ENRICHING SPACES

A methodology for enhancing interaction between the user and their spaces in an Indian context

Vrinda Verma
M.Des 2018
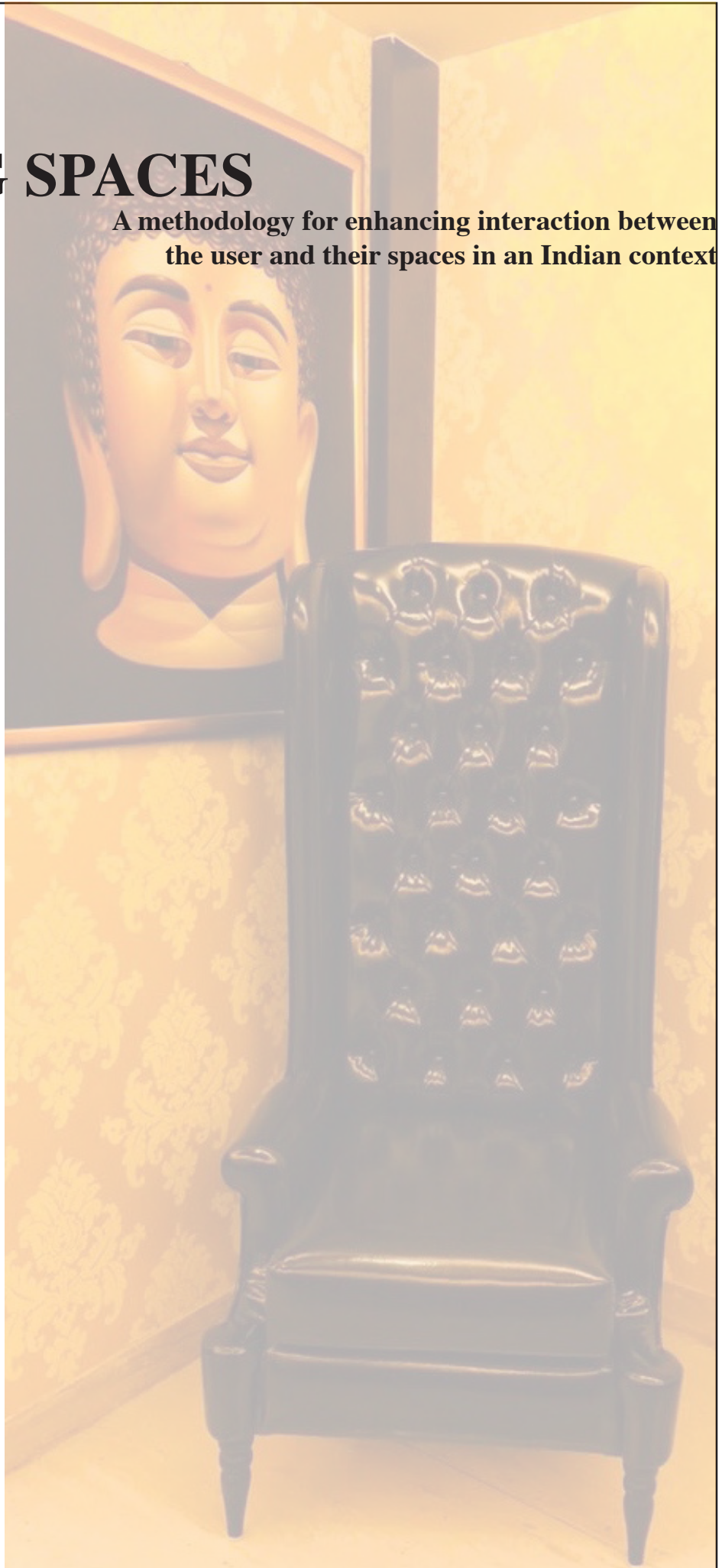
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ABSTRACT

The longing for a personal space that serves as a sanctuary correlates with the current lack of engagement between the users and their spaces in the urban living of India (IES, 2018). Currently upper-middle-class families in India engage in the philosophy of materialism with their luxurious way of living to create this sense of retreat in order to be comfortable and satisfied (Hudders & Pandelaere, 2012). Drawing on minimalist theory to appertain a heightened value, this research introduces an amalgamation of Indian luxury strongly influenced by the Mughal dynasty with usability to enhance the connectivity of the user with their spaces. This practice led research project was derived from an autoethnographic case study of my family in India. Analysing the existing spaces and objects to develop a made to order site-specific active object, utilising the precision in craft and rich materials from Indian luxury with simplicity and clarity regarding minimalism through design thinking. To actualise this, the scope of innovation on an existing object has been identified from the case study through methods of spatial and ritual analysis, i.e., how the presence of an active object enhances or restricts the interaction between the user and their spaces. Furthermore, the research findings can be offered as a service to accommodate personal needs of India's upper-middle-class families.

Keywords- retreat, engagement, sanctuary, luxury, Indian luxury, minimalism, usability, craft, user, space, active object, autoethnographic case study

SECTION 1

INTRODUCTION

My Story

During my Bachelor (Hons.) of Art, I started to develop an interest towards designing housing spaces. My interest was encouraged when I started working as an interior architect designer with a renowned architect, Anil Bhatia and interior designer, Mamta Verma situated in India who had some expertise. It was a journey of exploration, giving me exposure to learning the importance of combining and accommodating the user's desires and requirements with the fundamental values of spatial design. From this experience, I understood that it is so basic to have the capacity to fuse the design direction given by the user with the elements of design (Figure 1) in order to create a successful service innovation.
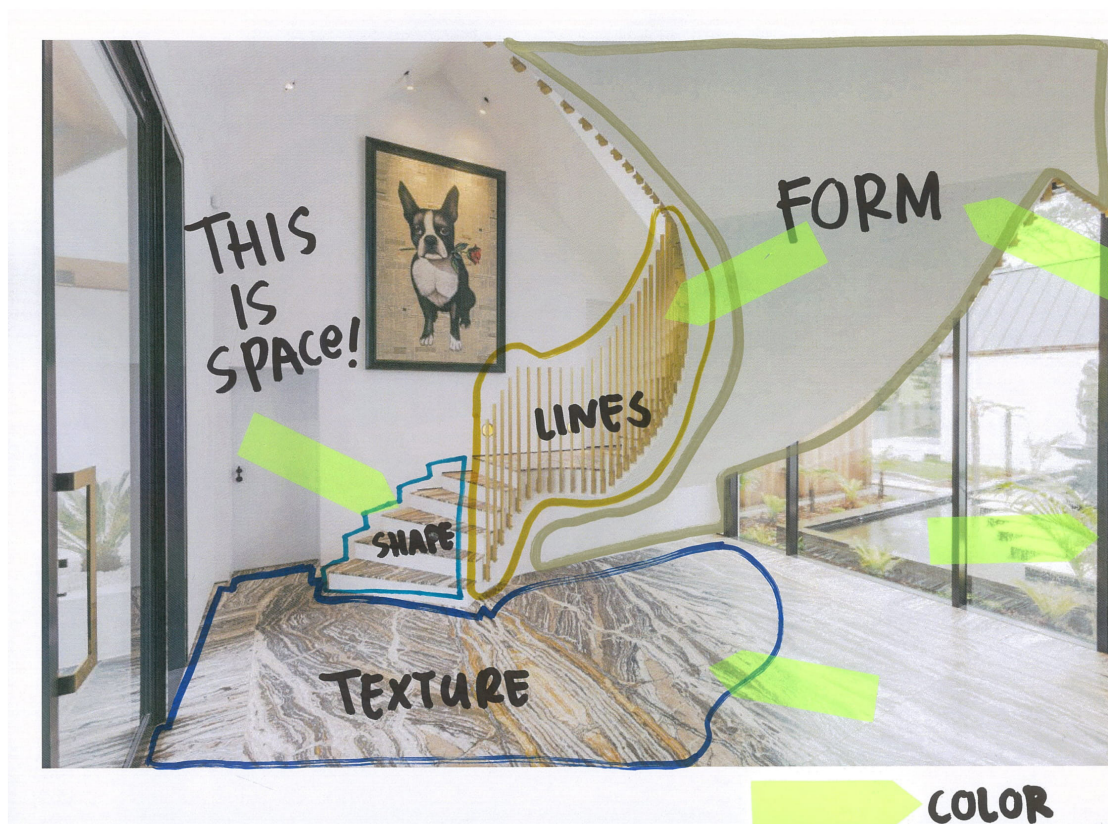

Figure 1. Elements of design in a space | Blanchard house by Trinity Interior Design

The residents of New Delhi, India with a population of 18 million are exposed to the city's madness everyday as they step foot out from their homes, as the streets are flooded with frenetic activities at all hours (Fusco, 2018). Because of this chaos in the public sphere, Indian people treasure their personal spaces as sanctuaries in their busy lives. As an Indian designer, I am also interested in conceptualising ideas and improving the tranquility of the domestic environment and this is the starting point of my research.

In India, the middle class is considered the most critical category for driving economic growth and they provide a colossal market for consumer durables (Vaishnav, 2017). The middle-class category is divided into three main groups-lower-middle class, middle-middle class, and upper-middle class, with the latter having the highest status. This project focuses on the upper-middle-class group and the city of New Delhi due to their rapid interest towards luxurious objects. As being a part of the upper-middle-class group, I have perceived that luxurious objects provided a sense of authenticity and happiness. My family members have specific expectations of their home that relate to comfort, control, convenience, and a retreat. I have noticed my family members' satisfaction in performing activities in their individual spaces.

Culturally, people in India live traditionally and continue to practice individual or family-oriented rituals and activities which escalate aspects of contentment. In the past two decades, the demand for tranquility and accessibility in their lives has rapidly increased (Varman & Vikas, 2018). During my research investigation into the target market; in my observations, I have noticed that there is a trend towards individuals to consider luxury as a way to establish their status in the society in their own unique way. As a personal example; in my household, we cover the living hall furniture, but uncover it when a guest comes; this situation expresses the value of luxury furniture and the showcase of status during a hosting. Director Sunil Tuli, an Indian consumer expert addresses the theme 'The New Indian Luxury Consumer' (2006). According to Tuli, consumers of Indian luxury are seeking for a culture based on ostentation, inspiring others with wealth and power, and owning high-class objects by retaining them first (Davitt, 2006).

Luxury with regard to the context of this project describes as a state of elegance-elevated tranquility and accessibility that can be commonly acquired at extraordinary cost (Oxford University Press, 2018). It means manufactured objects priced at a higher value in terms of money, emotions, attachment, engagement that can create affordable, authentic, and timeless luxurious objects. Luxury is also associated with aspiration in developing countries like India, where there is an abundance of luxurious resources that can be accessed by conspicuous consumers. The consumer would look for finishing techniques and consistency of the art as well as skill before purchasing expensive objects (Figure 2). India has a legacy of owning luxurious historical antiques produced by the artisans with high-level craftsmanship.

The visual appearance of luxury is often influenced by the regional culture in India. Luxury can enrich the user's positive mood and atmosphere as well as moderate the negative mood and atmosphere which overall can improve satisfaction in life (Hudders & Pandelaere, 2012). The purchase of luxury goods is dominated by Indian history and heritage. India is known for its historic luxurious kingdoms and luxurious goods are a part of Indian culture. The Mughal dynasty, founded in 1526, which was an empire in the Indian subcontinent and was considered "India's last golden age" (Eraly, 2007). The Mughal way of life still has a strong impact in the society of India for their high standard of living, art, culture, and architecture (Ikram, 1964). An example of this is the most universally admired masterpiece from Mughal time, UNESCO World Heritage site Taj Mahal was carried out by the horticulture planners and architects of Mughal Emperor Shah Jahan (UNESCO, 2018) which still draws attentions of the world today. Constructed in translucent marble, Taj Mahal's detailed carvings are inspirations for contemporary designers to use the carvings to maintain Indian identity in their design vision. Luxury reconnects the past and restores the royal legacy (Atwal, 2012). The imperial Mughal creative ateliers were amongst the most inventive of their time (Carvalho, 2004). The sharing of symbolism was a prominent practice in Mughal India, with the same decorative motifs regularly motivating the enrichment of original documents, materials, and different kinds of craftsmanship (Carvalho, 2004) Traditionally the perfection of each detail and precision of the skills of craft artisans was considered luxurious (Carvalho, 2004). Contemporary design resonates with the subtle influence of Mughal flair that acknowledge the exuberance and passion of designing details (Home and Soul, 2018).

Art & craft by skilled artisans

Motif technique
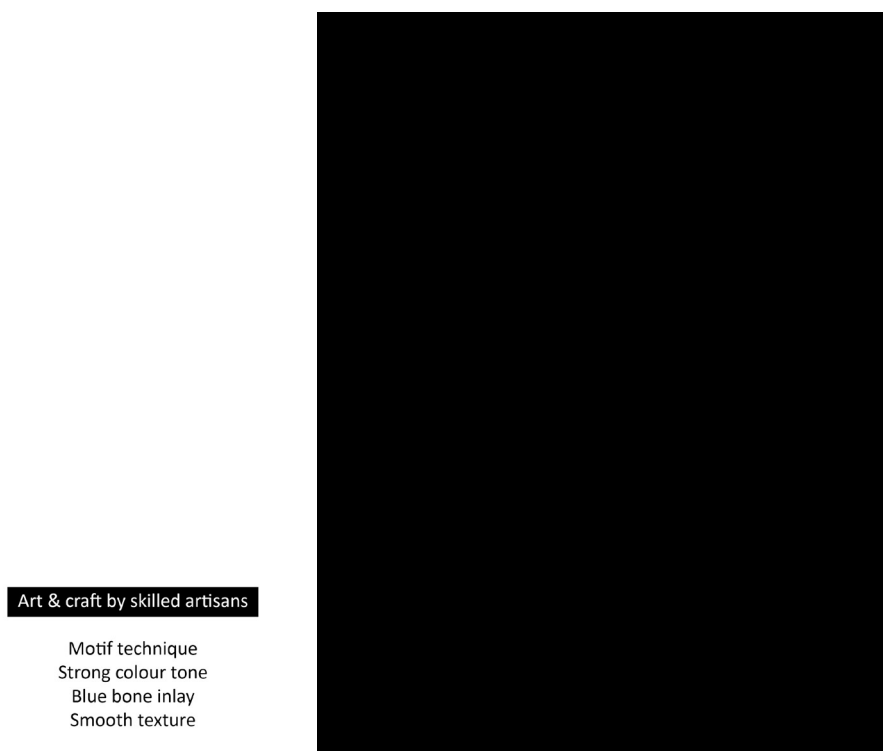Strong colour tone
Blue bone inlay
Smooth texture

Figure 2. The characteristics of luxury object | Bedside table by Iris Furnishing

From the research philosophy on architecture and happiness, a renowned architect, Luis De Garrido stated that lack of engagement reduces factors of happiness such as 'amplifying factors': attention to detail, enjoy the search process, personal relationship and ability to be emotionally moved (Garrido, 2018). Given the complex and constantly changing environment in which the upper-middle-class group lives in, this project had detected the absence of connectivity between user and their sanctuary. The void creates a negative experience on a day-to-day basis for the users as they don't have the accessibility to feel more connected with their space which eventually reduces their factors of happiness. The things we own can nurture a sense of attachment and connectedness (Lemieux, 2018).

Thus, I believe minimalism can be used to strengthen the connection and balance between users and their spaces through design thinking. Minimalism can be described as a working strategy which uses simple and minimalist aesthetics to provide a sense of carefully curated and striking design, in a modest way without the clutter of unnecessary components (International and Windsor, 2004). Additionally, minimalism is far more than a simple design of spaces, and more than a reduction of simplicity in the space. The prerequisite of creating a great minimalist concept is regularly a result of less components implies less likelihoods and it is harder to accomplish spaces that have an inviting atmosphere (International and Windsor, 2004). Nonetheless, minimalism pushes designs further to make unique spaces for a specific users who have a specific culture for these refined spaces (International and Windsor, 2004). The maxim of minimalism by Ludwig Mies van der Rohe, "less is more" is explained as a "notion that simplicity and clarity lead to good design" (Martin, 2018). Overall, minimalism is about being transparent and informative in the subtlest visual by applying the process of de-cluttering and re-defining to heighten the purpose of an object.

This research context has given me the competence to understand the connection between the spaces, the users and the objects, and also focus on the purpose of the object existing as a third element. An active object is described as the desire of the user to make use of existing object in their personal space which will transform the passive object to an active object. For Instance, the dining table, a passive object transforms into an active object during hosting. On reflection of the problem stated, I believe that by utilizing Indian luxurious resources and adopting a minimalism design thinking strategy to develop a made to order site-specific active object I can contribute in the research field as a conscious and purposeful designer. The design methodology implies various analysis through an autoethnographic case study. This has facilitated my personal desire to conduct a journey towards re-defining the relationship between my family and our space through an active object. Therefore, I have come up with two main questions as a guide to get a deeper understanding of this research project.

Research Questions:

I.   How can a research methodology be used to design a customised site-specific active object?
II.   How can minimal luxury approach be used as a methodology to create a service design focusing on the existing spaces and objects?

Drawing from the scenario in India and the description on Indian luxury, this project has come up with certain aims and objectives in response to the potential innovation of an active object.

Aims:
I.   Exploration of an active object practicing a fusion of minimal design thinking and luxurious resources to establish a service.
II.   To redefine the purpose of an existing active object by analysing the connectivity of the user within their space.

Objectives:

I.   To develop a methodology by analysing an auto-ethnographic case study.
II.   To innovate a form on an existing active object using minimal luxury approach.
III.   To demonstrate the enhancement of residential spaces through visual media.

SECTION 2

LITERATURE & CONTEXT REVIEW

Luxury: Opulence living in India from a historical & contemporary perspective

Looking in the Oxford English Dictionary for the definition of the word 'Luxury'; regardless of whether food, clothing, furniture, or appliances of any category. Luxury is the constant utilisation of, or liberality in what is the preference or cost; and in recent utlisation, something which is beautiful, accounted to the necessities of life in addition to something which conduces to satisfaction or comfort (Oxford University Press, 2016). In simple words, people use luxury as a medium to search for enjoyment in their daily rituals. Consumer's relationship with luxury is exclusive; they search for the originality of the object to make it worth the money they spent. Consumers discovering their purchases of luxurious objects from high-end ateliers give an experience of prime importance to the consumers for their purchase.

According to Werner Sombart (1992) - "Luxury is any expenditure that goes beyond the necessary" (Csaba, 2008). Sombart's concept of luxury diagram (Figure 3) explains the key components of understanding luxury categorised into three main groups: necessary; qualitative and quantitative; and idealistic and materialistic. This research project focuses on the essential subjective judgments in terms of aesthetic indulging in luxurious objects to convey a sense of exclusivity, status, and wealth; qualitative refinement that proposes alteration of materials and form for a purposeful processed object; and materialistic impulses that draw attention to the public's desire to consume luxury for personal satisfaction. The satisfaction of acquiring something new and appreciating the art works detail by the artisans gives integrity to the luxurious object. I have observed the demand for luxurious objects increasing following the rise of the trend in the society.

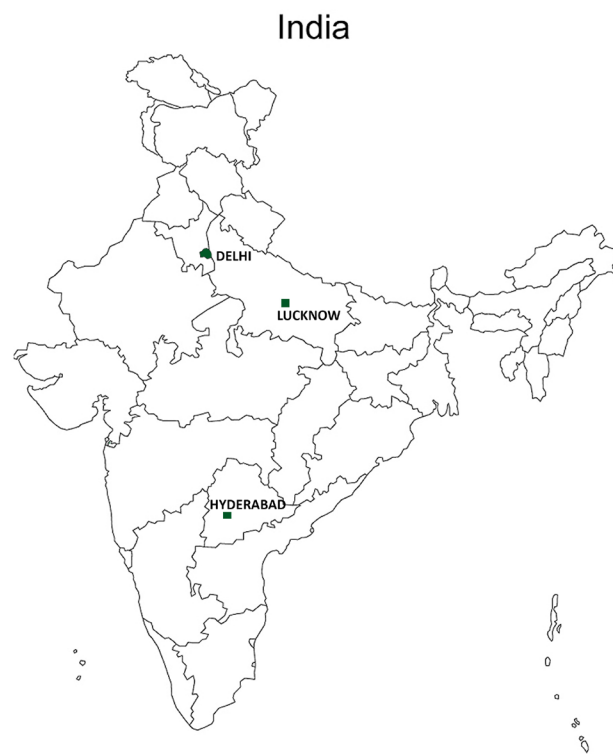Figure 3. Sombart's concept of luxury | Redefining luxury: A review essay

India

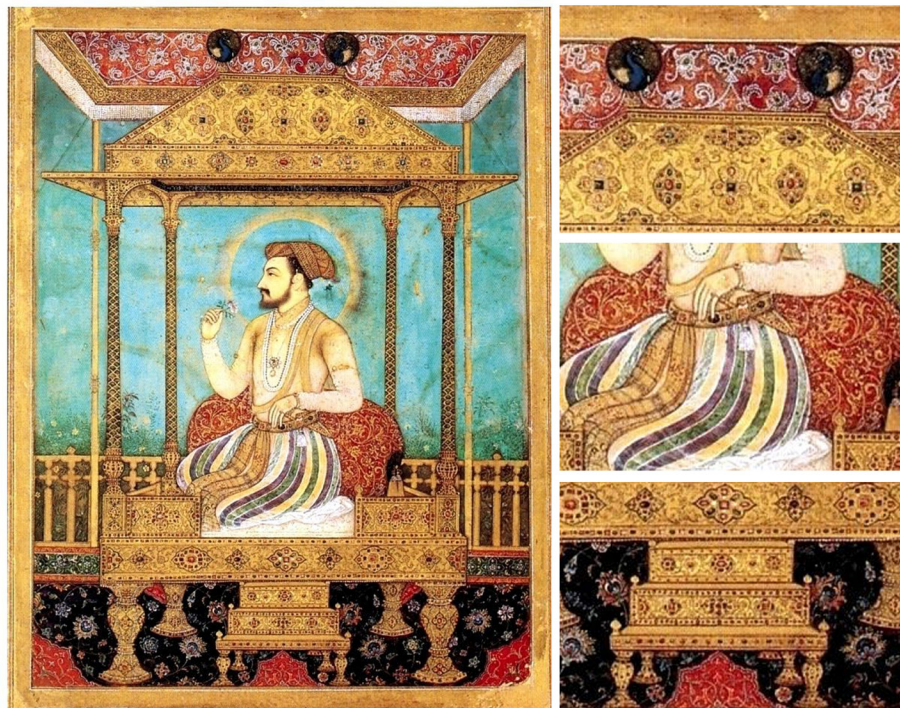Figure 4. Map of India | Bruce Jones Design Inc. 2010

Figure 5. Portrait of Shah Jahan on the Peacock Throne | Painting by Govardhan

India is one of the oldest and a mix of diversities in rituals, cultures, traditions, languages and luxury is seen a central aspect of this culture. If religious texts such as Mahabharata are to be believed, then this luxurious lifestyle has been followed since ages (Sinha, 2012). India was historically one the wealthiest countries known as 'Sone Ki Chidiya' or 'Golden Bird'. The phrase 'Sone Ki Chidiya' refers to 'sone' meaning gold and 'chidiya' meaning bird, which indicates the free spirit of the country that was full of resources with the Mughal emperors and Nawabs being the connoisseurs of luxury. The vast amount of Gold and Stones in India started being used in the designing of the thrones and furniture of the Mughal rulers (World Gold Council, 2017). Historically, a qualitative refinement (Figure 3)[refer to page 17] was considered as luxury where the precious materials like gold, gemstones, pearls, and not to mention a few that were utilised as an essential part of the object to give value to the object. India's history has been divided into three categories based on the rulers: Hindu, Islamic, and British (Kulke & Rothermund, 2016). From the mid of the 16th century onwards, Mughals ruled the Indian continent for almost two decades before the British when the designing of beautifully constructed monuments, paintings, carpets, and metal objects gained impetus (Michell & Currim, 2007). Three major cities of India namely: Hyderabad, Lucknow and Delhi were highly influenced by Mughals and their elation can still be seen in these cities (Figure 4).

It is believed that the rulers of Mughal Empire were among the richest men in the world at their time of reign. With regard to the subjective judgment of aesthetics, Mughals indulge in luxurious objects to convey a sense of exclusivity, status, and wealth. The qualitative refinement (Figure 3) [refer to page 17] through their patronage of art, poetry, Persian-style gardens, and miniature painting (Hays, 2013), proposes alteration of materials and form for a purposeful processed objects and materialistic impulses.

The painting (Figure 5) illustrates the wealth and lifestyle of Mughals. The Mughal Dynasty king's throne, The peacock throne was a seat of gold and bejeweled for the Kings to be seated while welcoming the ambassadors and audiences. Its background was made of an image of a peacock with a prolonged tail fashioned in gold and precious stones. The 7-year built throne embraced golden legs, an enameled canopy supported by twelve emerald pillars which bore two peacocks encrusted with gems. On each pillar between the birds was a tree covered with diamonds, pearls, rubies, and emeralds. Molded above the audience hall in the Red Fort where the peacock throne was gallantly positioned were the words, "If there is paradise on earth, it is this, it is this!" (Hays, 2013). The quote indicated that the beauty of peacock throne was one of a kind which is equivalent with paradise. The idea of bringing value to materialistic objects came from the Mughal dynasty adopting its unique materials like gold, diamonds, pearls, but to mention a few into the contemporary world. The flawless designs of the motifs were the catch point of the objects during that time. This is just one example of the wealthy style of living of the Mughals. In India, there are 8 UNESCO world heritage sites (UNESCO, 2018) that demonstrates Mughal influenced towards Indian luxury since the 15th century. This includes the Humayun's Tomb in Delhi (UNESCO, 2018), Red Fort as a relic of Mughal architecture of the 17th century under the rule of Shah Jahan, Agra Fort situated near the Tah Mahal; and Fatehpur Sikri as a political capital under the Mughal rule (Chopra, 2012).

The lifestyle during the Mughal dynasty was identified as gracious. Qualitative refinement (Figure 3)[refer to page 17] suggested that Mughal's lifestyle imposing Mughals exclusivity and wealth reflects to the way of living that is beyond the basic daily life necessities. The interiors of the explicit buildings of Mughal dynasty are fully constructed with rich decorated white marble, sandstone, gemstones, motifs, carvings, and consistency

Figure 6. Taj Mahal, Agra | Verma, 2018

of colours. In Red Fort, the most expensive diamond 'Kohinoor' was a part of the Emperor throne (Shetty, 2016). The throne was made of gold with studded 'Kohinoor' diamond and other precious stones exposing the extravagant material to the public. The palaces from inside had enormous spatial spaces for different purposes like a dressing room, study room, private room, dining room, meeting room, entertainment room, and not to mention a few. The symmetrical layout and balance between the buildings in the complex is the qualitative refinement and alteration of materials and form for a purposeful space.

The world famous Taj Mahal (Figure 6) is a symbol of India's rich history, decorated with 28 different varieties of semi-precious and precious stones (A&E, 2018). The historical stories claim that the Mughal Emperor, Shah Jahan who built Taj Mahal for his wife, cut off the hands of the Architects and workers after the completion of the structure to ensure that no such structure is built after.

The exclusivity of craft in India provides me an idea of innovating a tailor-made object extracted from my historical culture corresponding to the qualitative refinement where users adore the magnificent aesthetics and quality of the luxurious objects. Tailor-made user-space relationship stimulates the importance of luxury and the attention to the aesthetic details.

The Mughal Empire continues to hold a prominent role in shaping the future of Indian style as it states an ideal example of royal longevity of style (Deshpande, 2018). An interior design firm, Casa Paradox proves that Indian's changed their luxury consumption style, a habitual way of living from high-end exterior architecture to intricacies of interior design (Paradox, 2015). In my opinion, contemporary luxury in the 21st century is a way to experience the quality of an elite object. As I was trained under designers who worked on luxurious spaces, the goal is to make a space feel comfortable and culturally effective. The new advancement to space reflects the aspiration and presence of these luxurious objects within a user's space. The atmosphere follows a pattern of idealistic expenditure purposes (Figure 3) in view of designing for consumers' luxurious way of living.

This emphasis on luxury in Indian culture is not just confined to the ancient times and to religious books, but also integral to the 21st century. For contemporary users' convenience or the usefulness of an object provides essential comfort and makes it easier to perform rituals during their daily lives. The users' engagement with the object relates to the importance of the space as a result of the objects placement resulting to a high-level of identification and appreciation value. The aesthetic of the object works hand-in-hand with the functionality of an object as aesthetic and functionality allow the object to be self-explanatory and gaining importance to the space.

Contemporary Indian consumers are not only adopting to the global objects, but they are also ensuring that they maintain or improve on their comfort level. In the year 2008, French ambassador, Jerome Bonnafont travelled to India and mentioned that India still has the artistic feeling which refers back to the times of Mughal emperor, he agreed that the art of luxury is alive in India (Bothra, 2013). Luxurious resources in India helps to connect the users with their space in order to respect the fact that upper-middle-class groups can bestow them and make everyday moment a realistic affection in their lives. From the history, I believe there has been a balance of traditional resources and contemporary values. The control over luxury is constant in term of aesthetics.
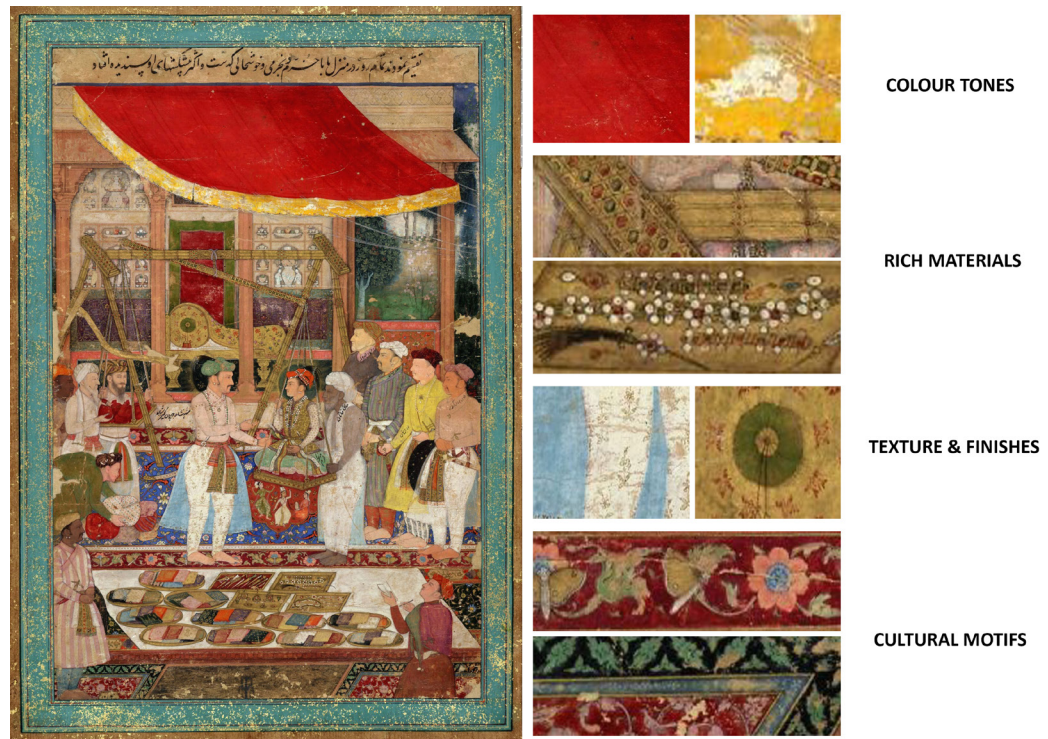
Figure 7. Emperor Jahangir weighs Prince Khurram | Painting by Manohar Das | British Museum, London

Figure 8. Simurgh and Gaja-Simha Carrying Elephants, Mughal Period 18th Century | Gift of Dr. Ananda K. Coomaraswamy | Museum of Fine Arts, Boston

Based on Sombart concept of luxury (Figure 3), the subjective judgement supports aesthetics to be a vital point in defining Indian luxury context. The painting (Figure 7) exhibits the aesthetics of Mughals luxury which this project focuses on:

1.   Colour tones in the Mughal Empire are identified as a strong colour palette. The artisans of the Mughal dynasty had a remarkable way of manipulating the luxury and bold colours with various materials to give a majestic appearance to the object. An example of this can be seen on the Lisbon cabinet-on stand and the Kuwait cabinet from the Mughal dynasty are inlaid with stained wood and ivory that used colours - imperial red, green, blue, and yellow to account for a vibrant appearance of these pieces (Carvalho, 2004).

2.   Cultural Motifs of Mughal decoration can be classified into five categories, geometry; arabesque; calligraphy; flowers; and animals (Michell & Currim, 2007). Motifs are the most basic or smallest unit of pattern that is repeated in different ways to create a distinct design (Government of A.P., 2018). Gaja-Simha (Figure 8) is an exceptional example of Mughals motifs, it is a motif of elephant-lion, a composite winged creature with the body of a lion and the head of an elephant (Carvalho, 2004). The motif, Gaja-Simha, is a design that holds a symbolic meaning to the Hindu mythology as it is described as strength and sovereignty (Carvalho, 2004). This distinctly points out that the Mughal artisans valued the relationship of art forms with traditions in India. The different imagination of expression and characters are designed and combined to make one natural motif design. Usually, motifs are repetition of patterns to balance the design layout. Nowadays, Indian artisans have been actively creating motifs and pattern like creeping vines, floral patterns, lotus, conch shells, fish, elephant, and horse that are closely related to the Mughals history and the concept of bringing good-luck, health, and prosperity (Government of A.P., 2018). As being a part of the upper-middle-class family, the aesthetically captivating uniqueness of motifs was desirable to the Shahs and would also resonate with the upper-middle-class category.

3.   Rich materials can be found in Mughal Empire effortlessly due to their appreciation of pieces decorated with mother-of-pearl, inlaid with ivory, embellished with gold and silk fringe, little doors secured with silver padlocks (Carvalho, 2004), delicately carved sandstone and inset multi-coloured precious stones (Michell & Currim, 2007). This rich body of materials leads to historian recognising the Mughal Empire to be one of the richest empires who enamoured luxury and impressive diversity of materials. The painting (Figure 9) illustrates the conversion of a hammam (bathhouse) into a living room in the main residence of the emperors of Mughal dynasty, Red Fort in Delhi. The white marble floor inlaid with flower motifs and is furnished with a bench, a piano or harpsichord, and a collection of glass bottles and other objects (ACSAA, 2018). In a historical context, wooden furniture during Mughals times was usually used for religious purposes (Carvalho, 2004). The Mughal wooden cabinet (Figure 10) , accommodated during the 16th-17th century utilised materials like teak, Indian rosewood, and other exotic woods; natural and dyed ivory; lacquer, and brass fittings; feet inlaid and carved (Borges de Sousa, 2018).

Figure 9. Interior of the Hammam at the Red Fort, Delhi | The Metropolitan Museum of Art

Figure 10. Mughal Cabinet | National Museum of Ancient Art

Figure 11. Court A with a facade of room 3 | Jahangiri Mahal, Agra Fort | William G. Klingelhofer

4.   Texture and finishes at the time of Mughal dynasty experienced changes during the ruling of emperor Akbar, (third Mughal emperor, 1556-1605) took inspiration from Hindu-Muslim art tradition to bring cultural fusion as an architectural aesthetic effect (Jamil & Gulzar, 2017). The buildings of that time were red and yellow sandstone with the insertion of white marble boldly inlaid patterns carved on internal and external wall surfaces seen on dadoes (Jamil & Gulzar, 2017). The balance observed created a unity of the material and finishes qualities that brings out the building's decoration. According to an expression of Jahangiri Mahal by William G. Klingelhofer, "Emerging into the brilliant sunlit space of court A, the sandstone surface springs even more vividly to life; a delicate, ornamental net of sculpted stone is cast over the entire area, spilling with an almost equal intensity onto pillars, brackets, cornices, and ceilings." (Figure 11) (Klingelhofer, 1988, p. 162). Klingelhofer's vivid memory of experiencing the Jahangiri Mahal of the Agra Fort brings familiar points of the feel of a luxurious object and Mughal artisans were able to capture it exquisitely. In a spatial setting, the quality of the surfaces created a unification of contrasting materials and the ability to bring out the character of the building.

This procedure has supported my own development and understanding as a designer by the history, tradition, culture, and experience into the design process for a meaningful design aesthetics in an Indian context. The Mughal style has resonated throuhout the ages in India on account of the high-end aesthetics quality that distinguishes the Mughal Empire. The correlation between colour tones; cultural motif; rich materials; and texture and finishes is an approach to establish the design parameters for this project, a way to connect Mughal luxury with principles of minimalism. The beauty of the object initiates the user's appreciation towards their objects, which ultimately foster the user-space relationship (Xiao, Mou, & McNamara, 2009). Exploring the Mughal luxury aesthetics provided insight to innovate an active object with detailed precisions and to establish this as a service for the users.

The contemporary Indian architect, Balkrishna Doshi believes in gaining the knowledge and learning from the inheritance of their antecedents, rather than copying the aesthetics and practices of different countries. According to Doshi, "It is the desire to become like somebody else," (Frearson, 2017), a concern that current architecture is trying to chase other people designs rather than utilising India's existing rich architecture heritage. In one of Doshi's class, he insisted his students describe the environment in their mother tongue instead of the textbook practice. He noticed a significant difference, as they would say 'This is the place where we sat, we chatted, and we exchanged ideas' rather than ' this is a veranda, this is a terrace, this is a balcony' (Frearson, 2017). The student's description formed a deeper meaning when it was conversed in their mother tongue and showed a stronger user-space relationship. The spaces where activities performed are recognised as active spaces that holds a strong position in user's daily rituals creating a sense of attachment with the space.

In conclusion, one of the key elements for this project is the opportunity to remain practicing Indian tradition of form, structure, construction, colours, motifs, textures, finishes, materials extracted from the 15th century and adapt it with a new design thinking, minimalism. The fusion of luxury and minimalism provide me a balance of traditional and minimal way of living to create a tailor-made site-specific active object that resonates the Mughal dynasty exclusivity, status and wealth into today's contemporary context.

Minimalism: Principles in conjunction with design thinking

From a holistic point of view, minimalism can be defined as a medium that can assist a person in finding freedom, in removing life's excess so one can find happiness and fulfilment (Millburn and Nicodemus, 2018). A minimalist approach is in the desire to find happiness through life itself and not things, determining what is necessary and what is superfluous in 'their' life (Millburn and Nicodemus, 2018). Minimalism is an approach to rediscovering of oneself and one's personal spaces, it can be a method of enhancing social relationships in chaotic spaces, which can in my opinion, nurture a less stressful lifestyle. According to Shaijian Lin, a minimalist thinker, minimalism has been the most influential form of design and influenced the design thinking in the 19th and 20th century (Lin, 2016).

There had been many influencers of minimalism, which included designers and architects that have adopted minimalist approach or design thinking such as Buckminster Fuller, Glenn Parsons, Hartmut Obendorf, but to mention a few. Listed below are the selected practitioners who have contributed to my understanding of minimalism.

Ludwig Mies van der Rohe (Germany) opted for clarity and simplicity in design by following minimum structural framework with lots of free space (Architectuul, 2018). Following the important principles, simplicity and clarity in design gives a balance to the innovation of an object form with a fusion of Indian luxury. Minimalism is more of a simple view that can be formed by utilising an object to maximise its value. In another words, minimalism is to do most with the fewest available objects or materials. Applying minimal construction method to acknowledge the refinement of the design in the available fabrication for its maximum utilisation reclaims the reduction of material.

Donald Judd (US) varied the objects designing by the different quality of materials, different colours and different material costs (Bloemink & Cunningham, 2004). For a design to be attractive, it is essential to have the whole design made with quality, not just sections. Keeping the originality outlook such as the texture of the wood grains with an honesty to the material. According to Judd, a change is usually required when there is dissatisfaction or uneasiness. This project has been based on observations of the uneasiness recognised in my own family. For example, the uneasiness in having food at the bed, uneasiness in having a space occupied by the object, which is rarely used.

John Pawson (UK) highlighted the value of aesthetics and materials in his design, by taking out the visual diversion and focus on the details and ratios of a form. "It is about making rooms, and spaces, about movement, compression, release, proportion, scale, and light, and about the sheer physicality of creating spaces" (Pawson, 1996, p. 13). The statement expresses the necessity of considering each property while designing a minimal space in order to see the foundations flow fluidly together in a single space. The richness of simple design expresses within the creation of the precision in details. Focusing on the detail of a form makes the design uncomplex which give the user an opportunity to view the aesthetics clearly. To physically create spaces, an idealistic approach (Figure 3) should consider the user's fondness of luxury within their space. In a simple space, when all the design elements take place, a good design is considered as a mechanism for user and space to function simultaneously.

One of the renowned architects Ludwig Mies van der Rohe quotes "Less is more" (Schulze and Windhorst, 2012). He further explained that for an architect or designer, it is important to arrange the multiple necessary parts of an active object and create a simple impression of the view of the object which can serve numerous functionalities. On the similar lines, another designer Dieter Rams quoted – "Less, but better". From the quote he created ten principles of "Good Design":

1.   Good design is innovative
2.   Good design create a practical and convenient object
3.   Good design is aesthetic
4.   Good design makes an object justifiable
5.   Good design is unobtrusive
6.   Good design is honest
7.   Good design is resilience
8.   Good design is attention to the details
9.   Good design is biodegradable
10.   Good design is as little as possible (Vitsœ, 2018)

These practitioners have a similarity in their work and philosophies. They believed in finding freedom with less that untraps the user's cultural behaviour with their objects. I believe minimalism is a tool to eliminate the unwanted chaos and pursue the experience contributed by the skilled craftwork to develop that object. Corresponding to the ideations of the design thinking process helps this project to maintain a fundamental system of functionality with aesthetics to achieve a better design result.

FORM
Emphasis on *aesthetic quality*: beauty, perceptional qualities, cultural values and symbolic meanings

FUNCTION
Emphasis on *functional quality*, i.e. utility value: space planning in m^2, subdivision of space and spatial relationships

CONSTRUCTION
Emphasis on *technical quality* of the shell or skin, structure and services and on building physics

Architectural quality in its widest sense: integration

COSTS
Emphasis on *economic quality*, i.e. cost effectiveness with respect to investment costs and running costs

Figure 12. Architectural quality of Minimalism as an integration of function, form, construction and costs | Architecture in Use

The model (Figure 12) indicates the principles of minimalism in the context of an architectural point of view, which correlates to the practitioners of the design thinking mentioned. This model breaks down the principals and qualities of minimalism into four aspects and implies to the parameters extracted from the learning of Donald Judd in cost; John Pawson in construction and form; and Ludwig Mies van der Rohe in function.

1.   Function is a term defined as the ability or power to provide an effective and efficient support for the activities performed by the user (Voordt, Voordt, & Wegen, 2005). The outcome and process of a design is response to the human experience with an active object within their space (Wax, 2008). The qualities of function hold an impact on an object's simplicity and clarity to actualise the user's need to de-clutter and create a user-space relationship. The emphasis on the functionality of an object in this model establishes that an object will be active to perform daily rituals as a third element.

2.   Form, "Form Follows Function", is a well-known movement by Bauhaus that further explains that the exterior façade should be consistent as each interior façade (Craven, 2018). The emphasis is that the objects functionality is normally defined from its shape. Balancing the shape of an object with functionality can further enhance the ability of an object to perform various activities, which creates utility value to the boundaries of the object allocated in a particular space. The users' movements allows me to contextualise form and to create an object with a primary function and multi supporting functions on a single platform that provide accessibility for the user to have everything within reach. This allows the user to experience the objects luxurious aesthetics and detail.

3.   Cost in a minimalist design parameter interprets as an estimated cost in object development, also known as Design-to-Cost (Hiller Associates, 2012). For instance, change in shape, size, materials and finishes during the object development. Thus, the observation and investigation of cost changes were significant to enhance design decision making with respect to cost (Perera, 1989). Rich materials and techniques challenged the designer to involve a high level attention on the design development.

4.   Construction in minimalism involves an observation of the beneath surface of an object, there is a hidden craft that is invisible to naked eye. To frame a solid unit that serves a particular need, two or more surface of wood are joined (Graubner, 1992). Wolfram Graubner, *Encyclopedia of Wood Joints*, mentioned,

> Joints are made where supporting and supported elements meet, where wood must be spliced together, supported or braced and where boards have to be joined together, secured to prevent warp or assembled to make a carcase, the body of the furniture. (Graubner, 1992, p. 1)

Along these lines, re-making existing joint design and exploring various possible joint design will allow designer to be free on designing the body of the object. A well-known English object and furniture designer, Jasper Morisson's recent work, Fugu (Figure 13), a chair that is demanding attention to simplicity, honesty to material and hidden craft. The level of its honesty to material and minimal quality integrates a luxurious experience for the user. The relationship between function, form, cost, and construction is significant in innovating an object based on fusion of minimalism in conjunction with design thinking with the aesthetics

of Indian luxury. Integrating these minimalist qualities actualise the projects aim in which the object design stems from the users need and preference as well as character of the space. The atmosphere of the user's space provides a pattern of language as a guide for me to grasp the users' rituals, style, needs, and desires on an active object.

To understand the context of minimalism, it is important to briefly consider the era of modernism. Modernism advances the hypothesis of minimalism which recommends that the most imperative thing in a design is its functionality. According to Nikolaus Pevsner, an architectural historian, "Only in modernist architecture does today's reality find its complete expression. This expression emerges naturally, inevitably when contemporary materials and methods are employed to produce objects that are functional for contemporary life." (Parsons, 2015, p. 62). In this sense, expressiveness is produced almost as a by-object for satisfying the functional requirements of design problem. Through this process, an active object would likewise accomplish great aesthetic and fulfil the practical necessities to deliver useful objects.

The chair utilises mortise-and-tenon joint technique
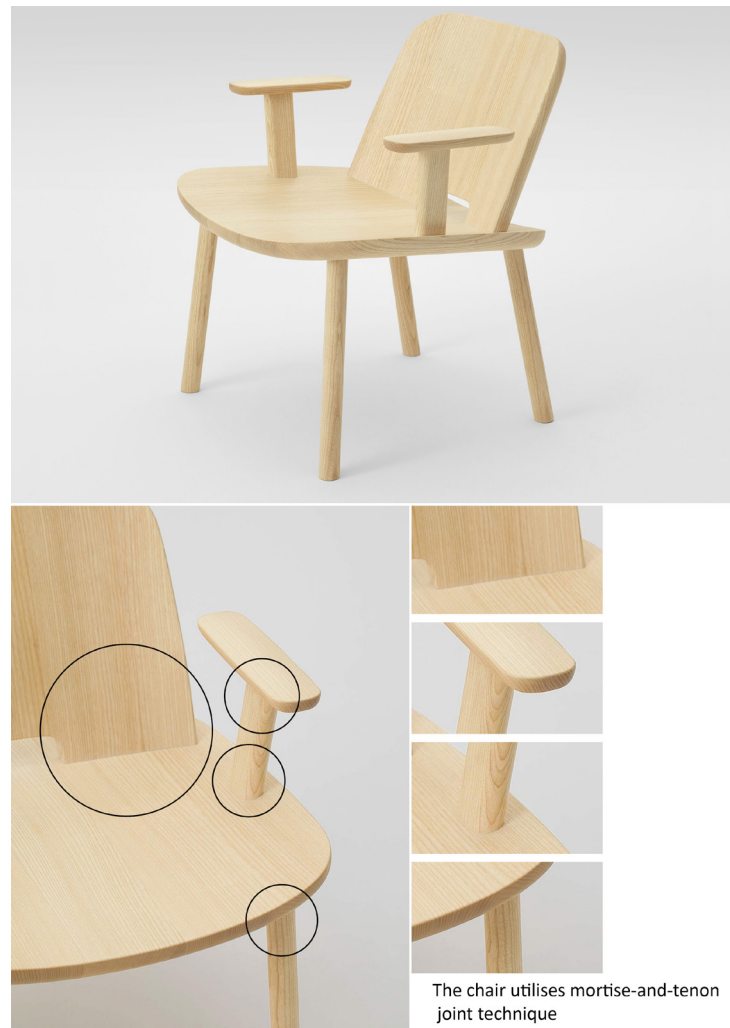
Figure 13. Fugu Chair | Jasper Morisson, 2018

Minimalist design can have many specifications, but there are a few essential ones that are important to good design (VanEenoo, 2011). These are:

1.   Having rich materials: Quality fixtures with rich materials are the first vital requirement to get the design right.

2.   Keeping simple and pure: It is easy to get carried away with the complicated elements of design but minimalism helps to attain simplicity in the right manner.

3.   Simplified craft design: Having a variety of repetitive features of a good design like geometric shapes.

4.   Object hood: Emphasis on the functionality of the object to keep as transparent and simple as possible.

5.   Construction method: Focus on the structure & methods of an object. With the design, it is required to ensure that more is achieved within the limited space for an active object. The space utilisation is the key aspect of minimalism (VanEenoo, 2011).

These specifications generated by minimalism have influenced my methodology to design a tailor-made site-specific active object. In the frenetic energy and intensity of contemporary Indian culture there is a need for minimalism to an individual's life by maximising the utilisation of space to perform various activities and exploring the traditional culture informing the elements of design in Indian context which holds a strong position in my design thinking process. Throughout the history of India there has been key features who have been influenced by a minimalist theory in their teachings and philosophies.

Mohandas Karamchand Gandhi, the renowned Indian civil rights leader repeated advice "omit the unimportant" and to live a simple life is frequently used in design philosophies. According to S. Balaram, Gandhi deliberately redesigned the Charkha and the Chappal when choosing his mud houses (Balaram, 1989). Gandhi improved their form and lessened their appearance to their fundamentals by eliminating all decorations, carvings, and traditional adornments (Balaram, 1989). Gandhi emboided his knowledge and lived a very simple and minimalist life, eliminating the unnecessary objects. His way of living a peaceful life without any chaos is acknowledged. Gandhi's lifestyle influenced Indian people's values with regards to materials, experience, pleasure, responsibility, culture, awareness and feel.

While Indians are primarily known for their decadent designs and their inclination for prismatic and bright colours (Kaho, 2015). Contemporary Indian interior designers have adopted minimalist approach based on the framework of traditional Indian architecture (Kaho, 2015).

From the figure (Figure 14), the fundamental similarity between minimalism and simplicity is where negligible components are utilized adequately to make a potential impact and maximize the design concept. According to the co-founder of Shark Design Studio in Delhi, Avenish Jain explains nowadays luxurious designs are taken into account the needs of modern group to de-clutter (Kalra, 2018). To express contemporary culture, simple lines and gentle colours are pushed forward in designs with an Indian identity.

In conclusion, minimalism is a design thinking process that is practiced by numerous designers with different backgrounds through the expansion in technologies and rich materials. The influencers of minimalism provide me with an understanding of the importance of spaces and the role of objects within these spaces. Minimalism is an experience for the users to discover more creativity with less complexity. Minimalism in terms of its simplicity and clarity leads to a good design allowing its function to work with its aesthetics and keep a balance with the cultural aspects of life. Innovating minimalism into design objects is a vital investment to improve the objects functionality. Pawson emphasis on removing the visual clutter and the unoriginality of detail to appeal the objects apparent solidity with the proportional harmony (Pawson, 1996). The idea of minimalism is appealing which points out the innovation of a simple object being able to hold a great value in terms of functionality. As a contemporary designer I can utilise my skills and knowledge to develop a service that which fills the gap between the design of objects and space, which activates this space through 'active objects'. The concept of minimalism is a perfect key to unpack the complexity of the richness in Indian cultures. Minimalism in terms of power of exposure, a power that allows identifying the object's personality with its perfection and efficiencies while luxury in terms of aesthetics, focuses on the object beautification. This research projects purpose to develop tranquillity and accessibility within the user-space relationship which can be enhanced through a service.
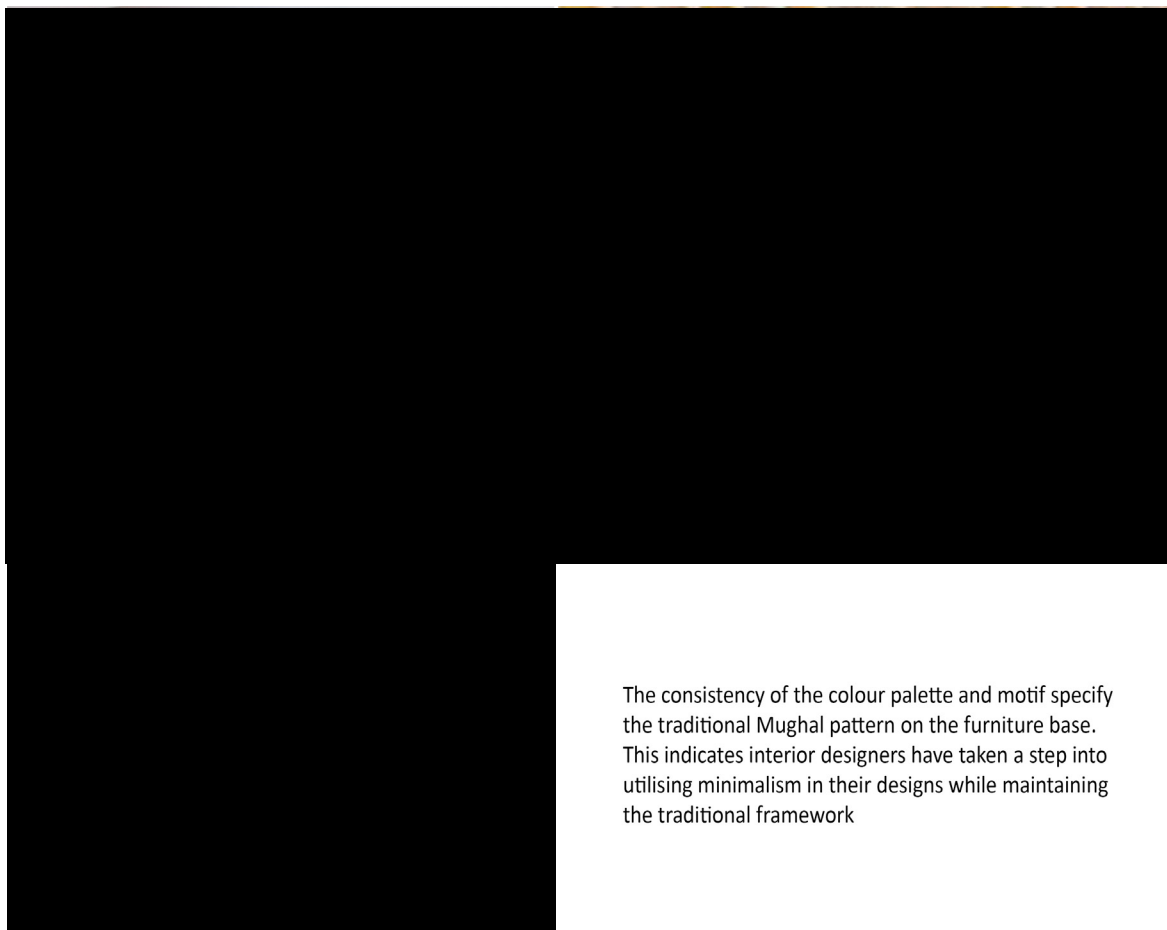
The consistency of the colour palette and motif specify the traditional Mughal pattern on the furniture base. This indicates interior designers have taken a step into utilising minimalism in their designs while maintaining the traditional framework

Figure 14. Apartment space| Chuzai Living

Design Firm	Verve Interior	Architects Design Studio
Services	Interior Exterior Furniture Turnkey	Architecture Interior Landscape
Process	The Brief Space Planning / Concept Design Drawing and Specification Concept Development Technical Drawings Project Management Furniture fitting and extra The Finishing Touch	Client Interaction Concept Plan Space Planning 3D Visualisation Working Drawing Construction Interior Design Completion
Highlight	High end luxury Transforming client's requirements Standard and quality materials Avant-garde design 3-dimensional customised software	Aesthetic invocation Comprehensive construction Advanced structural analysis Elegance style Functionally creative spaces

Table 1. Service features | Verve Interio and Architects Design Studio

Discover Phase: A service

To establish a service in this project, a service analysis has been carried out to understand the current spatial design services available in India:

I.   Verve Interio is an interior architecture firm that focuses on high-end luxurious interior design ideas. The firm conceptualises interiors with space planning in terms of an innovative design for residential and commercial projects. The firm holds a team that generates 3-dimensional customised software's. Design services of Verve Interio are categorised into four, which are interior design, exterior design, furniture design and turnkey. The design service of the firms follows the same process. The process starts with a brief outlining their client's style and tastes through mood boards and financial budgets. Following, space planning that is reviewing and improving the interior architecture of the space with the furniture layout and drawing specific design concepts including technical drawing of floor plans and elevations of the space. Next step is project management to ensure a smooth delivery of the project, the project team assures implementation of the design on site. The process concludes with a detailed spreadsheet including the finishes and application along with the furniture cost is prepared (Interio, 2018).

II.   Architects Design Studio is an architect and interior design firm in obtaining efficient and beautiful designs in sensitive spaces to have a positive impact physically and mentally and improving living standards of the clients. The firm design services are classified into three, which are architecture, interiors, and landscape. The design process has a various stages such as interaction with the clients, concept and space planning, 3-dimensional visualisation, working drawing, construction and execution (Bhatia, 2018).

In conclusion, from the analysis of the design studios (Table 1), it was evident that the collaboration between the user and the designer can establish a better working environment.Discovering the services highlighted by different firms has increased my willingness towards understanding the value of a customers' experience and meaningful improvements in design.

The analysis will help to keep the spatial structure familiar to Indian market. The possibility for acting and thinking differently will allow the user and their practices to engage with the design process and ensure their needs and desire are met accordingly. From a holistic viewpoint; constructive and aesthetic aspect, the combination of minimal principles and luxurious methods will help me to achieve a consistency in the process to design an innovative customised site-specific active object for a user in their space.

SECTION 3

METHODS AND METHODOLOGY

Fusion: Minimal Luxury Approach

The objective of the research project was to develop a methodology to enhance the interaction between the users and their space. Thus, the research project design process has used the Double Diamond model; fusion of minimal luxury approach; qualities of minimalism; Sombart's concept of luxury; autoethnographic case study; and active objects as a method of interrogating the integration of a service outcome. This methodology intends to focus on exploration of an active object following a fusion of minimal design thinking and luxurious resources to establish a service.

My methodology for this project is informed by an amalgamation of the parameters of minimal principles and luxury aesthetics to develop a minimal luxury approach which is primarily concerned with "richness in essentials". The project parameters are derived from the minimal principles of function, form, cost, and construction in conjunction with aesthetics informed by Mughal luxury parameters of colour tones, cultural motifs, rich materials, and texture and finishes. The service will foster a user-space relationship with the help of a third element, activating an existing object, particularly in the Indian upper-middle-class residential spaces. Minimal luxury is an approach to further enhance the state of tranquillity and accessibility within an active domestic space.

My concept review has set the parameters to identify the need for a fusion of minimal luxury approach in an contemporay Indian domestic context to redefining the purpose and identify an existing active object. I intend to innovate an active object that is informed by minimal luxury approach (Figure 15) to redefine the existing active objects construction and aesthetics, resulting in actualising the project aims and objectives.
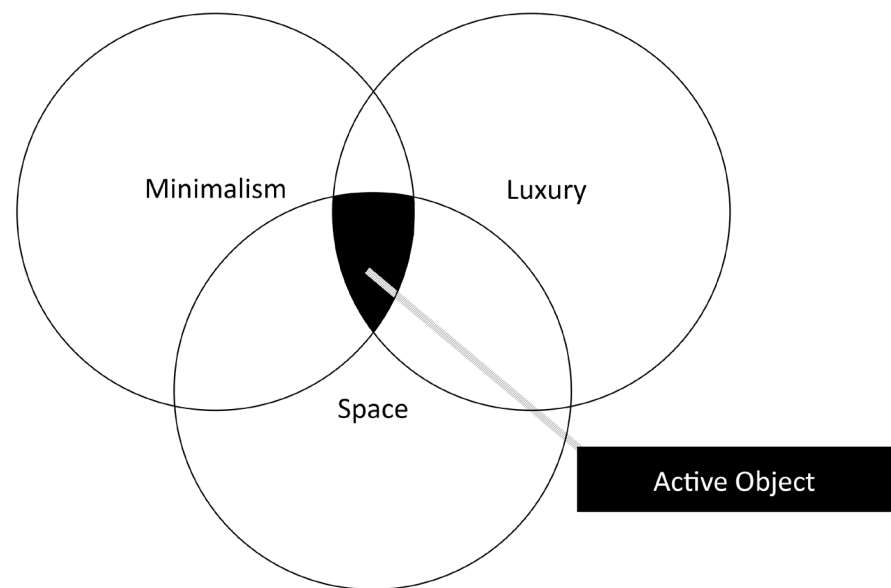
Figure 15. Fusion of Minimal Luxury Approach| Verma, 2018
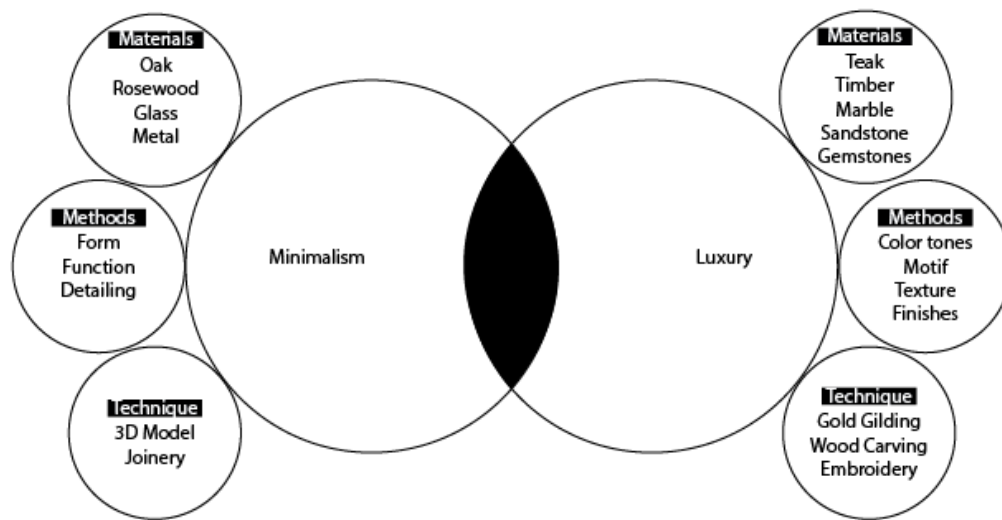
Figure 16. An amalgamation of Minimal Luxury Approach| Verma, 2018
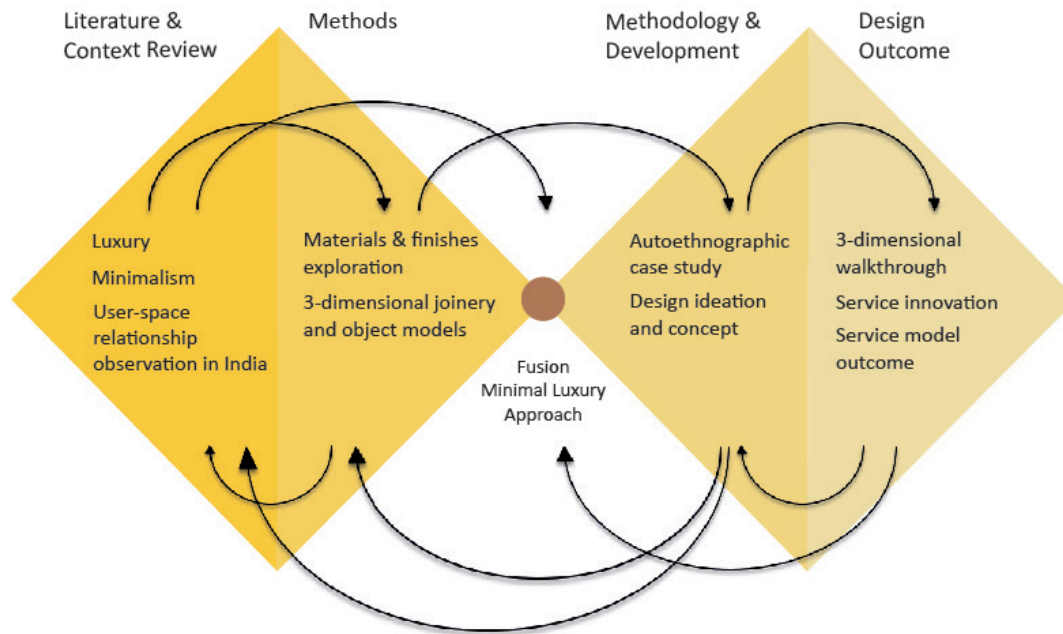
Figure 17. Enriching Spaces | Double Diamond adaption from the Double Diamond Model of Design
 Council | Verma, 2018

The high-end quality of construction techniques and aesthetics of Mughal objects are difficult to ascertain from images alone which has been my primary mode of engaging with this source material. As a practice-based designer it was important to engage with the tacit knowledge gained from constructing prototypes as a method to gain deeper understanding of my topic. This process of 'Critical making' (Ratto, 2018) aimed to reconnect the two modes of engagement with the topic, critical thinking and physical making. I will engage in a process of fabricating replicas of both modern and Mughal traditional objects in order to understand the construction and aesthetics of the objects in relation to Sombart concept of luxury (Figure 3)[refer to page 17] and my selected principles of minimalism (Figure 12) [refer to page 27], (Figure 16).

The double diamond model is a recognised design thinking method and has helped this project to shape an iterative design process to discover the problem, test and refine the ideas a number of times (Figure 17).

In order to actualise and understand the user-space relationship, this project embarked on an autoethnographic study using my family in India as the case study, observing and noting their movements in the house at targeted times. The study of spaces provided an insight of empty spaces, which are ignored at times and occupied spaces, which are active with rituals on daily basis. The multi-layered analysis will trigger practical experiments in developing a different approach to designing innovative services to address challenges (Kimbell, 2014). Converting the knowledge gathered from the autoethnographic case study through the double diamond design process in order to develop a service.

I will employ the use of ritual analysis to conduct activity analysis in order to clarify the nature of the activities and the inner relationship of the user with their space. These findings will help to assemble activities representing different domestic actions: household tasks, active leisure, personal wants and communal needs (Monteiro, 1997) in order to develop my own 'minimal luxury' design methodology as a service for future users.

In relation to the research questions, this project guided my understanding on minimal luxury approach as a method to create a customised site-specific active objects. My purpose is to make use of the objects hidden craft to utilise the available space; and to redefine the existing active objects that allows different functions perform to their full capacity. Further, I aim to push my creative exploration in terms of minimal principles as a conscious designer and my attachment to India's rich culture particularly on Mughal dynasty to follow the fusion of minimal luxury approach for the users to experience this innovative service model.

The problem identified in this project is the rarity of user's interaction within their personal space in homes of upper-middle-class families in India. I will aim to meet the objective of the research based on the process of analysing user rituals and utilisation of an existing active object, protoype development, joinery construction development, motifs development, autoethnographic case study, concept ideations and service development.

Process: Methods
Prototype testing

My design process includes inspiration from the Mughals dynasty and minimalist theories. Prototype models of both modern and Mughal traditional objects in order to understand the construction and aesthetics of the objects in relation to Sombart concept of luxury (Figure 3)[refer to page 17] and my selected principles of minimalism (Figure 12) [refer to page 27] were developed for tables, cabinets and chair. The initial development was identifying materials used such as wood, acrylic, polystyrene, aluminum, paints and cardboard.

Traditional Mughal Furniture
Table 1:

Construction steps:
1.   Cut frames, table top and four legs using laser cut technique
2.   Glue the table top with first frame and followed by the legs
3.   Glue the cardboard with the help of the second frame as a support to the cardboard frame
4.   Illustrate motif design using glue and black ink
5.   Paint with Resene black, white and brown pod

Analysis:
The scenario in the painting indicated that table 1 (Figure 18) is a low height serving table during a celebration by the Mughal emperor. Table 1 has a strong indication on the pattern design and technique of
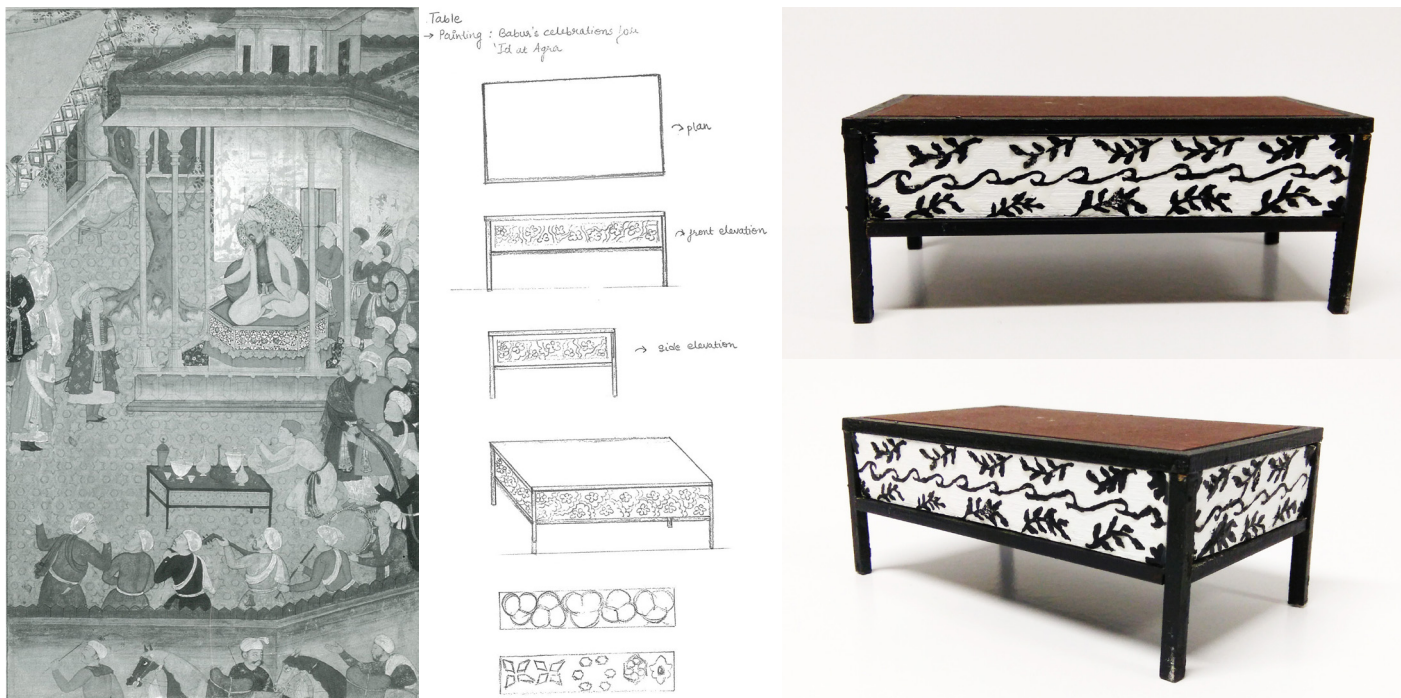
Figure 18. Mughal Table 1 | Painting from Imaging Sound, 1998 | Sketch and Prototype | Verma, 2018

construction. According to the painting, various themes of motifs are identified on the table sides such as geometry; flowers; bird and animals; and calligraphy which correspond to the identified motifs. The motif are repeated and arranged symmetrically to create a balance in composition with the construction principle of minimalism to the object. In terms of techniques, table 1 focuses on wooden carvings technique to crate the motif. The framework was observed while constructing this table as the most appealing aesthetic to me.

Table 2:

Construction steps:
1. Cut the frame, table top, four side panel, four legs by laser cut technique
2. Glue the parts together
3. Paint with Resene irish coffee

Analysis:
The scenario in the painting indicated that table 2 (Figure 19) is a low-height table suited for floor-seating serving and meals. Despite the low-height, the table top has a long and wide surface. Table 2 design was kept simple and clean which was an unusual design approach during the Mughal period. Thus, integrating a fusion of minimal luxury approach, uniting the concept of luxury (Figure 3) [refer to page 17] and the principles of minimalsim (Figure 12) [refer to page 27] as a conspicious design. The point of this table is the U-shaped table legs and pointed motifs. The motifs observed were repeated in a mathematically order showcasing the Mughal Artisan detailed craftsmanship. The different sizes and shapes enhance the construction of this table.

Figure 19. Mughal Table 2 | Painting from Imaging Sound, 1998 | Sketch and Prototype | Verma, 2018

Table 3

Construction steps:
1.   Cut the frame, four side frames, four legs and rectangular frame leg by laser cut technique
2.   Glue the parts together
3.   Gold gilding the table surface grove and paint with Resene brown pod

Analysis:
The scenario in the painting indicated that table 3 (Figure 20) is a standard height table suited for placement of showpieces and meals for a ceremony. There are no motifs visible on the table design which corresponds with my fusion of minimalism in conjunction with design thinking with the aesthetics of Indian luxury. The table focuses on the side frame which consists of three separated wood frames to turn into a single side frame. To support the weight of the table, a rectangular structured single frame leg is constructed and attached to the other four table legs as a support system. The table frame involves a construction of finger-joinery.

Figure 20. Mughal Table 3 | Painting from Imaging Sound, 1998 | Sketch and Prototype | Verma, 2018

Table 4

Construction steps:
1.   Cut the table top, four side frames, four legs and four thin single frame by laser cut technique.
2.   Glue the parts together
3.   Paint with Resene cinnamon and alamo
4.   Gold gilding the table surface and side groves

Analysis:
The scenario in the painting indicated that table 4 (Figure 21) is a long-height table for the purpose of hosting feast at a court. A support system noticeable for the table legs due to its unusual height. The thin single frames provided a support to the long legs ensuring balance and strength of the table. The table emphasis on the exquisite curved leg stand design that looks like a long thin leg of a crane symbolises longevity for its aesthetics beauty which relates to thr form quality of principles of minimialsim (Figure 12)

Figure 21. Mughal Table 4 | Painting from Imaging Sound, 1998 | Sketch and Prototype | Verma, 2018

Table 5

Construction steps:
1.   Cut the table top and six legs by laser cut technique
2.   Cut six 30 degree angle side frames by using miter saw machine
3.   Engraved motifs designs on the surface and sides
4.   Glue the parts together

Analysis:
The scenario in the painting indicated that table 5 (Figure 22) is a low-height table as a purpose of serving drinks for a celebration. Containers like bowls, vase, breaker and ewers were placed of the table top. Hence, the surface is a wide hexagon shape braced with 30 degrees side angled frames. The table legs appeared peculiar as the shape observed to be similar to a goblet form. The engraved motifs are a geometric configuration that occurs in jalis. The aesthetics of Mughal traditional designs were strongly present in table 5.in relation to the form principles of minimalism in conjuction with design thinking process (Figure 12) [refer to page 27]
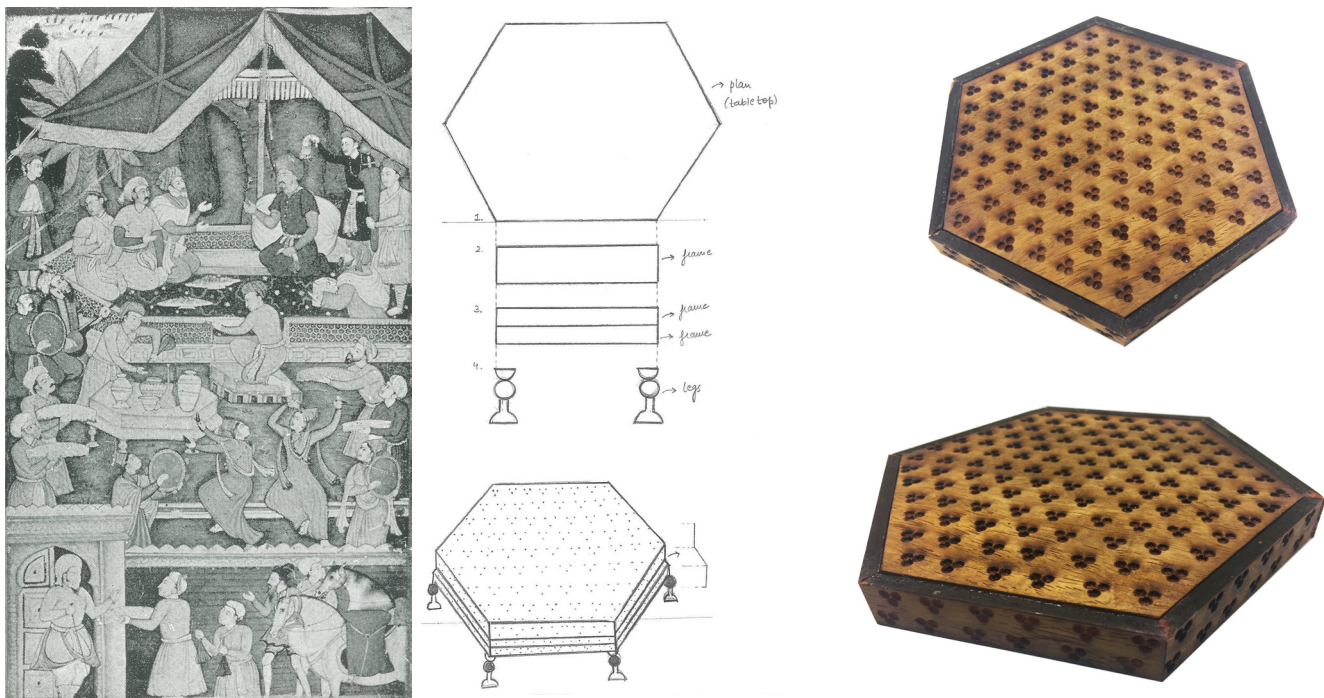
Figure 22. Mughal Table 5 | Painting from Imaging Sound, 1998 | Sketch and Prototype | Verma, 2018

Qalamdan

Construction steps:
1.   Cut the top, four side frames, four legs and base by laser cut technique
2.   Engraved motifs designs on the surfaces excluding the base
3.   Glue the parts together

Analysis:
Qalamdan is a writing chest with calligraphic decoration (Figure 23). The original chest is made of wood with mother-of-pearl inlays. The writing chest had a smooth decorative top surface for writing purposes with a storage compartment in it, to store the working and writing materials. The writing chest structure allows to understand the beauty of motifs and the focus of the precised construction detail of the curved L-shaped legs detects a minimal luxury approach.

Figure 23. Qalamdan, Writing chest | Athens, Benaki Museum | Prototype | Verma, 2018

Cabinet with Hunting Scene

Construction steps:
1. Cut the top, four side frames, base and seven drawers by laser cut technique
2. Cut eight round handles by laser cut technique
3. Engraved motifs designs on the surfaces
4. Glue the parts together expect the front opening of the cabinet

Analysis:
The cabinet from the early 17th century consisting of eight drawers (Figure 24) is solely for storage purposes. The motifs on the cabinet show running huntsmen aiming rifles at fleeing tigers and deers. The hunting scene engraved and designed on the prototype cabinet is inspired from the original picture. The hidden drawers make the cabinet to be more appealing even though it looks like a single box at first glance. The cabinet shows an appreciation to hidden craft which relates to the construction aspects of minimalism (Figure 12)

Figure 24. Cabinet with hunting scene | Cincinnati Art Museum | Prototype | Verma, 2018

Chair 1

Construction steps:
1.   Cut the one sitting surface, two base, one back seat and sixteen side frames by laser cut technique
2.   Engraved motifs designs
3.   Glue the parts together
4.   Paint with Resene MET gold dusk

Analysis:
The scenario in the painting indicated that chair 1 (Figure 25) is a tall-height chair made for a mother and a child. The height of the chair symbolise the Mughal emperors must sit above the ground level height from the locals to indicate the pride, respect and royalty. The locals could look up and see their emperor even from a distance. The motifs are arranged symmetrically in lines to create a parallel design on the base structure.
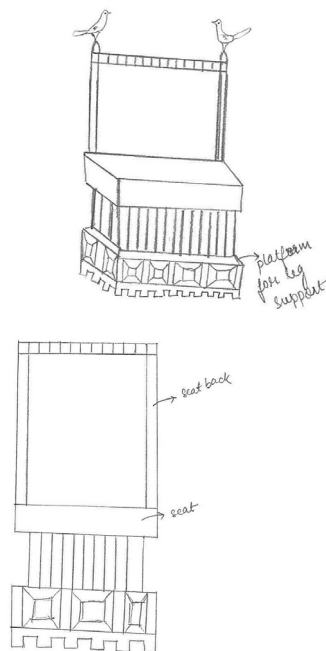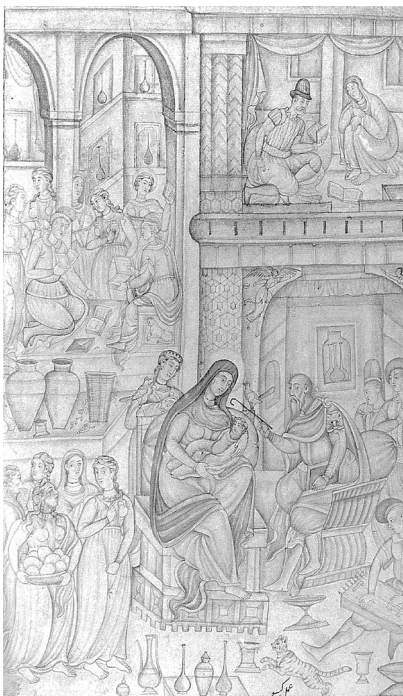
Figure 25. Mughal Chair 1 | Painting from Imaging Sound, 1998 | Sketch and Prototype | Verma, 2018

Contemporary Tables by Jasper Morrison

I have been inspired by the work of Jasper Morrison, in particular the objects that are not purely defined by either aesthetics or functionality but a combination of materials, human experience, effects of the surrounding and communication purposes (Morrison, 2002).

Low Air Table
Construction steps:
1.   A structured frame cut by laser cut technique
2.   With the help of thermoforming machine, place the frame to melt the material and bend it according to the 90 degree angle

Analysis:
A low air table (Figure 26) made of gas-injected polypropylene. As an alternative material, I have used matte finish acrylic for the construction of the table. The construction method of the table consists of less waste material and simple form. No joineries were visible on the table because the air was injected to mold and shape the tables sides. This interpret instructions to ensure that seamless structure can look good without any joints or angled table legs establishing a minimal luxury approach.
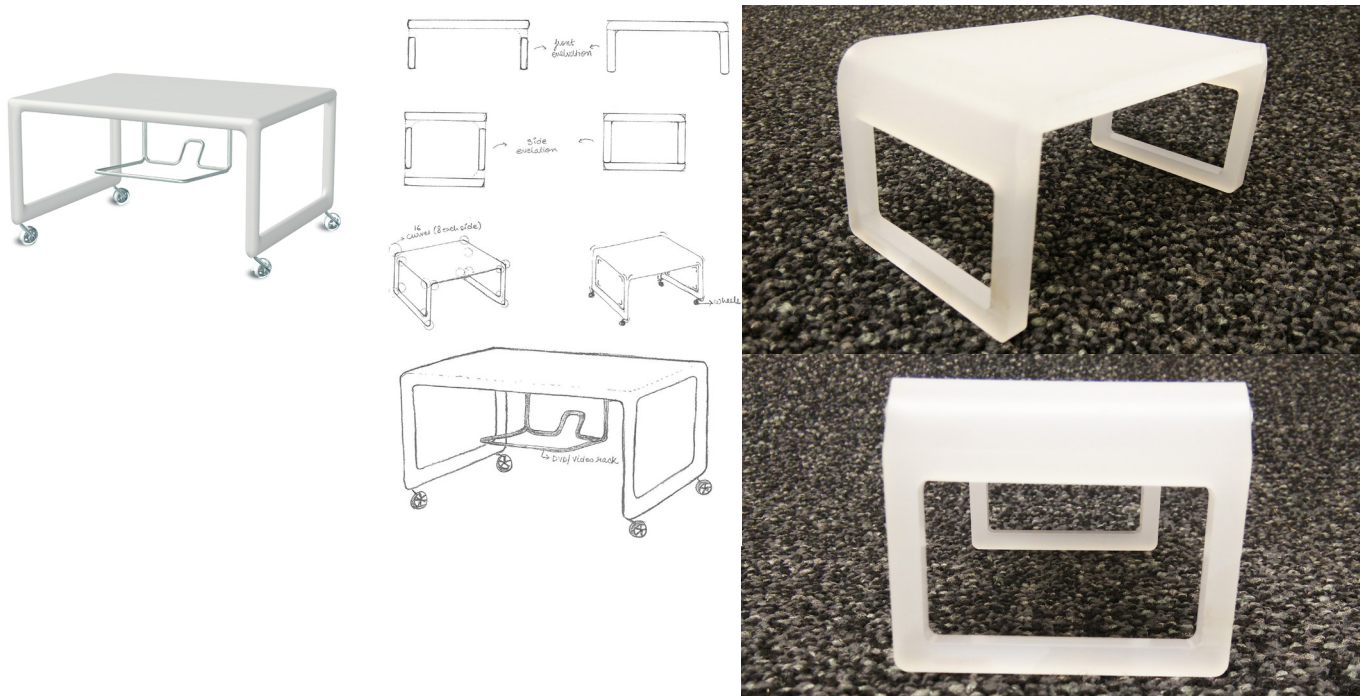
Figure 26. Low Air Table | Morrison, 2002 | Sketch and Prototype | Verma, 2018

Plate

Construction steps:
1.   Cut the table top, four side frames, four corner L-shape frames and four legs by laser cut technique
2.   Glue the parts together

Analysis:
The top of the table consists of various material option like marble and oak while the base of the table is made of cast-aluminium. I have used MDF for the table surface and white acrylic for the frame and legs. Plate Dining table (Figure 27) has a fine balance of proportion with a subtle mix of planes and curves. The main frame is conjoined to the L-shape frames giving support to the table weight due to the thin structure of the legs. The table appears to be contemporary and classic which leads to its elegance and graceful structure which relates to the principles of minimalism keeping it simple and pure.

Figure 27 :Plate Table | Morrison, 2004 | Sketch and Prototype | Verma, 2018

Pirandello

Construction steps:
1.   Cut the table top, two side wide legs and back by laser cut technique
2.   Glue the parts together

Analysis:
This writing desk (Figure 28) is designed with natural grace using materials like transparent extralight glass or double faced extralight acid-etched glass tempered and thermo-welded. As an alternative material, I have used transparent acrylic to have the same glass effect similar to the design. The curvy sides of the table gives a secure and delicate shape in terms of glass safety and style. The transparent structure allows the object to interact with light and create an illusion of a table to make the space look unoccupied by keeping it simple and pure.
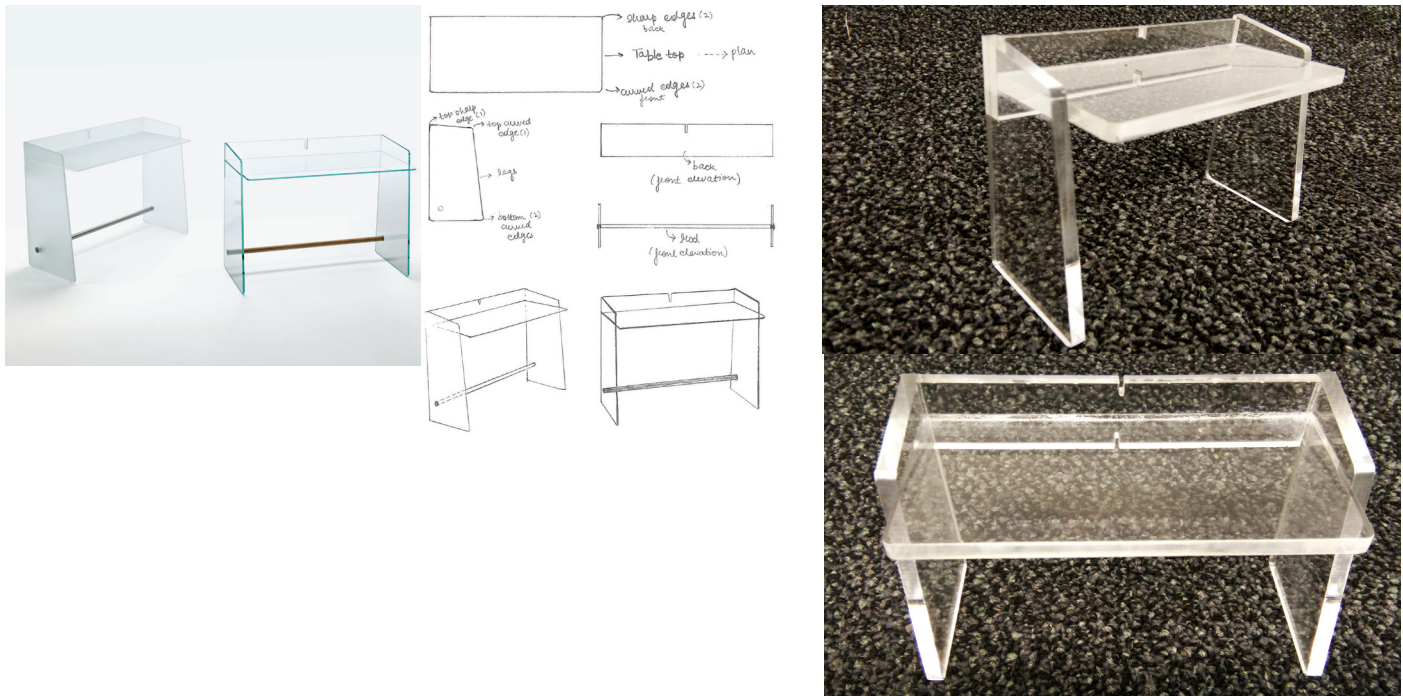
Figure 28. Pirandello | Morrison, 2013 | Sketch and Prototype | Verma, 2018

Flower Pot Table

Construction steps:
1.   Cut the table top by laser cut technique
2.   Cut and shape the base using Lathes machine and chisel
3.   Paint the base with Resene cinnamon
4.   Glue the parts together

Analysis:
This table was originally designed following the shape of a flower pot(Figure 29). The table consist of a single terracotta molding and a glass top aiming for simplicity. The terracotta wood is a light material despite looking like a heavy solid. As Jasper Morrison says, everyday objects need to be made light and soft (Brimstones & Treacle, 2012). As an alternative material, I have used terracotta wood and transparent acrylic. The unique structure of the base transforms the table's look, exclusive and admiring establishing the judgement of luxurious aesthetics.
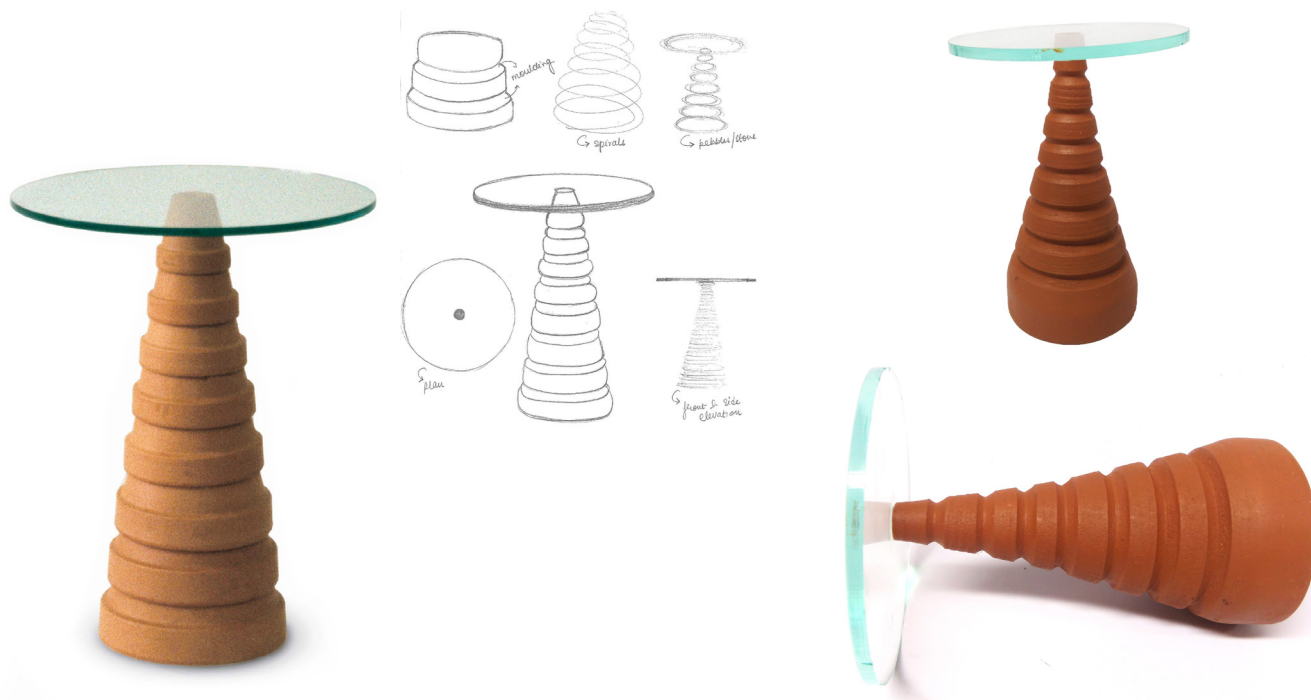
Figure 29. Pirandello | Morrison, 1984 | Sketch and Prototype | Verma, 2018

Gamma Table

Construction steps:
1.   Cut the table top, two side frame and four legs by laser cut technique
2.   Shape the two side frames at 45 degree angle using miter saw machine
3.   Paint the table with Resene brown pod
4.   Glue the parts together

Analysis:
Gamma (Figure 30) is a wooden table with an internal metal frame. The dining table is a polyester-painted or oak-veneered. As an alternative material, I have used MDF for the construction of the outer structure. I observed the design aesthetic strongly leans toward modernism. Through initial visual investigation the sleek form of the table, long table surface and thin legs do not appear to aid the stability of the table. Upon further investigation through constructing the table, I discovered an internal frame, with joinery which integrates an important function adding stability to the long sleek table. This corresponds with notions of minimalism in relation to the detail in the functionality of the hidden craft.

Figure 30. Gamma | Morrison, 1999 | Sketch and Prototype | Verma, 2018 Council

Contemporary Storage Units by Piero Lissoni
Commodore

Construction steps:
1.   Cut the top,base, three side frames, four legs, two shelves and two sliding door by laser cut technique
2.   Striped patterns on each surfaces by laser cut technique
3.   Groove one edge of the top and bottom surface by laser cut technique
4.   Drill two holes on the sliding doors using the vertical boring machine
5.   Glue the parts together

Analysis:
Commodore (Figure 31) is a sliding storage unit with two shelves made of striped and checked glass, tempered and glued 45 degrees with mirror lacquered details. The storage highlights a transparent and tempered appearance to use natural or artificial light to display the various shades and textures of the storage. The sliding doors run on the grooved tracks for easy access to the shelves with a small circular opening. The shelves are not fixed on the side frames, they are slot into rectangular cuts on the sides. Commodore exhibit pure elegance and classic design which corresponds to the munimal luxury approach.
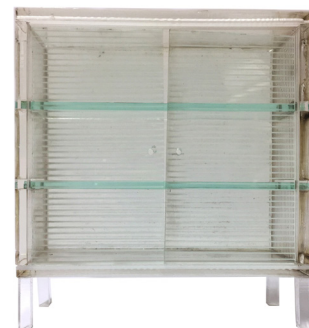
Figure 31. Commodore | Lissoni, 2016 | Prototype | Verma, 2018

255 Flat

Construction steps:
1.   Cut the top, base, three side frames, four legs, four leg side frames, two drawers and two round knobs by laser cut technique
2.   Paint the the table with Resene brown pod
3.   Glue the parts together

Analysis:
255 Flat (Figure 32) is a family container unit, the collection has been revised to enhance its style, technical details and the expansion range. The storage element with two large drawers has been established for various storage purposes. The table can be produced in different materials and sizes to accommodate the requirements of varied users for different usage. As an alternative material, I have used MDF for the table's structure. The supporting frame at the bottom made of aluminium in order to support the weight of the storage unit is the most appealing aesthetic for me as it give a strong infkuence of apriciation the construction with rich material. This proves to me that with a supporting frame, the top structure can be bigger than the bottom structure.

Figure 32. 255 Flat | Lissoni, 1999 | Sketch & Prototype | Verma, 2018

Joinery construction & motifs development

From the experimentation of prototypes, I discovered that the construction of joineries and motifs are an important aspect of an active object that can be used for further concept exploration. I adapted joinery techniques from minimalist contemporary object and principles in conjunction with developing motif design from Mughal inspired objects.

Aside from the functionality of the joinery (Figure 33), the form of joinery adds to the beauty of the object incorporating the movement of "Form Follows Function." Joinery can be seen as an example of hidden craft to create an uncomplicated innovation as a minimalist design thinking approach. The joint system intrigues the complexity of construction by avoiding nails and apply glue to connect the joints together. This application provides a neat and precise finish to the joint and the object (Spagnuolo, 2013).

Figure 33. Dovetail Joint | Cahill, 2016

Miter Butt Joint

In conjunction with Sombart concept of luxury (Figure 3) ^{refer to page 17} , the rich materials used for this joint (Figure 34) are american oak and aluminium as an alternative to steel. Three pieces of wood are butted together at 45 degree angle and the end grain of the material is visible. An important aspect of this joint is to ensure a precise cut of the angle. I used a thickness planer machine to get wide board mostly flat according to the thickness required and a table saw machine to rip the boards into pieces and to create a deep L-shaped dent to fix the internal frame. Then, a miter saw machine was used to perform the installation of 45 degree angle. To achieve a smooth and consistent surface, finishing up with sanding using #220-grit paper, #320-grit paper and #400-grit paper. Finally, I glued all the parts together at the same angle with the help of G clamps to accomplish a perfect edge joint. In addition to strengthen the frame, a steel internal frame added to the joint. Highlight the natural grains of the rich oak material with beeswax furniture polish to get a soothing and sparkling shine and to acknowledge the essentials of the rich material.

Figure 34. Miter Butt Joint │Verma, 2018

Doweled Butt Joint

The three pieces of wood are butted together at 90 degree angle. An important aspect of this joint (Figure 35) is the common construction in both frame and carcase to improve the butt joints. I used a thickness planer machine to get wide board mostly flat according to the thickness required and a table saw machine to rip the boards into pieces. The dowel is reinforced in the butt joint with the help of a hollow-chisel mortiser machine which operates to drill holes. To achieve a smooth and consistent surface, finishing up with sanding using #220-grit paper, #320-grit paper and #400-grit paper. Finally, I glued all the parts together at the same angle with the help of G clamps to accomplish a perfect edge joint. Highlight the natural grains of the rich oak material with Beeswax furniture polish to get a soothing and sparkling shine and to acknowledge the essentials of the rich material.

Figure 35. Doweled Butt Joint | Verma, 2018

Finger Joint

The two rectangular pieces of wood are glued together and interlocked at 90 degree angle. The highlight of a finger joint (Figure 36) is its contribution to the objects aesthetics contributing to the subjective judgement of the concepts of luxury (Figure 3) ^{refer to page 17}. I used a thickness planer machine to get a wide board of oak mostly flat according to the thickness required and a table saw machine to cut the boards into two pieces. The fingers are marked with a pencil to give direction while cutting the joint in a straight line with the help of mill machine. A chisel was used to clean up the crack and to make the fingers fit together at the right angle. Finishing up with sanding using #220-grit paper, #320-grit paper and #400-grit paper. Finally, I glued all the parts together at the same angle with the help of G clamps to accomplish a perfect edge joint. Highlight the natural grains of the rich oak material with Beeswax furniture polish to get a soothing and sparkling shine and to acknowledge the essentials of the rich material.
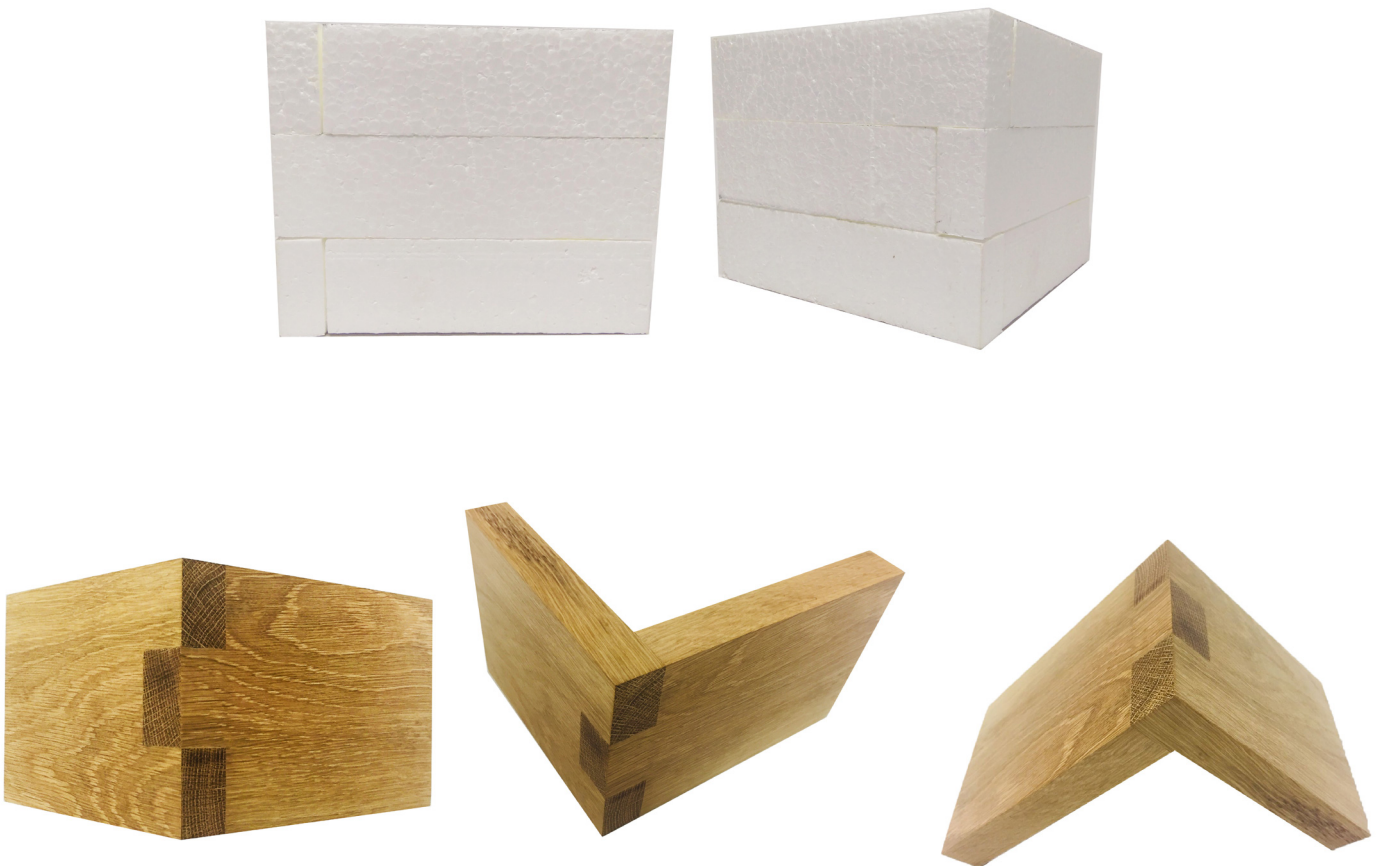
Figure 36. Finger Joint | Verma, 2018

Additionally, as per Sombart's concept of luxury (Figure 3) refer to page 17 , the development of motifs from Mughal design is central to the innovation in my project. It acts as a method of referring to Indian tradition in a contemporary context.

My approach was to analyse the motifs of Ham pattern and Victorian ornament pattern to understand the intensity behind the making of objects with the purest form of gold during the Mughal dynasty. Thus, I got samples from India to experience the texture, finishes, materials and design and get a better visual understand of motif. I began my exploration by construction these motifs (Figure 37) on basic materials and applying the gilding technique in small scale prototypes. The motifs of Ham pattern and Victorian ornament pattern were engraved on MDF and colored acrylic using laser cut technique. This allowed me to think critically the practice of woodcarving and gold gilding in relation to an active object. The technical characteristics replicated the creation of motif patterns and the degree of gilding.

Figure 37. Motifs and Gold gilding | Verma, 2018
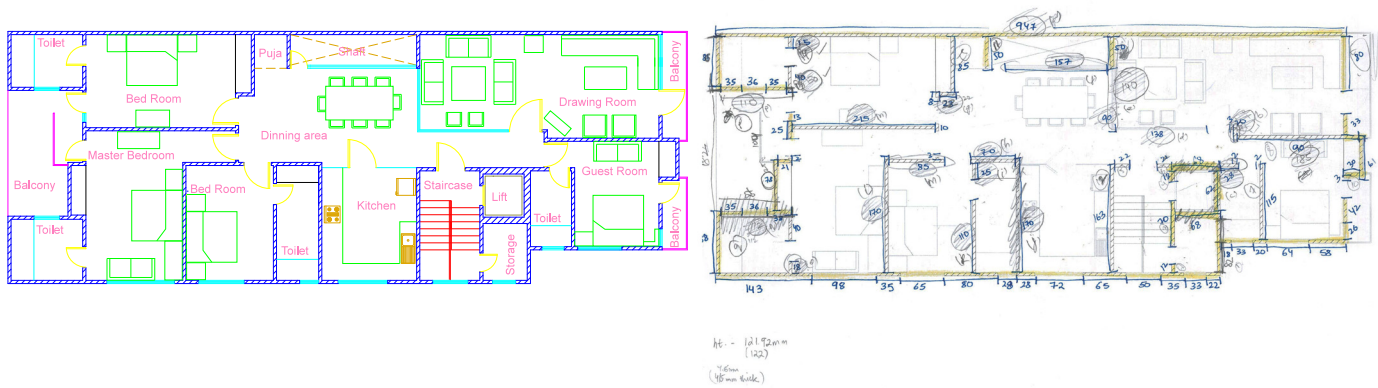
Figure 38. 2-dimensional plan | Verma, 2018

Figure 39. 3-dimensional model | Verma, 2018

An autoethnographic case study

I conducted an autoethnographic case study research, in order to understand the daily routine of a group of upper-middle class people in their domestic environment in this case my family. As a result, I managed to outline movements of each family member considering their requirements and rituals. The study of auto ethnographic case is shown through a process of various analysis conforming the sanctuary analysis by spatial proximity; user analysis by mapping the users movements at different time slots; ritual analysis by a visual gallery of activities performed by all family members; active object analysis by prototyping tables, cabinets and chair; and service analysis. Each analysis was documented which helped to refine the methodology design process.

Throughout the analysis, I have identified various methods of exploration through the study of 2-dimensional plan (Figure 38) on AutoCAD software and a 3-dimensional structure (Figure 39 & 40) of the residential space at a scale of 1:25 to develop a visual reference for better understandings.

Figure 40. 3-dimensional rendered plan | Verma, 2018

Figure 41. Pillars construction | Verma, 2018

Figure 42. Pre-constructed shaft | Verma, 2018

Figure 43. Present shaft outlook | Verma, 2018

Figure 44. User-space relationship | Verma, 2018

	ENTRY	LIFT	STORAGE	DRAWING ROOM	GUEST ROOM	GUEST ROOM TOILET	DRAWING ROOM BALCONY	GUEST ROOM BALCONY	DINING AREA	SH
ENTRY										
LIFT										
STORAGE										
DRAWING ROOM										
GUEST ROOM										
GUEST ROOM TOILET										
DRAWING ROOM BALCONY										
GUEST ROOM BALCONY										
DINING AREA										
SHAFT										
PUJA										
BEDROOM 1										
BEDROOM 1 TOILET										
BEDROOM 2										
BEDROOM 2 TOILET										
MASTER BEDROOM										
MASTER BEDROOM TOILET										
BALCONY										
KITCHEN										
STAIRCASE										

Figure 46. Spatial proximity | Verma, 2018

I. **Spatial Analysis** is considered as a part of this case study to analysis and understand my residential space. According to WKMC Architects, physical features such as location, size, topography, supportive infrastructure, easements and accessibility attain site analysis (WKMC Architects, 2018). The purpose of analysing the space is to understand the pre-constructed areas and the technical construction (Figure 41) of the structure that cannot be changed. For example, the pre-constructed areas like shaft (Figure 42) and pillars cannot be technically constructed again but can change the outlook of it (Figure 43). Although, using a design thinking method, these areas can be changed, altered and manipulated for a better relationship between the user and their space. For this project, the two factors considered for analysing the findings are:

i. The relationship between the spaces through users (Figure 44)
ii. Spatial proximity (Figure 45)

Following are the observations using a method of color coding: Strong; Moderate; Weak & Remote (Figure 46).

Figure 45. Spatial proximity | Verma, 2018

Figure 47. Bedrooms in proximation | Verma, 2018

Figure 48. Exposed dining table | Verma, 2018

Father
50 years

Mother
46 years

Myself
24 years

Sister
20 years

Domestic Assistant
34 years
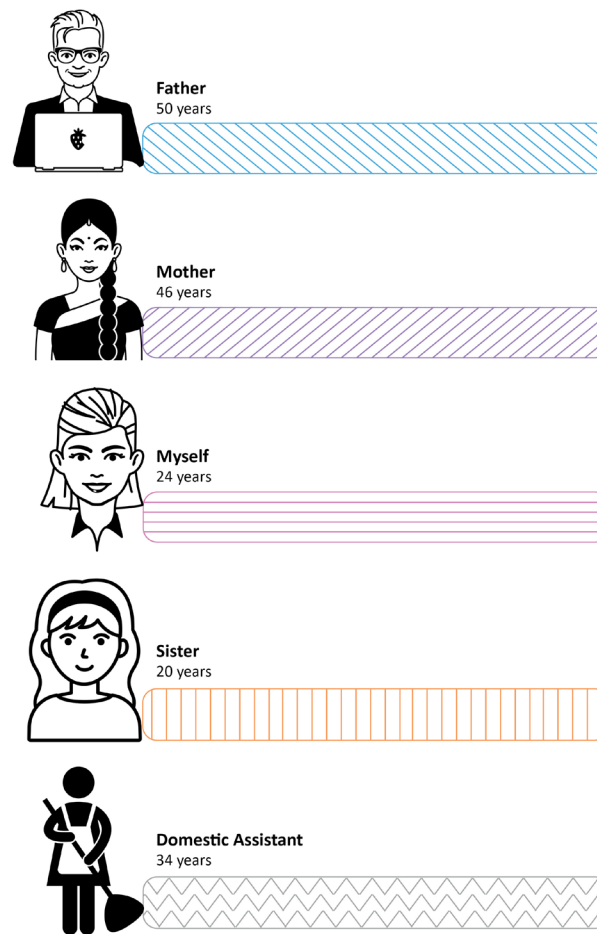
Figure 49. Family members, Users | Verma, 2018

i.   The three main bedrooms are in proximation (Figure 47), in comparison to the front bedroom (guest room).

ii.   The drawing room balcony and guest room balcony are really far off, and would be used for privacy.

iii.   The drawing room and guest room is mostly used for hosting, as they are dedicated for formal visitors.

iv.   From the entrance, the left part of the house has more movement than the other half on daily basis, as the functional spaces for all the family members are on the left side of the house and it's habitual to move around freely within your space.

v.   Understanding and awareness of the basic situations taking place in my family in their daily life. For example: mother moving around the house to every space for religious purposes.

vi.   The symbiosis of aesthetics, functions, craft, techniques, trend, style, environment with the networked human inhabitant.

vii.   Perceive and understand spaces through the interaction of multiple design elements.

viii.   Develop an alignment of personal values, habits and everyday rituals.

ix.   Attention to the details, exposure, and balance of spaces.

•   Detail: detail of operating the dining table and drawing room for formal meals during hosting.

•   Exposure: exposure of the dining table for different purposes. (Figure 48)

•   The balance of spaces: balance of the three bedrooms; parents and children.

Conclusion:

i.   Distance

ii.   Human behaviour

II.   **User Analysis** as stated by Jasper Morrison and Naoto Fukasawa is to outline objects that are most honest and can enhance individual's lives by providing the functions they really need (Brown, 2016). As part of the study, I analysed the movement of all the five members- my father, mother, myself, sister and domestic assistant (Figure 49) based on their daily routine. I established six time slots and allocated the member's activities. As observed, all the five members have very distinct movement during all hours. Although some areas are frequently visited by all five members, leaving some spaces not often used.

Out of the six-time slots that I established, four slots- 6 a.m. to 10 a.m., 6 p.m. to 10 p.m., 10 p.m. to 2 a.m. and 2 a.m. to 6 a.m. are mostly used by all members coherently but for different activities.

Following:

i.   6 a.m. to 10 a.m.: members moved frequently around the kitchen basically for cooking activities (breakfast); the bedrooms, the master bedroom and their respective toilets and everyone was seen in the Pooja area for religious prayers. Only my mother was observed to have gone through the guest room to the balcony for religious purposes.

ii.   6 p.m. to 10 p.m.: During this period, the massive movement is observed from the entrance to the bedrooms and their respective toilets. This is quite expected since people who return from work or outings would want to refresh themselves. Movements by all family members are also spotted in the dining area. Everyone ate at the dining table and then relaxed in their respective bedrooms. Sometimes, after a tiring day, members would prefer to eat and relax in their respective or others bedroom.

iii.   10 p.m. to 2 a.m.: Movement is restricted to the bedrooms alone. Everyone having their own

Common Spaces
Dining Area
Bed Room
Kitchen

Figure 50. Common spaces | Verma, 2018

Uncommon Spaces
Drawing Room
Guest Room
Balconies

Figure 51. Uncommon spaceas | Verma, 2018

recreational time in the bedrooms like watching television, listening to music, talking to each other, on the phone or laptop, but to mention a few; or sleeping.

iv.   2 a.m. to 6 a.m.: Family members are observed moving between bedrooms and their respective toilets, apparently for late night use or freshening up for the new day.

Conclusion:

i.   Common spaces (Figure 50)
•   Bedroom
•   Dining Area
•   Kitchen
ii.   Activities performed

III.   **Ritual Analysis** involves observation of user's activities. According to Dr. Circe Gama Monteiro, activity analysis clarifies the nature of the activities and the inner relationship of the user with their space. Some of these findings help to assemble activities representing different domestic actions: household tasks, active leisure, personal wants and communal needs (Monteiro, 1997).

As per my understanding, I noted the patterned movements of five members of my family, which aims at exploring various activities that are conducted in the common spaces.

Following:

i.   Sleeping/ Resting – This accounts for the frequent use of the bedrooms. Depending on the time of the day and the entire day routine which is also affected by the external surroundings and internal environment, it affects the users sleeping behavior whether they use the bed for sleeping or other object like the couch for resting.

ii.   Leisure– This also accounts for the frequent use of the bedrooms and dining area for individual purposes or for all family members to gather together. While performing this activity, members use various objects like a bed, table, chair, couch and few more (Figure 52).

iii.   Dine – This was seen to be prominent only between 6 p.m. to 10 p.m. for all family members to eat together. Mostly dining table is used to perform the dining activities but sometimes members prefer to eat on the bed or couch after a hectic day (Figure 53).

iv.   Religious prayers (Pooja) – My family makes our religious prayers and is only seen in the pooja corner area during prayer time, performed anytime during the day (Figure 54).

v.   Working – This accounts for the use of dining table, the center table in the drawing room or a lap desk on the bed in the bedrooms if someone works after hours.

vi.   Hosting – This accounts for the use of the drawing room, dining area, and guest room. Depending on the close relationship with the guests (Figure 55).

Each family member performs a certain activity in the identified common spaces at different times. Interestingly, the movement of the domestic assistant is restricted to the private spaces. Also, the daily activities performed by her are significantly at a different time than the other family members. Thus, a critical observation based on the prominent/ evident activities, which are performed in uncommon spaces (Figure 51).

i.   Guest Room
ii.   Drawing Room
iii.   Balconies

Figure 52. Leisure | Verma, 2018

Figure 53. Dine | Verma, 2018

Figure 54. Religious prayers | Verma, 2018

Figure 55. Hosting | Verma, 2018

Figure 56. Interaction with existing active objects while performing activities | Verma, 2018

No family members seemed to have often movement or contact with these areas. Although, my mother conducts religious prayers (6 a.m. to 10 a.m.) in the balcony extension of the guest room. Based on the findings and the close observation of the activities performed, I conclude that activities like sleeping and working are not performed at the same time at the common spaces.

Conclusion:

i.   Identification of common activity.

ii.   Interaction of user with an active object placed in a space.

IV.   **Active object Analysis**, as observed from the previous analysis exercise, there is a presence of an active object. Therefore, in this section, I have studied the active object analysis as stated by Hartmut Esslinger, "products are not for themselves, products are for us" (Hout, 2006). It looks into the identity of an object and how it affects the user's relationship with their space.

Three major active objects were observed to have influence in user's daily routine:

i.   An elevated flat surface: Table

ii.   A sitting: Chair

iii.   A storage: Cabinet

This is a method that I implied on my own family to know a process for an object development, which can be relevant and important to build relationships. These objects would be technically and functionally strong but there is a scope of redefining the purpose of each object through addition or modification of form and utility based on each family's case study.

Conclusion:

i.   The objects placement

ii.   Objects used for different purposes

iii.   User indirectly interact with space through an object (Figure 56)

Following from the findings of this autoethnographic case study, I observed that the users perform various activities at different time slot in their spaces by the interaction with an existing active object. For instance, user found the bedroom to be an active space to multi-task activities like eating, working, sleeping and leisure on one object, which is the bed. According to the user, the bedroom's bed holds a lot of character, where the user feels completely comfortable and relaxed. Most individuals do not like to spend much time dealing with or using a system and failing at it, or getting frustrated by it; rather, they would prefer to use something, which is simpler and easily accessible.

Development of ideations & concepts

The observation and analysis from the autoethnographic case study and the exploration of minimal luxury approach bolstered my understanding the role of an existing active object in achieving an innovation of a form. I facilitated the learnings to assist my innovation of an active object development. Iteration of prototypes were performed based on the constant reviews on the identification of errors during the process of development.

The starting point of my ideation was to design an innovative active object which would enhance the interaction between the users and their space. The observation helped me to understand an existing active object and to redefine the active object. In my process of idealising, I guided my understanding with a few quick sketches to establish a concept development.
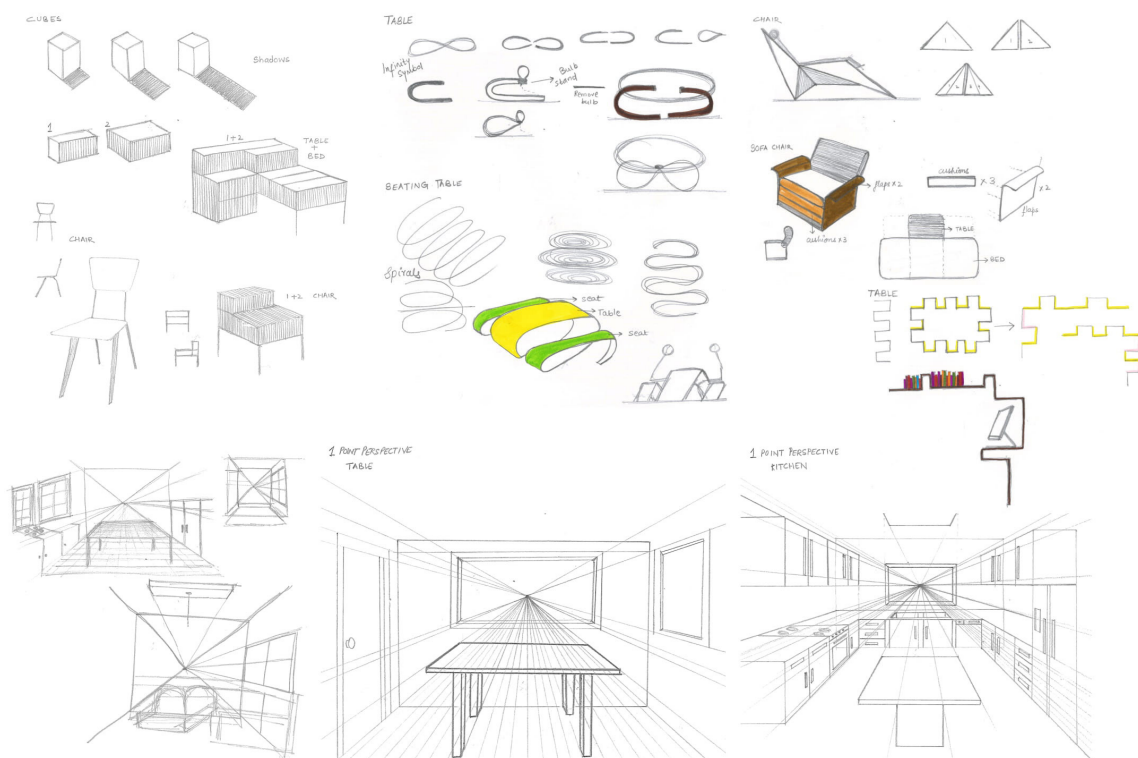
Figure 57. Preliminary sketches | Verma, 2018
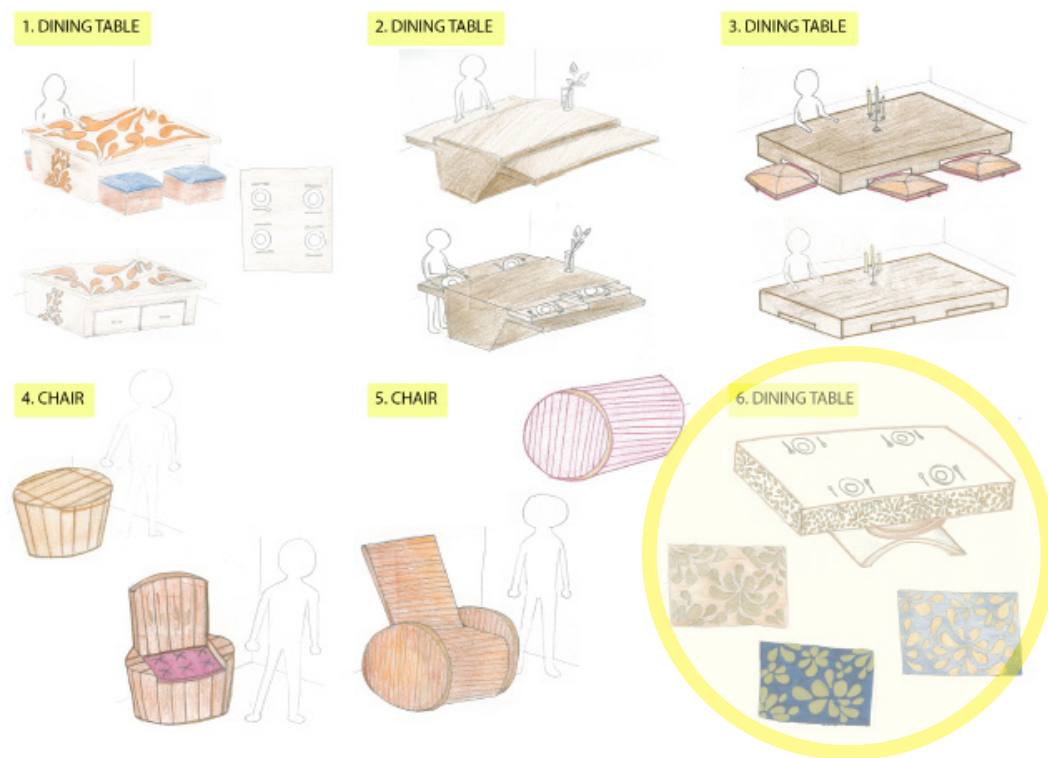
Figure 58. Preliminary sketches | Verma, 2018
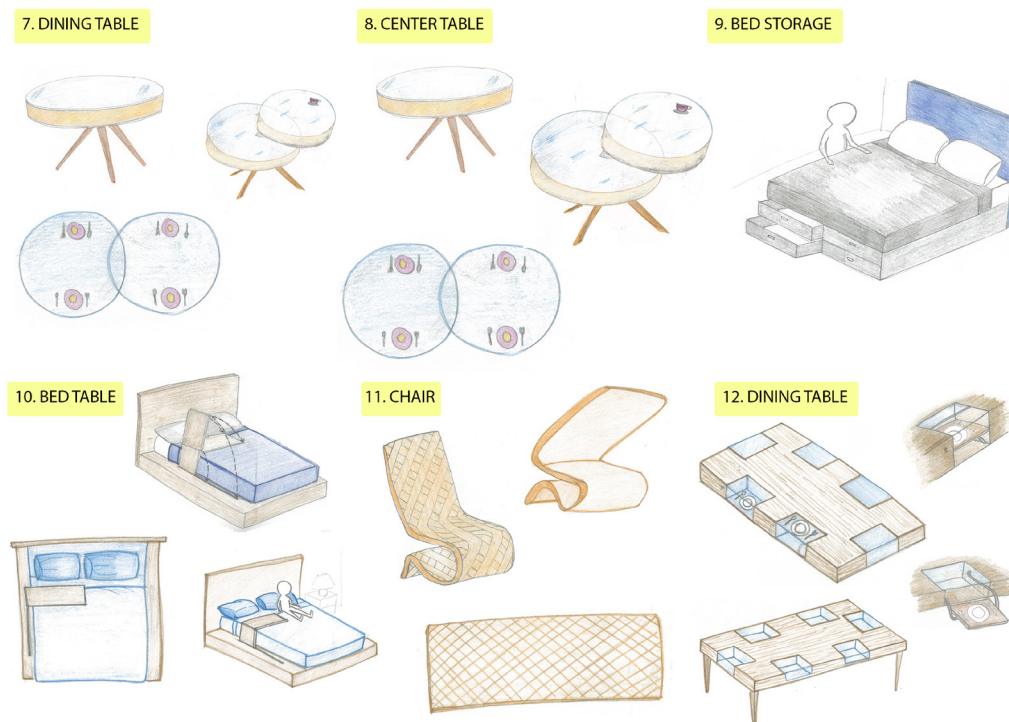
Figure 59. Preliminary sketches | Verma, 2018

1. BED

2. CENTER TABLE

FLOATING CHARACTER.

MAGNETISED
WOODEN CUBES
STEEL CABLES.
EXT. FORCES APPLIED IT DEFORM
& STABALIZES.
RARE EARTH MAGNETS

3. BED

STORAGE

HYDRALIC HINGE.

4. SIDE TABLE WITH BED

5. DINING TABLE

FRONT ELE.

SEC. ELE.
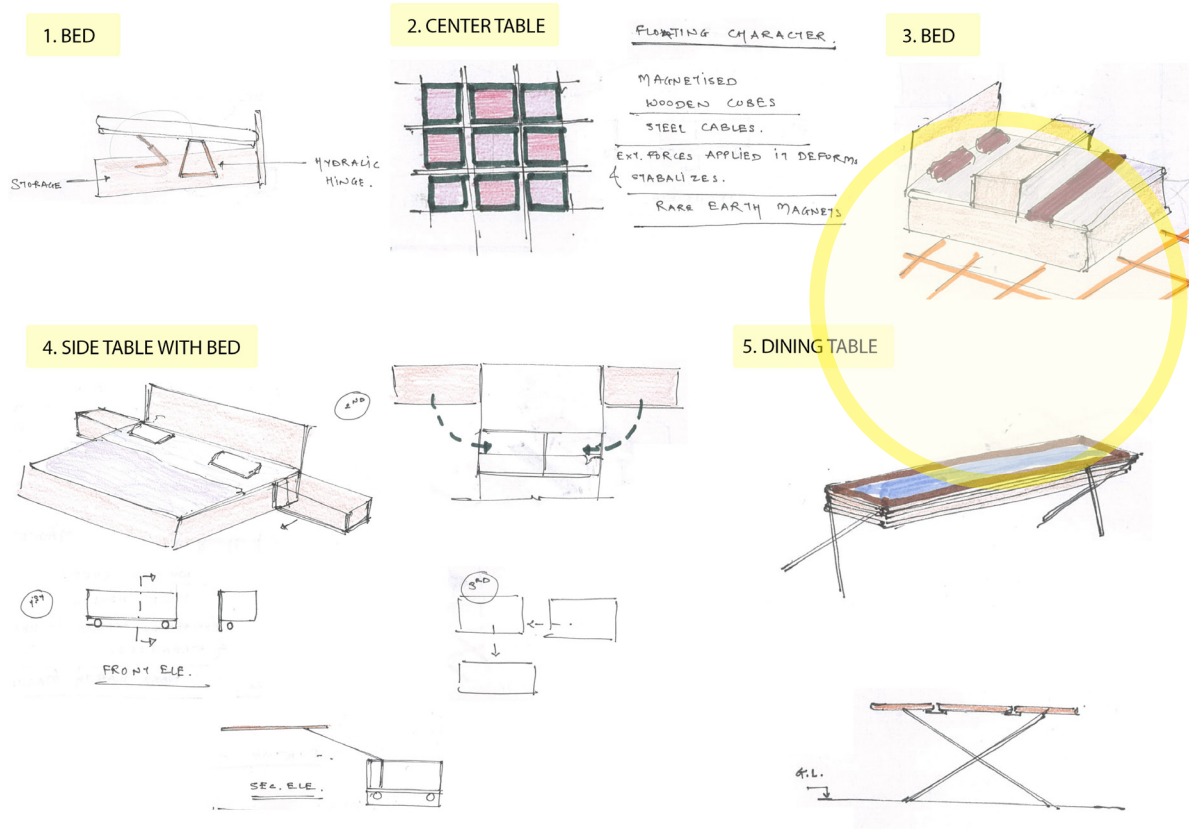
Figure 60. Preliminary sketches | Verma, 2018

6. SOFA

LIGHT.

SPOT LIGHT.

7. DINING TABLE

CLOSED.

OPEN.

PLAN.

TELESCOPIC HINGE.

8. DINING TABLE

11. HEAD BOARD

ELEVATION

SECTION

9. STORAGE TABLE

GLASS.

INBUILT FRIDGE (FOR DRINKS)

FRAME.

G.L.

G.L.

10. CENTER TABLE

SLIDING BOTH SIDES (COVER).

HINGE.

12. FOLDING PANEL FOR DRAWING AND DINING AREA
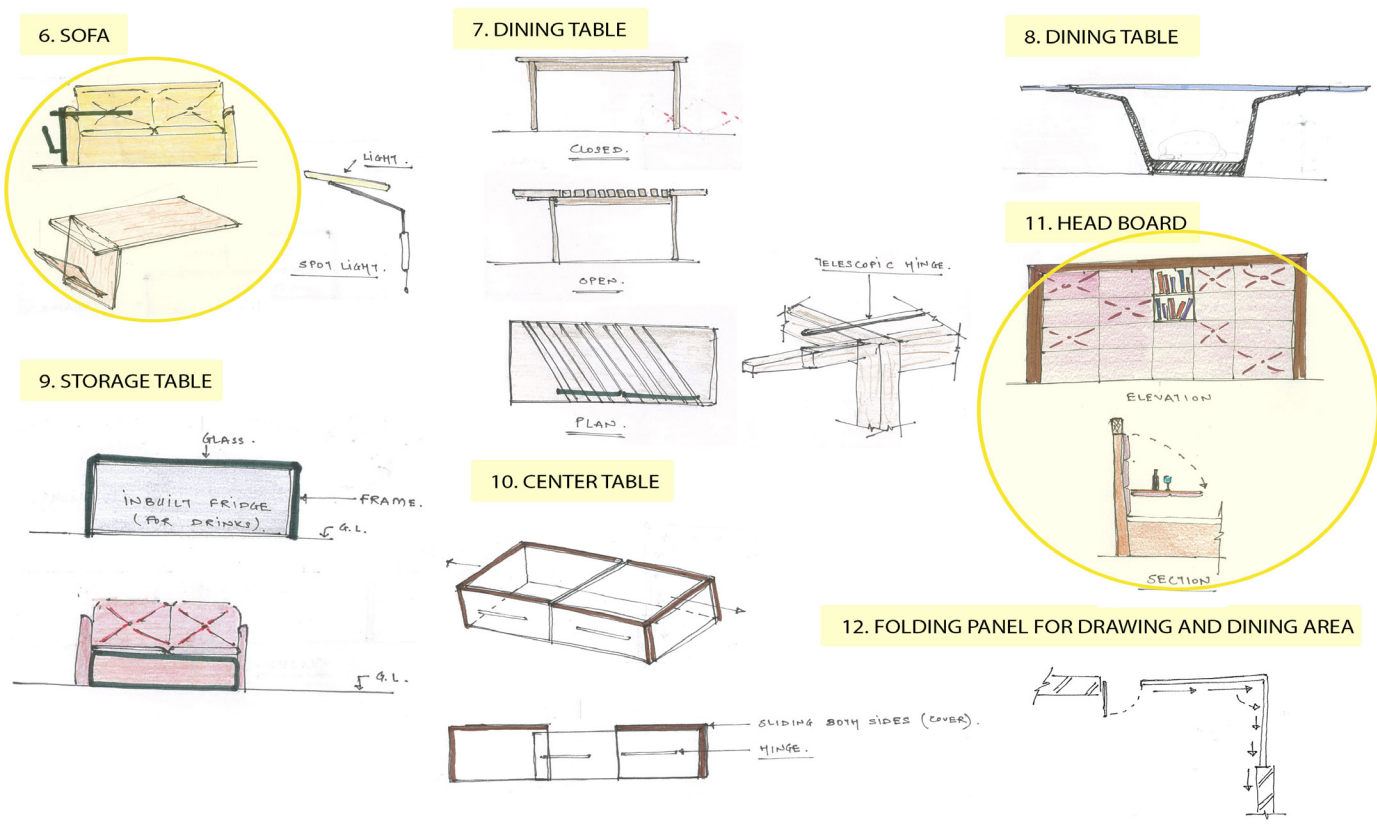
Figure 61. Preliminary sketches | Verma, 2018

SECTION 4

SERVICE DEVELOPMENT

The rough sketches exercise gave me insights on new perspective and freedom to develop multiple innovative active objects in different environment out of the basic shapes, methods and objects.

The concept of an innovative active object follows the stage of development and understanding according to the users needs. I came up with a few innovative active objects to establish a service through my design thinking process and luxurious aspects. The idea behind finding and researching about an existing active object is to treassure the key of users satisfaction towards thier space.

The ideation stems the rough sketches and four main focus from the order of the ideation follows the frequency of activities performed. As identified through the autoethnographic case study, the common spaces are dining area, kitchen and bedroom, introducing the third element as an active object holding a strong bond between the users and their space. Thus, influencing me as a designer to compare the existing active objects with the redefined active objects to know my limitations and streangths for establishing a service.

Figure 62. Existing Dining Table | Verma, 2018   Figure 63. Redefined sketches, Dining table | Verma, 2018
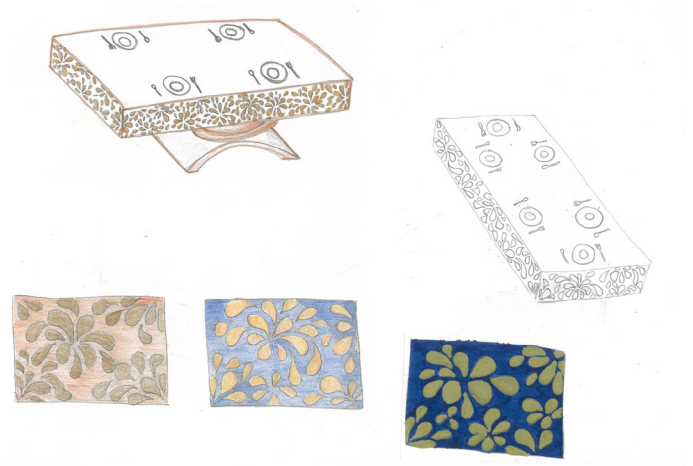
The figure 62, focuses on the interior setting of the house and identifies the dining table to be the active object and focal point of the space. To redefine the active object (Figure 63), I have come up with an ideation to add Mughals aesthetics and the construction principles of minimalism. The dining table is designed with a technology in conjunction with Sombart's concept of luxury (Figure 3)[refer to page 17] in regards to the table's aesthetics and materialistic qualities. Enacting a change in colours of the motif design from brown to royal blue or any other colour from the Mughals strong colour palette. In addition, altering of the tables legs into a semi oval with a supporting frame to create a unique form. Thus, the service innovation of the active object allows the user to exhibit their affection towards design, status and wealth.

The figure 64, focuses on the seating purposes of the bedroom and identifies the sofa to be the existing active object that helps the user to occupy the space with ease and have a direct view of the television from a distance. To redefine the existing active object (Figure 66), the ideation is to add the functional quality of the minimal principles (Figure12) refer to page 27. The sofa is redesigned by adding a table frame with foldable layers which will rest on the armrest of the object when not in use. the user can adjust the size of the table according to the needs. the table has an optional pocket attached on the side frame for storage purposes. Thus, the redefined active object serves the purpose of maximum convenience and accessibility to the user.

Figure 64. Existing sofa in the bedroom | Verma, 2018

PLAN 1   PLAN 2

ELEVATION
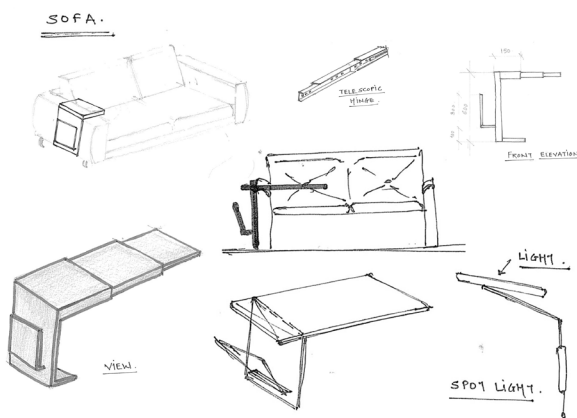
Figure 65. Redefined sketches, Sofa | Verma, 2018
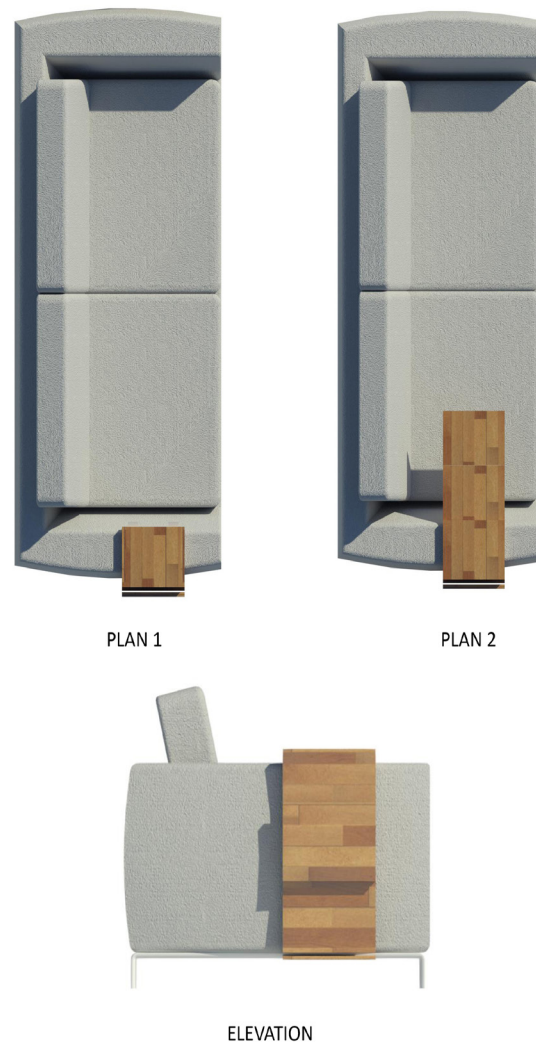
Figure 66. 3-dimensional drawing, Sofa | Verma, 2018

The figure 67, focuses on the rituals performed in the bedroom and identifies the bed to be the existing active object that helps the user to connect with the space. the active object is utilised to perform activities like sleeping, dining, working, and leisure. The need to redefine the existing active object (Figure 69) for a storage and a bed table was analysed. I came up with an idea to add the functional and construction qualities of minimal principles (Figure12) refer to page 27. The bed is redesigned by adding a storage space by creating a niche in the headboard covered with cushioning. The storage can flip down when required to access the storage space or to use the table. The storage for the user was an important aspect to redefine attaining the multi-purpose of the active object which leads to establish a service.
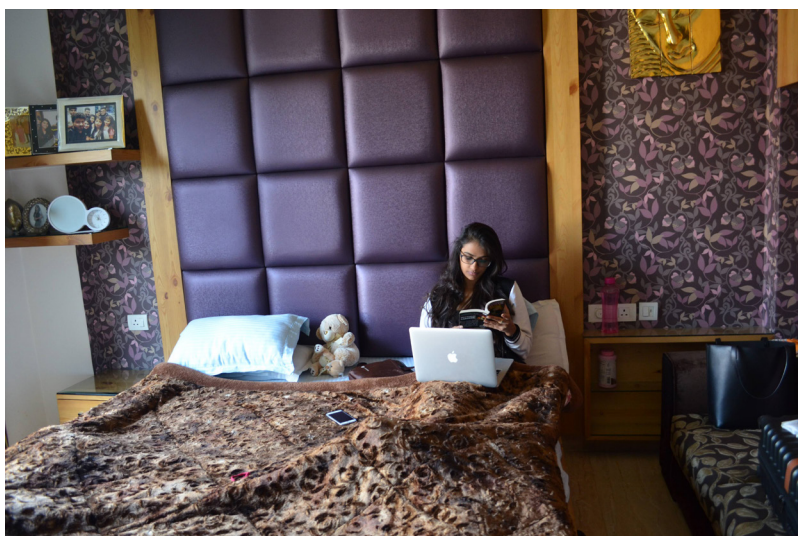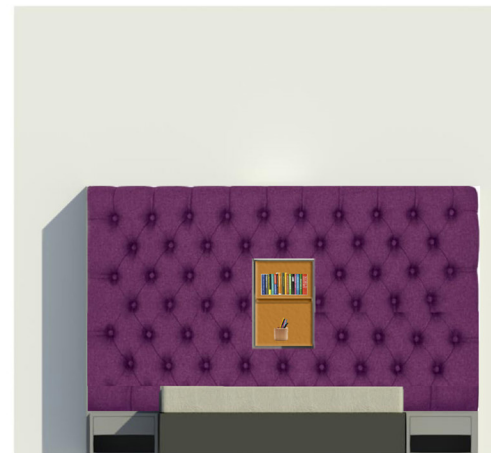
Figure 67. Existing bed | Verma, 2018

ELEVATION
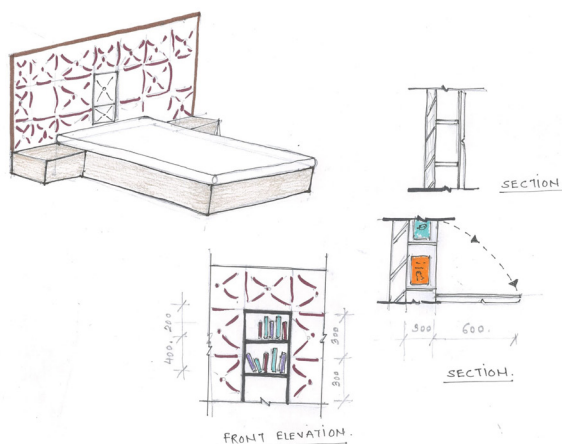
VIEW
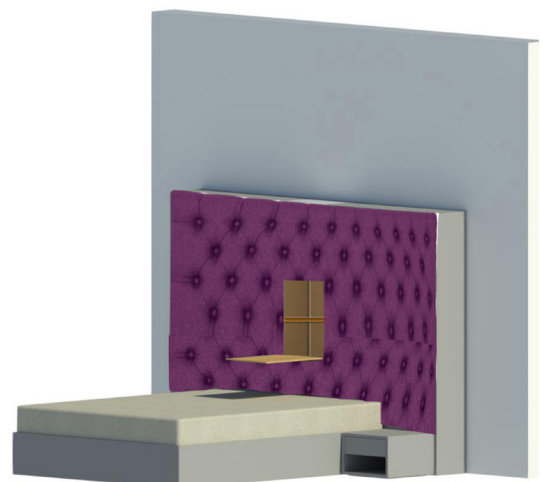
Figure 68. Redefined sketches, Bed | Verma, 2018

Figure 69. 3-dimensional drawing, Bed | Verma, 2018

The figure 70, focuses on identifing the space utilisation for different purposes. The bed is identified as the preferable comfort zone for the user to perform daily rituals. Thus, bed being the existing active object and focal point of the space. To redefine the active object (Figure 72), I have come up with an ideation to add Mughals aesthetics acknowledged from Sombart's concepts of luxury (Figure 3)[refer to page 17] and the construction, and form principles of minimalism (Figure12) [refer to page 27]. According to the preferences and accessibility of the user, an innovation of a bed table allows the user to perform different activities within their space. The bed is designed by adding a sliding table, sliding in forward and backward directions and when required at the corner end of the bad in upwards or downward directions. The redefined bed table helped to determine the purpose of seating which helps the user to operate the wardrobe opposite to the bed wall. A service innovation is developed to achieve a tailor-made site-specific active objects.

Figure 70. Existing bed | Verma, 2018
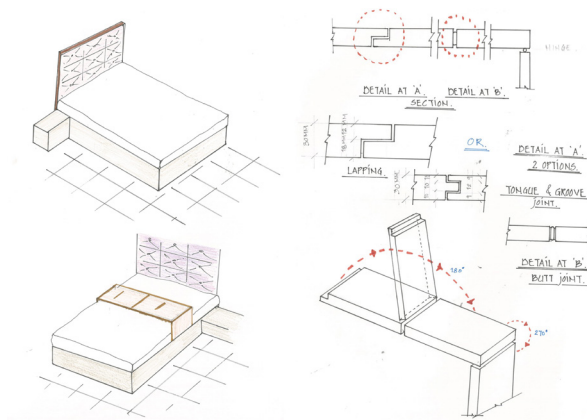
Figure 71. Redefined sketches, Bed | Verma, 2018

Figure 72. 3-dimensional drawing, Bed | Verma, 2018

Service outcome

As a trained designer, I realised there is a need to connect with users for a good design outcome. To work closely with the users to have regular discussions on the alterations and approach to the design process. The end goal is to transform the user ideas into reality that provides satisfaction. Thus, from an investigation on noticeable patterns of the users in their space and my understanding of the autoethnographic case study. I identified three areas of analysis suitable for my service innovation:.

1)The spatial analysis attaining the distance between spaces through users and the user's behaviour with their space.

2)User analysis by mapping the user's movements at different time slots and observing there are some common spaces (Figure 73) frequently visited and utilised to perform activities like the bedroom, dining area and kitchen.

3)Ritual analysis by a visual gallery of activities performed by all family members identifying the common activities performed at different time slots and the user's interaction with an existing active object in their common spaces.

4)Active object analysis by identifying an object and how it affects the user's relationship with their space.

The service allows me to identify the users needs from different perspective and to involve an experience for users to be active at every stage in improving the project.

Kitchen   Dining   Bedroom
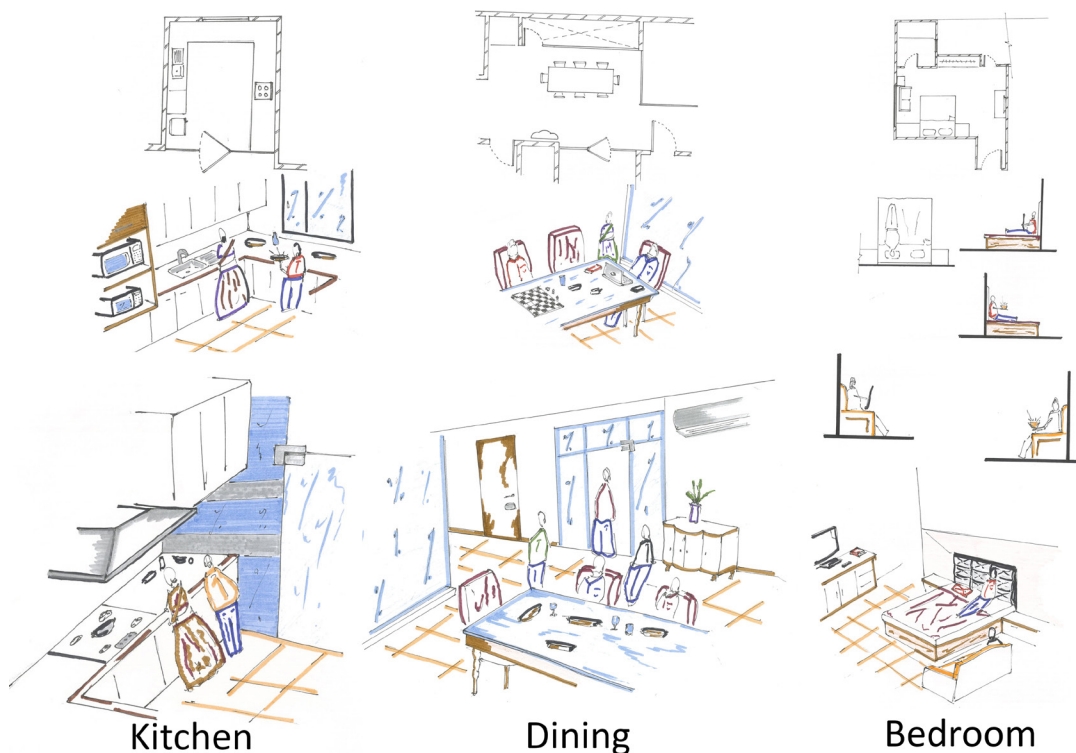
Figure 73. Rough Sketches of Common Areas at Home | Verma, 2018

The platform will provides the following services:

1.   **Concept Design** is establishing the functional performance, opportunities, and constraints of the existing space to kick start the design process. It is an initial design idea, a process in defining the brief programming in advance to create a design process for the space according to the needs and requirements of the users. The evaluation of the space function and constraints with the patterned movements and routines of the users are investigated. The establishment of the project to be featured within the workable parameters that is to make sure that the design is invented according to the users lifestyle. The specification of the concept designs includes:
- Consultation: For design ideas and experimentation
- Planning strategy: To plan the initial stage of the project which includes reviewing the projects layout, furniture layout and conceptual images following minimal luxury (mood boards) for the user to visualize the proposed design
- Drawings: Set of quick sketches and drawings for space construction
- Cost plan: A rough idea of the finances included in the proposed project to receive a bespoke design outcome without any interactions during the project delivered

2.   **Schematic Design** helps to determine the project requirements and goals with the users. It includes the compilation of information gathered by the users and practice them for the progression of the project. It is a detailed design thinking concept incorporating the technical drawings and project management to grant a higher standard of expectation. The specification of the schematic design includes:
- Spatial relationship: The users detailed desires for different elements of design like colour, shape, form, texture
- Drawings and specifications: Site plan, floor plans and elevations, furnishings and finishes, concept images for further specification following minimal luxury
- Rich materials: A selection of rich minimal luxurious materials from the catalogue provided to the users
- Rendering: Importing a 2-dimensional image of the composite of the users space, into to a 3-dimensional walkthrough to specify the placements and orientations.

3.   **Tailor made site-specific design** is a practical solution that is shaped by user's need and desires to enhance their sanctuary. Priority is to satisfy the customers through continuous delivery of valuable objects/design in the given time frame. Prototypes are built and tested in terms of functionality, accessibility and tranquility incorporated with the fusion of mMinimal lLuxury elements on the existing active object. The practical solution is divided into two terms to suit the time frame of the users.
- Short Term: An analysis and a project that involve an autoethnographic study to create a bespoke object. The time frame of the object will be around 1 to 2 months.
- Long Term: A participatory design plan that involves an autoethnographic study and user's feedback to achieve the ideal bespoke object. The time frame of the design process can be varied to the number of times the user will want to recreate the object. An early agreement between the user and designer to create the time frame.

STAGES OF SERVICE

Analysis

Spatial Analysis, User Analysis and Ritual Analysis

Findings

Identify Exiting Active Object

Client's Input

Materials, Colours and Motifs

Fusion

Minimal Luxury Approach

Design Ideations

Design The Redefine

Development

Models, Drawings and Walkthrough

Outcome

Pre-final Following The Client's Response

Making

Manufacturer

Delivery

Final Innovative Active Object

Figure 74. Stages of Service | Verma, 2018

During the process of this case study analysis, I have continually practiced my prior research as an aptitude of my research methodology. In future, this practice will undergo a process of collecting data from my forthcoming clients through preferable means:
1.   Survey or Questionnaire
2.   Time lapse camera
        - Options:
                Turn on and off for private spaces, a green light blinking to indicate the camera is on.
                Turn on and off for public spaces, notice the camera flap

As an outcome of the spatial, user and ritual analysis, identify the user interaction with their space directly and indirectly through an existing active object. I have evaluated an active object analysis by creating a 3-dimensional mock-up of the table, cabinet and chair by obtaining the objects original placement and functionality for various activities.

The client is involved in the process to gain a deep understanding of the client's patterned movements; and routines and rituals. As a designer, I have identified the active object and spaces commonly used. Understanding the multi-purpose and functionality of an existing active objects is vital for the client's tranquility and accessibility. Before beginning to redefine the existing active objects, an optional model is given to the client for their preferences that is to deliver a tailor-made site-specific object.

Chair Aesthetics					
Materials	Oak	Sandalwood	Rosewood	Polypropylene	Steel
Colours	Black	White	Brown	Red	Grey
Motifs	Image 1	Image 2	Image 3	Image 4	Image 5

Table 2. Chair aesthetics | Verma, 2018

Table Aesthetics					
Materials	Oak	Teak	Rosewood	Marble	Gemstone
Colours	Black	White	Brown	Red	Grey
Motifs	Image 1	Image 2	Image 3	Image 4	Image 5

Table 3. Table aesthetics | Verma, 2018

Cabinet Aesthetics					
Materials	Oak	Teak	Rosewood	Marble	Gemstone
Colours	Black	White	Brown	Red	Grey
Motifs	Image 1	Image 2	Image 3	Image 4	Image 5

Table 4. Cabinet aesthetics | Verma, 2018

Through the application of minimal luxury approach in the design thinking process, the refining of an existing active object occurs. Communication with the client about the redefined ideations according to their preferences (Table 2,3 & 4) through models, drawings and rendered walkthrough. A 3-dimensional walkthrough (Figure 75-87) provide an overview of the client's spatial setting.

After discussions and specific changes insisted by the clients, the final innovative active object is processed through and sent to a manufacturer to deliver a customised active object to the client.

Figure 75-87. Walkthrough Renders | Verma, 2018

KITCHEN

BEDROOM

BEDROOM

DRAWING ROOM

DINING AREA
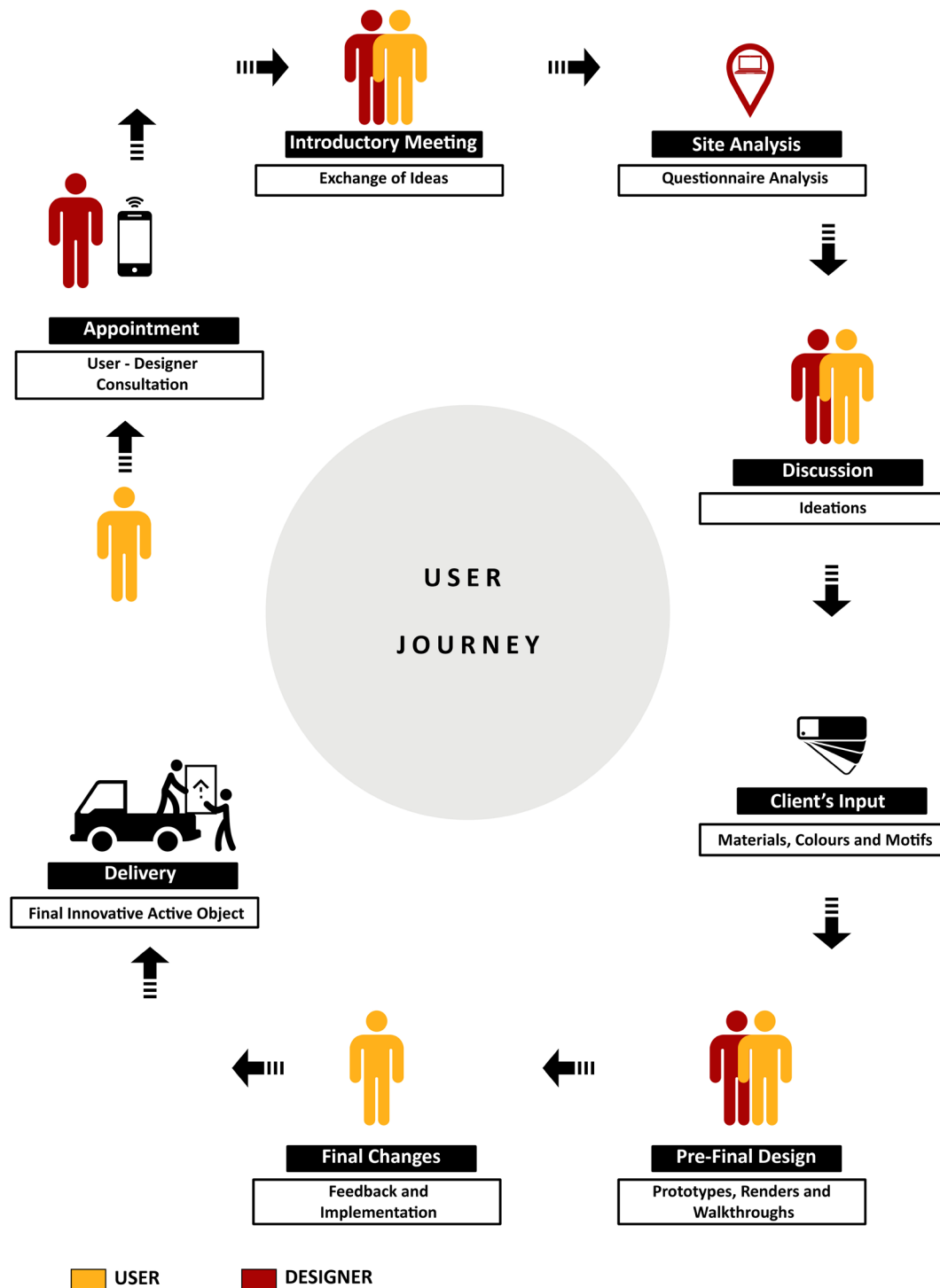
Figure 88. User Journey | Verma, 2018

CONCLUSION

Through my case study, I conclude that the users interact more frequently with some specific active objects within their personal space through their daily rituals. Thus, through this project, I have tried to achieve

1. Making the active object more attractive for the users to provide maximum luxury to them.
2. Making the active object multi-functional and with minimal use of space so that the users can perform various activities conveniently.

I have developed an innovative service design methodology which can be applied to a luxurious preferred environment to create tailor-made site-specific designs. The methodology makes use of the users programming activities to refine the active objects utilised in the common spaces. This project tries to add a new direction to the existing methods of service innovation by amalgamating the principles of minimalism and Mughal's luxurious way of living. This methodology is achieved by embracing prototypes, materials, methods, techniques and design innovation. Through an autoethnographic case study, I have identified the patterned movements of the users and analysed user's behaviour within the space. The case study points out there is an elevated interaction between the users and active user objects.

In the contemporary luxury designs, a single object is constructed for multi-purposes which are convenient and follows the principles of minimalism but lacks the intricateness of design and richness of the Mughal culture. Due to this gap, I have observed that it fails to provide maximum luxury to the Indian customers. From my observation, I have established a direct relationship between the user and the active object. The implementation of the Mughal design in the active object makes it more attractive to the user as Indians are profoundly influenced by the royal touch of the Mughal's designs. This project amalgamates both Mughal culture and a minimalist approach to design luxurious objects with maximum utilisation within minimal space. Through the tailor-made-site-specific-design, I have focused on analysing the needs of the users individually and customising the existing active objects according to the preferences and requirements of the user. Thus, this implementation of the Mughal's design tries to achieve maximum luxury for the users via the active object.

Rich material (Figure 88) application highlights the honesty to the material of the object and adds value to the object design. The Mughals still have the enduring influence on the Indian arts and objects (Michell and Currim, 2007). This influence has been utilised in the project to have the royal designs and artefacts (tables, throne and chair) for achieving maximum luxury and accessibility of the users in their common domestic spaces. The use of traditional patterns in the prototypes highlights the valued craft and technique of the Mughal artisans. The integration of traditional motifs with the experimentation of joinery construction leads to analyse the functionality and aesthetics of an innovation form. This combination of method analysis can be used by the designers while making the minimalist object with the luxurious outlook. Hence, this process can be applied to establish interactive connections between the user, space and existing active objects.

Conclusively, as a designer the knowledge exchange this type of service presents is exciting for the emerging area of service design in a contemporary domestic environments, where capturing information on objective and subjective environments, is critical for the development of design-based interventions to facilitate flow and wellbeing. I have decided to serve my future users through a service approach by using the ideation of a tailor-made-site-specific-design in addition to the concept and schematic design adding it as a new dimension to my work and growth as a designer. I would further like to continue my research in specialising the minimum luxury approach through a methodology to establish a service.

The case study for this project was my own family, I did not get to trial it with another family or have time to create a life size protoype for my family to trial and evaluate its success. This Enriching Spaces project provided a rich opportunity to apply and critique the utility of a design ethnographic methodology for exploring a residents' perceptions of their space. My adaptation of this methodology to a design service, research question revealed that minimal luxury approach is an appropriate and compelling tool for this field, which is traditionally informed by quantitative approaches.

Figure 88. Materials list| Verma, 2018

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