between opposing objects holds the viewer's eye longer and familiarizes them more with the product in question. These are some of the methods to create such dynamism (pg. 129).

b) Composition in photography

To create a pleasing, interesting, and emotionally-charged arrangement of objects and subject matter is the main goal of composition in product photography. This is because product photography is inseparable from advertising, whose goals are to elicit an emotional response from the viewer. Composition aids in that by establishing guidelines and a broader concept to the image (pg. 130).

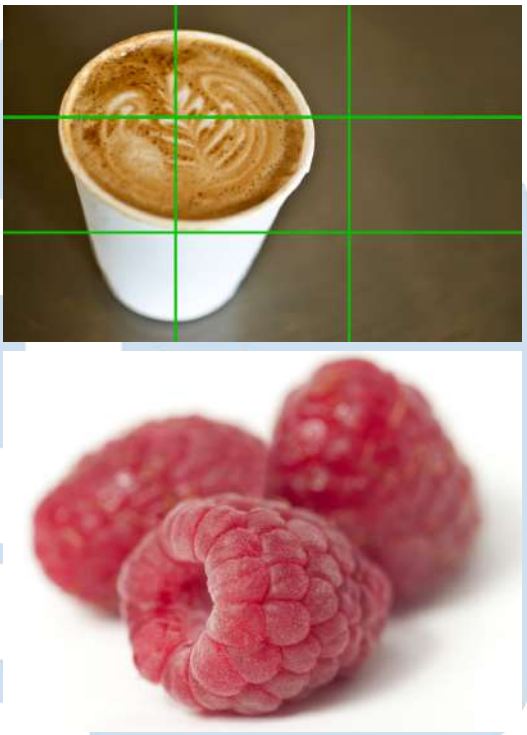

Figure 2.45. Example of Rule of Thirds and Rule of Odds
(Source: Thomas, J. D., 2013)

One such guideline is the rule of thirds. It is the division of the image into three rows and three columns. Then, the photographer places the point of interest where the lines of division intersect, creating dynamic tension and an asymmetric composition (pg. 131).

Another rule to guide photographers is the rule of odd, which states that a composition tends to be more pleasing with odd-numbered elements in it. This is because an even number encourages the eye to stop and divide the image, therefore not perceiving it as one whole (pg. 132).

c) Color in photography

As with any visual medium, photographers can utilize color to conjure emotions within the viewer. It can imbue an image with a specific tone, give a sense of harmony, and create dynamic tension. Color temperature also has a part to play, in that warm colors create

excitement, energy, comfort, and warmth while cool colors elicit a sense of relaxation, frigidity, and a soothing quality (pg. 134).

Figure 2.46. The Different Effects of Color
(Source: Thomas, J. D., 2013)

d) Tonal range

Formerly an archaic term used for film rolls, tonal range refers to the camera's ability to portray the darkest blacks and the brightest whites. This gradient of color can be achromatic or be tinted with color on the midtones. It can be used to accent the image or guide the viewer's eye and isolate the product as a point of interest (pg. 140).

Figure 2.47. The Different Effects of Tonal Gradients
(Source: Thomas, J. D., 2013)

2) Lines, patterns, and textures

a) Lines in photography

Photographers can use regular lines simply to define shape, leading lines to guide the eye across the image, or dividing lines to separate and create negative space. The angle at which a line is rendered conveys different meanings. Horizontal lines imply a safe feeling of stability. Vertical lines do the same while also adding a sense of strength. Diagonal lines add dynamism and can add variety to a symmetrical composition (pg. 144-145).

Figure 2.48. Example of Leading Lines in Photography
(Source: Thomas, J. D., 2013)

b) Patterns in photography

The repetition of shape and line creates patterns within photography. Patterns can be utilized in the background to create a more interesting composition. Alternatively, a large number of products can be composed to become a pattern itself (pg. 147).

Figure 2.49. Example of Patterns in Photography
(Source: Thomas, J. D., 2013)

c) Textures in photography

A product's texture can be used to its advantage, creating a more visually tactile image. This can be further amplified with the use of harsher lighting for dramatic effect. However, the absence of texture could be used as juxtaposition (pg. 148).

Figure 2.50. Example of Texture in Photography
(Source: Thomas, J. D., 2013)

2.4.2 Lighting

In any setting or location, the light that contributes to a photograph must be controlled and adjusted accordingly.

1) Qualities of lighting

The characteristics, features, and properties of the light which interacts with an object are what photographers call the qualities of light.

Those qualities can be tailored to fit the project and product to reach the intended effect. Mainly, the way shadows fade a dark area to light, also called shadow edge transfer, is what determines the quality (pg. 80).

Figure 2.51. Difference Between Hard and Soft Light
(Source: Thomas, J. D., 2013)

a) Hard light

Hard light is achieved by using a light source with a small apparent diameter from the object. This creates shadows with a harsh transition from light to shadow accompanied by a defined highlight region. It also has very good contrast, making details more defined and separating foreground from background (pg. 80-81).

b) Soft light

Conversely, soft light creates a smooth and diffused shadow that is achieved with an apparent larger diameter, commonly through the use of softboxes. This gentle transition of light and dark areas makes soft light more flattering and acceptable for a broad range of subjects, though simultaneously making it ubiquitous (pg. 82-83).

2) Types of lighting

The characteristics, features, and properties of the light which interacts with an object are what photographers call the qualities of light.

Those qualities can be tailored to fit the project and product to reach the intended effect (pg. 84).

a) Key light

Key lights are the primary light that defines the form of the object and governs the light quality of the image. Other accompanying lights are adjusted to suit the tone of the key light (pg. 84).

Figure 2.52. Difference Between Key Light and Fill Light
(Source: Thomas, J. D., 2013)

b) Fill light

Fill lights illuminate the shadow areas to bring out otherwise invisible detail. It is measurably dimmer than key light to prevent the creation of double shadows and flat images (pg. 84-85).

Figure 2.53. Example of Using Key and Fill Light in Conjunction
(Source: Thomas, J. D., 2013)

c) Background light

To separate the object from the environment, a background light is a commonly used tool. Furthermore, it can act as a flourish of color to heighten the photo (pg. 87-88).

Figure 2.54. Example of Different Background Lighting
(Source: Thomas, J. D., 2013)

d) Rim light

Rim lights define the far edges of the subject to create further separation and even define form in low-key photography (pg. 89).

Figure 2.55. Examples of Rim Lighting on a Dark Background
(Source: Thomas, J. D., 2013)

3) Direction of lighting

The direction which is touching the subject must be of great consideration, as hide or highlight textures depending on the slightest change in angle (pg. 90).

a) Overhead lighting

Overhead lighting, or top lighting, illuminates subjects from above, creating a good amount of contrast and defined highlights. It has a predictable quality and is preferred for repeated use between different shots (pg. 90).

Figure 2.56. Examples of Overhead Lighting on A Product
(Source: Thomas, J. D., 2013)

b) Frontlighting

Frontlighting is only commonly used when the visibility of detail outshines the need to portray the object artistically. This is because it flattens shadows and eliminates an object's apparent dimensionality (pg. 92).

Figure 2.56. Examples of Frontlighting on A Stick of RAM
(Source: Thomas, J. D., 2013)

c) Sidelighting

When used as a key light, sidelighting often creates the most preferable results, as it illuminates one side of the subject while casting shadows on the other. This and the highlighting of textures creates a sense of tactility (pg. 92).

Figure 2.57. Examples of Sidelighting on A Camera Accessory Box
(Source: Thomas, J. D., 2013)

d) Backlighting

Backlighting can be useful to create glowing edges around the subject and is most relied upon as a key light for translucent objects like glass. It must be used carefully, otherwise, it can shine directly to the lens and wash out the image (pg. 94).

Figure 2.59. Examples of Backlighting on A Translucent Lime Slice
(Source: Thomas, J. D., 2013)

e) Underlighting

Under-lighting is most commonly used for artistic and accenting lights to create special effects. It is rarely purposed as a key light. It can be used in backgrounds for separation purposes ((pg. 94-95).

Figure 2.60. Examples of Underlighting on Glass Aquarium Rocks
(Source: Thomas, J. D., 2013)

2.5 Computers

Toppr (n.d.) defined a computer as a programmable machine that processes input through arithmetics and logical equations to return a result for the user. Though commonly associated with the device, before the advent of technology, computers referred to the person doing the calculations themselves, that is the person who 'computed' which was the norm in the 16th century.

2.5.1 History of Computers

Burns (2016) outlined the five major generations of computers to frame its history and development into context.

1) First generation computers

Between the years of 1940-1955, computers were these large, room-filling machines with vacuum tubes acting as circuitry and magnetic drums as memory. It used the most rudimentary programming language available to do calculations and utilized paper cards or tapes as input devices.

2) Second generation computer

The second generation was heralded by the use of transistors, a massive upgrade which allowed computers to decrease in size and heft but was nominally more powerful. It was first popularized in the 1950. Their computing language also evolved into 'assembly' and they were able to store instructions unlike before.

3) Third generation computer

The miniaturization of transistors into little silicon semiconductors marked another leap for computing power. This was also the generation that introduced keyboards and monitors as input devices and was able to do more than one task at any given time. This resulted in the first signs of mass-market appeal during the 1960s.

4) Fourth generation computer

Intel created the first integrated chip with the Intel 4004, further shrinking the size of computing elements. 1981 marked the first ever home-use computer by IBM, followed in 1984 by the Macintosh by Apple. Microprocessors could also link with each other, sparking the creation of the internet. Graphical user interfaces were also starting to make waves with the consumers.

5) Fifth generation computer

The most current computer generation, with the advancement of artificial intelligence (AI) and quantum computing. It is marked by the ability for computers to actively learn for itself and process naturalistic human language as opposed to code instructions.

2.5.1.1 History of Computers in Indonesia

According to baktikominfo.id (2018), during the early days of computers in Indonesia, it was considered a luxury product, only to be used by government bodies and large-scale industries. Its exorbitant price also made it inaccessible to the common folks. The journey of the commodification of computers began as such.

1) During the 1960s

The first computers to enter the nation was in 1967. Its status as a luxury product made it unpopular among the people, that is to say it received a less-than-warm welcome. The formation of Badan Koordinasi Otomatisasi Administrasi Negara (BAKOTAN) on July 4th, 1969 was done to educate the common consumer and provide purchase counseling for interested government bodies.

2) During the 1970s

In 1972, computers began to enter the educational sphere. It was spearheaded by Indro S. Suwandi PhD who established the first ever computer major program in Universitas Indonesia and founded Pusat Ilmu Komputer UI (PUSILKOM). They strived to teach college students technical proficiency in operating a computer which grew to become more popular with time.

3) During the 1980s

The 1980 South East Asia Regional Computer Conference marked a milestone era for computers, as nations within the ASEAN territory discussed a joint effort to develop computer technology together. This also marked the first inception of the ‘mini computer.’ However, it was deemed inoperable and cumbersome. This led to the development of the

UNIX operating system which was able to run on even super micro computers. In 1983, a number of Universitas Indonesia students was able to create their own version of UNIX using the Indonesia Gateway (INDOGTW) computer.

This decade also marked the introduction of emailing, data transfers, ethernet LAN communication and printers connected to the network. Another group of Universitas Indonesia students were able to create the INDOVAX, a computer running UNIX 4.X BSD with 2MB of memory and 300MB disk space.

4) During the 1990s

This era was the beginning of the Personal Computer (PC) with the increasingly popular Intel Pentium chip which first introduced x86 chipset architecture. This was also the birth of the internet, which led to an exponential growth of computers in Indonesia.

5) During the 2000s

In the 2000s, computer chips were getting increasingly stronger with the unveiling of Pentium III. It was also the decade of the viral operating system Windows 98, which even with the hefty price of eight to ten million rupiahs, was still able to become popular among consumers. During this decade, Intel was met with a new competitor who called themselves AMD, though they aimed for different target markets.

2.5.2 Types of Computers

BCcampus (n.d.) classifies computers based on the various size they come in, from supercomputers, mainframe computers, minicomputers, and personal computers (PC) or alternatively known as microcomputers.

1) Supercomputers

Supercomputers are used to calculate an enormous amount of data which requires an equally large computational power, such as forecasting

the weather, researching climate change, simulating scientific phenomena, calculating quantum mechanics, and cryptanalysis.

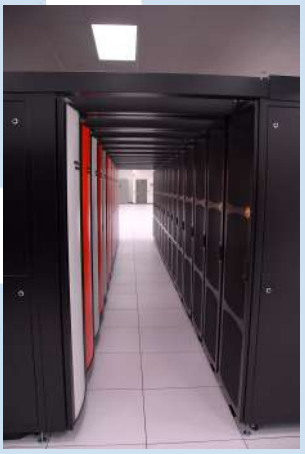

Figure 2.61. Example of Supercomputers
(Source: https://opentextbc.ca/computerstudies/wp-content/uploads/sites/322/2020/11/jaguar-tunnel.jpg)

2) Mainframe computers

Similarly large, mainframe computers are highly-performant and are employed within large institutions to store and process large amounts of information. Such examples include libraries storing huge databases, researchers calculating a census, stock brokers processing transactions, and businesses analyzing consumer statistics.

Figure 2.62. Example of Mainframe Computers
(Source: https://opentextbc.ca/computerstudies/wp-content/uploads/sites/322/2020/11/New-IBM-Z10-Mainframe.jpg)

3) Minicomputers

An archaic delineation that refers to a size of computers that are between mainframes and microcomputers. More recently, minicomputers have come to be understood as small sized servers.

Figure 2.63. Example of Minicomputers
(Source: https://opentextbc.ca/computerstudies/wp-content/uploads/sites/322/2020/11/Monitor-and-keyboard-for-48K-minicomputer.jpg)

4) Personal computers

Designed to be used by a single user, this category used to be called 'microcomputers' as it only refers to a small sized machine. It is defined by having only a singular microprocessor within its CPU. In more modern times, it has evolved into different types

a) Desktop computers

A stationary computer that lives in or under a table, commonly accompanied by peripherals like keyboards, mouses, monitors, and a 'tower' containing the computing parts itself.

Figure 2.64. Example of Desktops
(Source: https://live.staticflickr.com/2049/2264127312_d2e8fc3d1c_c.jpg)

b) Laptop computers

A battery-powered computer that is compact enough to be portable and be used on the lap, hence the name. Its parts include a screen, keyboard, and touchpad as an input device.

Figure 2.65. Example of Laptops
(Source: https://opentextbc.ca/computerstudies/wp-content/uploads/sites/322/2020/11/Laptop-computer.jpg

c) Tablets

A more portable, smaller, and wireless touchscreen PC compared to conventional laptops.

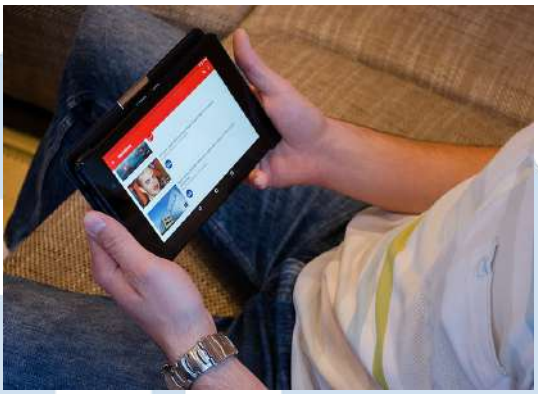

Figure 2.66. Example of Tablets
(Source: https://i0.hippopx.com/photos/738/140/923/youtube-tablet-news-app-preview.jpg)

d) Smartphones

A mobile device that has become performant enough to fulfill the previous functions of a PC.

Figure 2.67. Example of Smartphones
(Source: https://upload.wikimedia.org/wikipedia/commons/1/16/Android_Smartphones.jpg