

Kacper Jaroszyński

**Through the lens of lived experience:
How the architecture of mid-century modern homes
pioneered User Experience Design**

Submitted to the Department of Technology and Psychology
in candidacy for the Bachelor of Arts (Hons)
Interaction + User Experience Design
Faculty of Film Art and Creative Technologies

Dún Laoghaire Institute of Art, Design & Technology
2024

Declaration

This dissertation is submitted by the undersigned to the Institute of Art Design and Technology, Dún Laoghaire in partial fulfilment for the BA (Hons) in Interaction + User Experience Design. It is entirely the author's own work, except where noted, and has not been submitted for an award from this or any other educational institution.

Signed: Kacper Jaroszyński

Date: 08 February 2024

Acknowledgments

I would like to express my gratitude to my thesis supervisors Dr. Elaine Sisson and Lara Hanlon for their ongoing guidance, feedback and support. They have encouraged me to find my own voice and helped me navigate through writing a dissertation in my second language. My thesis journey has been made brighter thanks to their enthusiasm and calmness that came uninterrupted throughout the whole process. I wish all such a calm thesis experience!

I would also like to thank Dr. Hilary Kenna, programme chair of the BA (Hons) Interaction + User Experience Design; Dr. Andrew Errity, head of faculty; as well as all lecturing staff and guest industry experts that have taught on the programme between 2020-2024. Their expertise and passion for User Experience Design made the BA degree relevant, inspiring and impactful. Big thank you goes to my peers as we kept each other motivated and provided moral support, especially during self-directed learning periods.

I am grateful for the ongoing support and patience coming from my family and my partner. They believed in me more than I did at times and allowed me to put in the tremendous amount of time necessary to complete this body of work.

I dedicate this dissertation to my little sister Milena
to show her that passion and hard work can take
us to places we never thought we could reach.

Abstract

The architecture of mid-century modern homes was a precursor of User Experience (UX) Design. Modernist architects responded to societal, political and economic contexts and wanted to improve the world by design. It was their core belief that design had a direct impact on public health as well as how people lived their lives – effectively their experience of the world closest to them. This thesis looks at the experience of home, as it is the collection of most intimate experiences. The argument is expanded through discussions on history, philosophy and context of early modernist housing. The main argument of the dissertation states that UX design methodologies, although undefined at the time, can be traced through principles of modernist architecture of the twentieth century (1930-1970). My arguments here are drawn from on the analysis of domestic architectural works by Le Corbusier, Paul Schweiker, Lenore Sater Thye, Peter Whormsley, Charles and Ray Eames. Human-centricity, user goals, user flows, usability testing and prototyping were used to achieve intentional, positive, home experiences that meet the varied needs of people (users) in a given space. Discussing the impact of modernist housing would not be complete without mentioning IKEA and its role in making modernist values accessible to the global population by popularising design and selling of home experiences, rather than just furniture. Lastly, the discursive discussion reflects on what we can learn from the modernist practice of home design and how we can best apply it to the context of the twenty-first century. The dissertation concludes with an argument that transdisciplinary collaborations of urban planners, architects, UX Designers and environmental designers are necessary to create domestic developments that are adapted to current market, lifestyle trends and, crucially the needs of the environment.

Keywords:

Interaction design, home design, mid-century modern, interior design, user experience, UX, precursor of user experience

Abbreviations:

MCM: mid-century modern

UX: User Experience

Definitions for the purpose of this dissertation:

User Experience Design: design practice that is user-centric and considers people's experience of using a product or a service. In this instance a home, room or furniture.

Interaction Design: user-centric design practice that places the main focus on user behaviour when interacting with an object, product, service or space.

User: A person who uses and experiences a product or space, e.g., home occupant.

User goal: What is the objective that the user wants to achieve in a space / home.

Macro-interaction: Small tasks, such as peeling a vegetable or getting dressed.

Micro-interaction: Refers to the bigger flow of interactions, e.g. preparing a full dinner or the flow of getting ready in the morning.

Frictionless Experience: Experience that does not get in the way of achieving a goal.

Persona: fictional character created to represent a specific user type that will interact with the design

Home design: All design considerations that combined create an experience of home. This includes floorplans, functionality of rooms, furniture layout, materiality, accommodation of user goals as well as the situation within context of the plot.

Table of Contents

List of images	8
Introduction	12
Chapter 1	
History, philosophy and context of early modernist housing	15
Chapter 2	
Curated, human-centric, experiences of mid-century modern homes	29
Chapter 3	
The Democratic Design of IKEA. Modernist values made accessible to the global population	59
Conclusion	76
Works consulted	80

List of Images

- Fig. 1** *Villa Savoye*, Le Corbusier. 1930. fot: Paul Kozlowski ©FLC/ADAGP. Photo from online article *Le Corbusier - architect, designer, artist, pioneer and a unique personality*. Les Coleus. Accessed 21 March, 2023. Web. <https://www.lescouleurs.ch/en/the-colours/le-corbusier/#:~:text=The%20design%20principles%20include%20the,a%20radical%20change%20in%20architecture>
- Fig. 2** West façade of *Unité d'Habitation*, Le Corbusier, 1952. Picture from, Sbriglio, Jacques, et al. *Le Corbusier: l'Unité d'habitation de Marseille*. Editions Parenthèses, 1992. Print. ISBN 978-2-86364-277-1
- Fig. 3** Children playing on the rooftop garden. *Unite d'Habitation*, Marsellie. CON_B04326_F001_050. The Courtauld Institute of Art. <https://sites.courtauld.ac.uk/digitalmedia/tag/lunite-dhabitation/>
- Fig. 4** Children playing on the apartment balcony enjoying the air and sun. *Unite d'Habitation*, Marsellie. CON_B04326_F001_026. The Courtauld Institute of Art. <https://sites.courtauld.ac.uk/digitalmedia/tag/lunite-dhabitation/>
- Fig. 5** *Unité d'Habitation*, Le Corbusier, 1952. Section study drawing, 3 levels elevation with arrangement of furniture, silhouettes. Plan FLC 26827. Le Corbusier World Heritage. <https://lecorbusier-worldheritage.org/en/unite-habitation/>
- Fig. 6** Tenement room on Francis Street, Dublin. 1913. Royal Society of Antiques of Ireland. RSAI, DD, No. 56. http://www.census.nationalarchives.ie/exhibition/dublin/poverty_health/Francis_St_7.055_Em2.html
- Fig. 7** *Schweikher's House*. 1938. Master bedroom interior during summer. Photo from online article *Architect at Home: Paul Schweikher's House in Schaumburg, IL*. Trystcraft.com. <https://www.trystcraft.com/single-post/2019/06/06/architect-at-home-paul-schweikers-house-in-schaumburg-il>
- Fig. 8** *Schweikher's House*. 1938. Master bedroom interior during winter. ©Blevins Maureen. 2015. Photo from tripatini blog entry: Blevins, Maureen. *Suburban Chicago's Hidden Historical Gem: the Schweikher-Langsdorf Home & Studio*. Published on 10 Nov 2015. <https://tripatini.com/profiles/blogs/schaumburg-illinois-schweikher-langsdorf-home>
- Fig. 9** Screen capture (3:36) from Public Information and Training Motion Picture and Television Productions, *A Step Saving Kitchen*, 1949. National Archives Catalog. Moving Image. <https://catalog.archives.gov/id/1783>
- Fig. 10** Testing of different working surface heights per task. Visual from National Agricultural Library. U.S. DEPARTMENT OF AGRICULTURE *Step-Saving Kitchens*. Accessed on 04 Oct 2023. Web. <https://www.nal.usda.gov/collections/stories/step-saving-kitchens>
- Fig. 11** Screen capture (2:14) from Public Information and Training Motion Picture and Television Productions, *A Step Saving Kitchen*, 1949. National Archives Catalog. Moving Image. <https://catalog.archives.gov/id/1783>

- Fig. 12** Screen capture (6:11) from Public Information and Training Motion Picture and Television Productions, *A Step Saving Kitchen*, 1949. National Archives Catalog. Moving Image. <https://catalog.archives.gov/id/1783>
- Fig. 13** Screen capture (6:18) from Public Information and Training Motion Picture and Television Productions, *A Step Saving Kitchen*, 1949. National Archives Catalog. Moving Image. <https://catalog.archives.gov/id/1783>
- Fig. 14** Floor plan of High Sunderland, adopted from Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page x. Print.
- Fig. 15** Floor plan of High Sunderland, adopted from Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page x. Print.
- Fig. 16** Hallway, High Sunderland Street. Picture from *High Sunderland, Selkirk*. Historic Environment Scotland. 2017. Accessed on 6 Oct 2023. Web. <https://www.historicenvironment.scot/archives-and-research/online-exhibitions/great-scottish-interiors/high-sunderland-selkirk/>
- Fig. 17** Living Room. View from the study end of the room. The Modern House. *Chronicles of Modernism: the history of Klein House, Peter Womersley and Bernat Klein's paragon of mid-century design*. Accessed on 6 Oct, 2023. Web. <https://www.themodernhouse.com/journal/history-of-klein-house/>
- Fig. 18** Photos from the two-day press event hosted by Bernat Klein in Edinburgh and Galashiels showing his textiles, yarns and garment collections at Waukrugg Mill and High Sunderland house. Photographs by Peter Waugh, April 1963. © Bernat Klein. Accessed via National Museum Scotland. *Bernat Klein at National Museums Scotland*. Web. <https://www.nms.ac.uk/explore-our-collections/stories/global-arts-cultures-and-design/bernat-klein-collection/>
- Fig. 19** Living Room. View from the sunken area looking towards the fireplace. The Modern House. *Chronicles of Modernism: the history of Klein House, Peter Womersley and Bernat Klein's paragon of mid-century design*. Accessed on 6 Oct, 2023. Web. <https://www.themodernhouse.com/journal/history-of-klein-house/>
- Fig. 20** Scan from the book Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page 40. Print.
- Fig. 21** Scan from the book Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page 96. Print.
- Fig. 22** View across living area. Richard Brook. 2012. Bernard Klein Foundation. *High Sunderland*. Accessed on 6 Oct 2023. Web. <https://www.bernatkleinfoundation.org/journal/high-sunderland>
- Fig. 23** Screen capture (0:36) from video. Charles Eames. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>
- Fig. 24** Screen capture (2:02) from video. Charles Eames. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>

- Fig. 25** Screen capture (4:28) from video. Charles Eames. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>
- Fig. 26** Screen capture (4:51) from video. Charles Eames. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>
- Fig. 27** Screen capture (4:58) from video. Charles Eames. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>
- Fig. 28** View from secondary bedroom towards master bedroom. Illustrating the wooden panels. Photo from a web article. Twentieth Century Architecture. *Case Study House #8: The Eames House*. Accessed on 11 Oct 2022. Web. <https://architecture-history.org/architects/architects/EAMES/OBJECTS/194>
- Fig. 29 – 32** Upstairs floorplan drawn by thesis author based on web article Archdaily.com. *AD Classics: Eames House / Charles and Ray Eames*. Photo 19 of 20. https://www.archdaily.com/66302/ad-classics-eames-house-charles-and-ray-eames/5037e3d528ba0d599b00027a-ad-classics-eames-house-charles-and-ray-eames-plans-plus-axon?next_project=no
- Fig. 33** Screen capture (4:48) from video. Charles Eames. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>
- Fig. 34** Charles and Ray Eames in their living Room. Case Study House No. 8. Eames Office Website. Accessed on 17 Jan 2024. <https://www.eamesoffice.com/the-work/case-study-house-8/>
- Fig. 35** Cover of *IKEA Catalogue*. 1952. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1952-ikea-catalogue/>
- Fig. 36** Cover of *IKEA Catalogue*. 1956. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1956-ikea-catalogue/>
- Fig. 37** *IKEA Catalogue*. 1952. Page 29. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1952-ikea-catalogue/>
- Fig. 38** Cover of *IKEA Catalogue*. 1961. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1961-ikea-catalogue/>
- Fig. 39** Curated set of a 2-bed children bedroom. *IKEA Catalogue*. 1962. Page 17. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1962-ikea-catalogue/>
- Fig. 40** Editorial picture showing a lived experience interacting with IKEA furniture. *IKEA Catalogue*. 1963. Page 91. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1963-ikea-catalogue/>

- Fig. 41** Selected IKEA Catalogue Covers showcasing people using the furniture. Years 1973 and 1974. *IKEA Catalogue*. Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/>
- Fig. 42** Set design of a 2-bed children's bedroom with children playing. *IKEA Catalogue*. 1973. Pages 12-13. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1973-ikea-catalogue/>
- Fig. 43** Scan from the book Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page 40. Print.
- Fig. 44** REBUS modular system (left) and individual components (right). *IKEA Catalogue*. 1963. Pages 90-91. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1963-ikea-catalogue/>
- Fig. 45** SYSTEM modular system (left). Individual components (right). *IKEA Catalogue*. 1963. Page. 94. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1963-ikea-catalogue/>
- Fig. 46** SPARTA modular system. *IKEA Catalogue*. 1963. Page 98. (Swedish Issue). Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1963-ikea-catalogue/>
- Fig. 47** Individual modules of SPARTA modular system. Isolated by thesis author based on translation from *IKEA Catalogue* 1963 (Swedish Edition). Page 98. Accessed from IKEA Museum. Accessed: Oct 2023. Web. <https://ikeamuseum.com/en/explore/ikea-catalogue/1963-ikea-catalogue/>
- Fig. 48** LISTERBY table shown in furniture arrangement. *IKEA Website*. 2023. Accessed: Nov 2023. Web. <https://www.ikea.com/ie/en/p/listerby-coffee-table-oak-veneer-50515313/>
- Fig. 49** LISTERBY table shown as an element of a dynamic home scene. Tips and ideas for building a blanket fort. *IKEA Website*. 2023. Accessed: Nov 2023. Web. <https://www.ikea.com/ie/en/rooms/living-room/how-to/tips-and-ideas-for-building-a-blanket-fort-pubc57c6ac0>

Introduction

Take a second to remember what steps you have taken today to get to this moment in time. You very likely got out of bed, carried out your morning routine at home and commuted or walked to a place of work or study to go on with your day. Each step on your journey to this moment was an experience; falling on a spectrum of good to bad and unnoticeable to disturbing. People's lives are a series of visceral (physical), psychological, spiritual, and increasingly digital, experiences. Combined, they create a broader 'living experience'.

The same logic can be applied to homes. They are platforms for experiences throughout our days and lives. Homes are the most intimate spaces that we function in. They are private shelters, intended for rest, regeneration, sustenance, hygiene and family upbringing; having a profound impact on our quality of life. Different parts of a house have different roles; from a secluded bedroom used to rest and hibernate in; to a living room as a place to entertain and socialise in. Kitchens are often viewed as the heart of home – evidencing how closely we are connected to our homes.

This thesis explores how the architecture and design of the mid-century homes (the trend or style known as Mid-Century Modernism or MCM) was informed by human-centric methodologies that we now consider to be UX Design. I am particularly interested in how, modernist architects of the nineteenth century used tools such as user goals, user flows, prototyping and testing to design functionality and aesthetics that worked together to achieve intentional and positive experiences – much like UX designers of the twenty-first century. I am arguing that MCM architecture was a nascent form of UX design, dating back to a pre-digital age. Empathy towards users

and the curation of human-centric experiences were central at the design stages of modernist homes – making them relevant to people at the time as well as eighty years later.

The architects Le Corbusier and Walter Gropius introduced and popularised modernist design practice. Their theories revolved greatly around areas of mass housing and urban planning. It tackled the functional need caused not only by the displacement of people after the war, but also by the wholesale rejection of a pre-war way of thinking about society. Furthermore, poor sanitation and hygiene standards, evidenced by the outbreaks of tuberculosis¹, led to concerns about public health. Modernist architects wanted to be “the doctors of the space”² - working towards a shared vision of healing the world and humankind. Le Corbusier referred to homes as “machines for living”. Machines that are designed, support rest, are flooded with natural light and thrive to improve people’s wellbeing – in its simplicity homes were envisioned to be a “human thing”.³

Early modernists were faced with a unique opportunity brought by the advancements of industrialisation and an eagerness for change found in the society at the

¹ TB affected “between 70 to 90% of the European and North-American population” - making it a critical issue to address. It was believed to be a disease caused by lack of ventilation, sedentary life-style, deficiency of light and depressing conditions. Harvard Library, TUBERCULOSIS IN EUROPE AND NORTH AMERICA, 1800-1922. Historical Views of Disease and Epidemics. Accessed on March 13, 2023. Web.

<https://curiosity.lib.harvard.edu/contagion/feature/tuberculosis-in-europe-and-north-america-1800-1922>. See also, Beatriz Colomina, Mark Wigley. Are we human? Notes on archaeology of design. Chapter 8. Zürich, Lars Müller Publishers, 2016. Print

²Radosław Gajda, Natalia Sześniak. „Architektura Na zdrowie! Czyli skąd wzięły się szpitale i przychodnie?” – “Architecture for health! Origins of hospitals and GP clinics.”. YouTube video from Architecture is a Good Idea channel. 9:52. Published on 19 February, 2023. Translated by the author. Accessed on 22 February, 2023. Web Video. <https://youtu.be/hDbEowczkig>.

³ Le Corbusier, *Towards a New Architecture*. Page 279. Translated by Frederick Etchells, Dover Publications, Inc. New York. 1986. Print

beginning of the nineteenth century. The number of women in domestic service roles in the United States decreased from roughly 50% of the female population in late nineteenth century to 30% in 1900, reaching insignificant levels by 1950s⁴. Such shifts drove further demand for affordable and independent housing of good quality. Consequently, modernist designers and architects were tasked with improving the quality of living experience for the mass populations **by design**.

I have divided my discussion on the link between modernist home design and UX design into three chapters. Chapter one looks at the history, philosophy and context of early modernist housing. It analyses the key principles that influenced modernist architecture as well as showcases the intentionality behind home design. Chapter two explores and analyses three case studies of home design: A Step Saving Kitchen Lenore Sater Thye, 1949, High Sunderland, Peter Womersley, 1956 and Case Study Home No. 8, Charles & Ray Eames, 1949. It outlines UX methodologies used to create curated, human-centric, experiences within homes. Chapter three discusses IKEA and its approach to democratising modernist design and values as well as its transition from selling functional furniture to marketing positive home experiences.

Before carrying out a forensic analysis of the aforementioned case studies, I wanted to understand the larger picture and the impact of the modernist movement on domestic architecture.

⁴ Faye E. Dudden. Experts and Servants: The National Council on Household Employment and the Decline of Domestic Service in the Twentieth Century. *Journal of Social History*, Winter, 1986, Vol. 20, No. 2 (Winter, 1986), pp. 269- 289. Print.

Chapter 1

History, Philosophy and Context of Early Modernist Housing

Le Corbusier's five principles of architecture⁵ were the culmination of his modernist philosophies. They were a practical realisation of those philosophies that influenced generations of architects that followed. Just as Don Norman is credited as a father of UX Design⁶ – Le Corbusier and his principles were the foundations for the development of the modernist movement.

The five principles consisted of: pillars, roof gardens, open floor plans, long windows and open façades. As the main load is borne by rows of pillars, the façades can be lighter and more open allowing for big windows. Open floor plan interiors with big windows felt spacious, were easy to ventilate, evenly lit and extremely configurable as to fulfil and adapt to the goals of its users. It can be argued that the timeless nature of the modernist interiors lies in the successful execution of the designer's intent to create spaces that were a series of positive experiences that promoted a good quality of life. Desire for a great living experience is universal and traverses bound of time and trends. All five principles were applied in Le Corbusier's Villa Savoye (See Figure 1).

⁵ Le Corbusier's 5 points of Modern Architecture, Villa Savoye, Centre Des Monuments Nationaux. Accessed on 15 Nov 2023. Web. <https://www.villa-savoye.fr/en/discover/le-corbusier-s-5-points-of-modern-architecture>

⁶ Don Norman's work on key UX publications: Norman, D. A. (1988). *The psychology of everyday things*. Basic Books; Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things*. Basic Books/Hachette Book Group; co-funding of Nielsen-Norman Group, a UX consulting firm in 1998. Web. <https://www.nngroup.com/>; coined the term "User Experience Design".



Figure 1 Villa Savoye, Le Corbusier. 1930

Le Corbusier's five principles were purely functional. While the modernist buildings were designed in a way that was considerate to proportions, materials, shadow and light – the functionality of the space was the top priority. Modernist architectural principles informed the industrial design movement of the early twentieth century.

The phrase “Form ever follows function” was coined by an architect, Louis Sullivan. It created a common vision shared between architects and industrial designers (furniture, appliances, etc.) around the world. As homes were built to be functional and equipped with modernist furniture and appliances; it led to a creation of a modernist design ecosystem that was based on shared design approaches. Such ecosystems created unified, harmonious experiences in a home. Every touchpoint was envisioned to be functional, effortless and delightful – a direct link to UX Design conventions and best practices found mostly in digital software design.

The desire to improve the general quality of life (living experience), along with Le Corbusier's principles are evident in one of his most important works - Unité d'Habitation in Marseilles, France. The building works as 'a proof of concept'

summarising Le Corbusier's research into mass housing in urban settings. It explored innovative approaches to housing and urban planning that prioritised green spaces, hygiene and mixed-use buildings. The building was supposed to be more than just an apartment block - housing about 1,600 people. It was meant to be established as a 'large standard living unit' that could be replicated around the world.⁷ This was Le Corbusier's attempt to solve the housing crisis in post-war Europe - grasping the opportunity to widely implement the modernist ideas of life. The goal of Unité d'Habitation was to create a living unit that would meet most of inhabitants' everyday needs, in close proximity to their homes.



Figure 2 West façade of Unité d'Habitation, Le Corbusier, 1952.

⁷ Millais, Malcolm. "A critical appraisal of the design, construction and influence of the Unité d'Habitation, Marseilles, France." *Journal of Architecture and Urbanism* 39.2 (2015). Page 106. Print.

Those self-contained 'Living units' would combine private dwelling with functions, such as hotels, shops and shared spaces across floors 6 and 7. A kindergarten and school occupied the top three floors. An indoor and outdoor gym, a running track and a swimming pool were located on the rooftop, providing most of the necessities for Le Corbusier's vision of a 'healthy-modern lifestyle' for the people.



Figure 3 Children playing on the rooftop garden. Unite d'Habitation, Marsellie.

The design of this apartment building followed all five principles outlined by Le Corbusier. There were no load-bearing internal walls. The façade was also not load-bearing meaning that as most apartments stretched across the entire depth of the building; opposite sides of the apartments could be fully glazed.

This approach was unique and revolutionary at the time as it challenged European mass housing norms. European tenements were tightly congested on an urban grid with small windows facing onto a street or into an internal well that was mostly shaded and full of stale air. Unité d'Habitation was not only surrounded by ample green space, but expansive windows meant that each apartment was filled with light, could be easily ventilated and opened every apartment to the beautiful views of Marseille. Le Corbusier reimagined the condensed, dark living experience of urban tenements and proposed a light and air bathed experience of living in cities.



Figure 4 Children playing on the apartment balcony enjoying the air and sun. Unite d'Habitation, Marsellie.

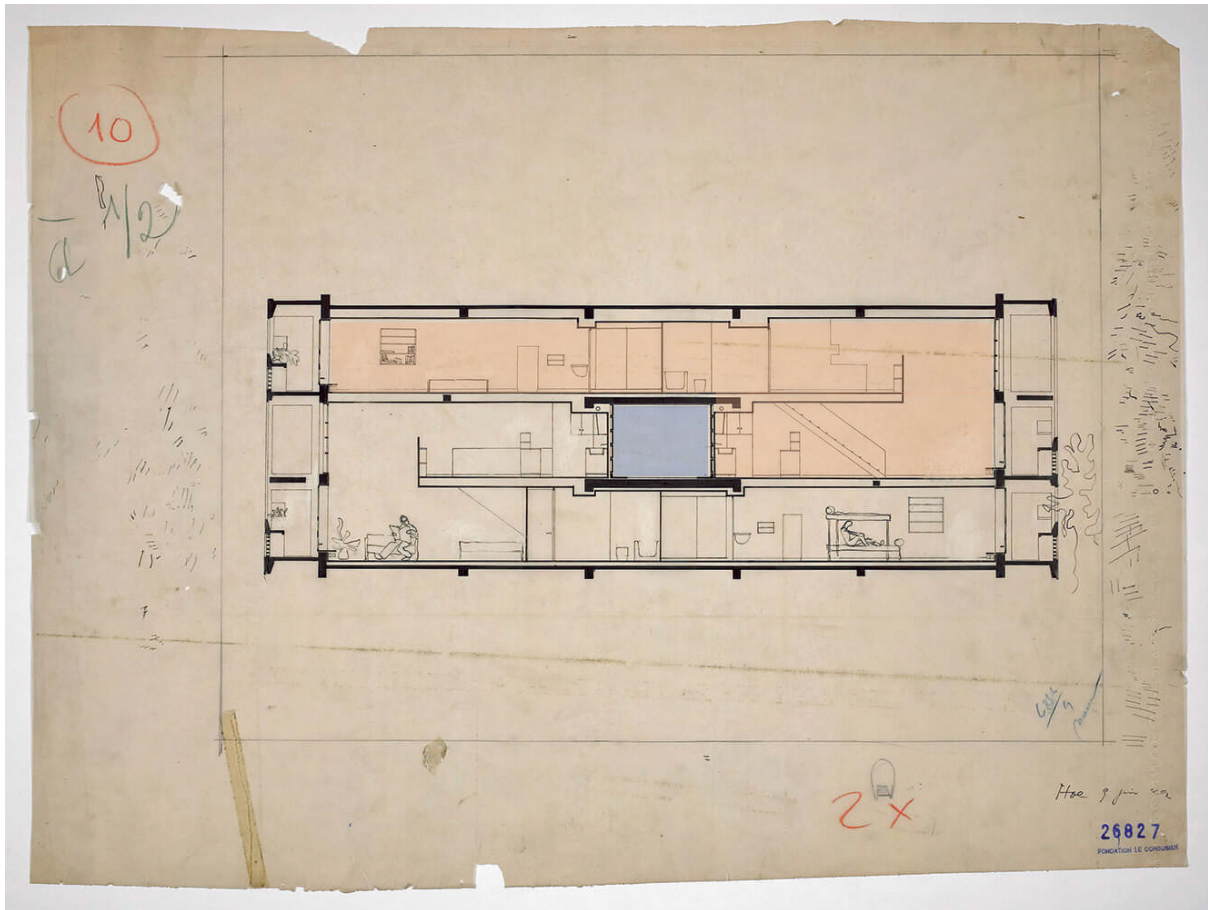


Figure 5 Unité d'habitation. Section study drawing, 3 levels elevation with arrangement of furniture, silhouettes. (Highlights added by thesis author)

The apartments were on two-levels (orange marking). Access corridors (blue marking) were placed on every second floor, providing great spatial variation and double-height spaces in the living spaces. Spatial variation was desirable, as double height ceilings in the living room promoted communal or family daytime activities and created a feeling of openness. Lower rooms were reserved for bathrooms as well as bedrooms to create more intimate spaces that promoted privacy and calm sleep.⁸

⁸ Meyers-Levy, Joan, and Rui Zhu. *The influence of ceiling height: The effect of priming on the type of processing that people use*. 2007. *Journal of consumer research* 34.2. pp 174-186. Print.

To better understand the significance of Unite d'Habitation as LeCorbusier's proposed solution to the problem of mass housing, the realities of early twentieth century Europe must be highlighted. Working-class people often lived in tenements and small dwellings. This was due to the ongoing growth of the population in the cities with the mass rural-urban transition of the industrial revolution. It led to a situation where there was no infrastructure to support good quality of life for the urban population. Tenements often combined functions of a kitchen, bedroom, toilet, living room and a bathroom into one space. Figure 6 shows a tenement room in Dublin at the turn of the century. Unhygienic and poor living conditions and lack of space for a family are apparent. We can see a child pictured on the left, in a space with a bed, a potty, cooking and cleaning utensils. The discolouration on the walls also suggests the presence of mould within the apartment.



Figure 6 Tenement room on Francis Street, Dublin. 1913

Although Unité d’Habitation in Marseille revolutionised architecture, it did not follow public health and fire regulations. This led to situations where “kitchens and dining rooms were nearly eight meters from the window. Kitchen, bathroom, restroom, and children’s bedrooms depended entirely on mechanical ventilation”.⁹ Furthermore, long corridors within the apartments meant fire-escape routes of over 20 meters from children’s bedroom to the only exit of the apartment. This became evident during a fire that spread across multiple apartments in 2012¹⁰ and served as a reminder of Le Corbusier’s oversights. Apartments in Unité d’Habitation had a lot of delightful and show-stopping aspects such as glazed façades, double height living rooms and the beautiful views. However, Le Corbusier did not put the same amount of care and effort into designing every experience in the house – such as children's bedroom and bathroom. The design failed to recognise that ultimately, homes are collections of experiences that all need sufficient consideration.

Lastly, it was never clear who the target audience of Unite d’Habitation was.

This is significant as the lack of a clear target audience (or user persona) meant that Le Corbusier’s design was for people “he thought **should** live in his building”.¹¹

Designing for an imaginary archetype, without any clear user goals in mind, opened grounds for the architect’s subconscious biases, which are outlined further in Chapter 3. The design of Unité d’Habitation was less concerned with the everyday

⁹ Millais, Malcolm. "A critical appraisal of the design, construction and influence of the Unité d’Habitation, Marseilles, France." *Journal of Architecture and Urbanism* 39.2 (2015): 103-115. Print.

¹⁰ Marseille's Cité Radieuse damaged by fire. Angelique Chrisafis. Published: 10 Feb 2012. Accessed on 12 Jul 2023. Web. <https://www.theguardian.com/world/2012/feb/10/marseille-cite-radieuse-fire-damge>

¹¹ Millais, Malcolm. "A critical appraisal of the design, construction and influence of the Unité d’Habitation, Marseilles, France." *Journal of Architecture and Urbanism* 39.2 (2015). Page 114. Print.

person, as “there was no evidence” of interest in “ordinary people”¹². Rather it followed Le Corbusier’s doctrine of a perfect man that focused on “firm control over nature through the standardization of living and the creation of a universalized and normative human being”.¹³ Focusing on an idealistic and imaginary version of a modern man prevented Le Corbusier from empathising with, and truly understanding the real needs of people who **could** live in his apartments.

In UX Design practice, a deep understanding of users is crucial to design products that are desirable, solve real problems and support users in their task. Although Le Corbusier challenged the architectural norms and the systematic design of urban spaces, he failed to recognise the importance of designing individual living experiences for real people that would use his design.

Intentionality in MCM homes: recognising the context in which the building is situated and contrasting it with user needs

In contrast to Le Corbusier’s desire to control the environment and people’s lives through design, post-war (mid-century modern) architects chose to foreground the people and the specific needs that they were designing for. Architects still controlled the living experience of buildings through design; however, their design decisions were grounded in real people’s needs, thus creating intentional experiences. This is apparent in the works of Paul Schweikher as well as that of other architects and designers: Peter Womersley, Charles and Ray Eames, who will be discussed in

¹² Millais, Malcolm. "A critical appraisal of the design, construction and influence of the Unité d'Habitation, Marseilles, France." *Journal of Architecture and Urbanism* 39.2 (2015): 103-115. Print.

¹³ López-Durán F., Moore N. “From France to Brazil and Back: Le Corbusier, Nature and the Ideal Human Type, 1925-1946.” In *Across Time and Space: The Politics of Architecture and Modernity*, edited by Patrick Haughey. New Brunswick/London: Transaction Publishers, 2016, 159-174. Print.

chapter 2. Early on in his career, Paul Schweikher, designed the Schweikher's House for himself and his family. It was completed in 1938 and was the first house of its kind. It utilised sunlight to regulate temperature and help circulate the air. Light and air were still regarded as key factors to the living experience within homes. The master bedroom is the best example of how architecture played a functional role in harvesting the solar energy, all while improving the overall experience of living in the space.

The size of the overhanging ledge above the window was calculated to work with the depth of the room itself. Such levels of intentionality could have been achieved only through Schweikher's observation of the solar patterns throughout the summer and winter months to record the lowest and highest points of the solar path throughout the year – tapping into the ancient human needs for light and connection. Just like UX Designers, Schweiker anticipated the conditions and understood the environment for which he was designing for before planning began. Schweikher's intentional approach to his design decisions can be deconstructed through the use of user goals that follow questions found in contemporary user-experience design practice. That is: **who** is it for?, **what** do they need?, **why** do they need it? The following formula can be derived: **Users**, need to meet their **goal**, so that **their motivation** is fulfilled.¹⁴

¹⁴ "Clarity of Purpose", Redwood Design System, Oracle. Accessed on: 15 Nov 2023. Web. <https://redwood.oracle.com/?pageId=COREE5885CA32C834FBA90227747FDBFCF56&shell=simple-content>



Figure 7 Schweikher's House, 1938. Master bedroom interior during summer.

In the summer months, the high sun is blocked from entering the bedroom, keeping excess heat away. Using the formula outlined above, the goal can be written as follows:

As a person sleeping in my bedroom during summer, I want it to be pleasantly fresh, so that I do not overheat and can fall asleep easily.

The goal leads to a design decision or solution: block the sunlight from directly entering the room in the summer.



Figure 8 Schweikher's House, 1938. Master bedroom interior during winter. ©Blevins Maureen. 2015.

During the winter months, the sunlight is let into the bedroom. Extended ledges over the windows are not blocking the light as the sun passes lower above the horizon. This is an example of a passive solar energy harvesting, where sunlight heats the space up as it enters it throughout the day. Such intervention is very welcomed as the local temperatures outside can drop below 0° at the coldest time of the year.

Applying the same user goal formula to a winter scenario, the following goal can be derived:

As a person sleeping in my bedroom during winter, I want the room to be pleasantly warm and bright, so that I am warm, comfortable and experience as much natural light as possible.

The winter goal is particularly interesting, and it can be broken down further by asking a simple question – why? Winter is the season with the least amount of

sunlight. Sufficient exposure to sunlight may contribute to a decrease in depression risk.¹⁵ A design solution can be derived: maximise the capture of sunlight in the winter.

A consideration of solar paths, combined with a passive ventilation system that allowed hot air to escape and cooler air to be drafted in, ensured optimal temperatures and air quality in the house throughout the year.¹⁶ As winter days are shorter, people might feel down from the lack of sunlight. The residents' experience of the house was further enhanced by welcoming sunlight into the room during winter; an acknowledgement of an increased seasonal need for sunlight resulted in a deliberate solution that had a direct impact on the comfort and wellbeing of the people in the house.

The overarching goal for the Schweikher's House master bedroom can be written as:

As a person sleeping in my bedroom, I want the temperature and the brightness of the space to be optimal throughout the year, so that I can fall asleep easily and wake up in comfort, feeling energised by the sunlight.

The analysis of Schweiker's design decisions allowed me to speculate on the possible goals and design requirements that could have informed Schweikher. His design requirement could be: design a bedroom in a way that keeps the sun out in the summer and lets it in during winter as to provide optimal comfort. It not only reflects the design of the space itself – it is a strong trace of intentionality and empathy towards the users.

¹⁵ Lin, Jing, et al. *Association of time spent in outdoor light and genetic risk with the incidence of depression*. 2023. *Translational Psychiatry* 13.1. Pp. 40. Print.

¹⁶ Hicks Steward, *How This Mid-century Modern House Harnesses the Sun*, Published on: 10 March, 2022. Accessed on: July 2022. Web Video. <https://youtu.be/Qq-3cZ0cbws?si=BaChZ1sskk8o3iBs>

Although we do not have evidence of Schweiker's intentions, the case study of the High Sunderland in chapter 2 foregrounds the architect, Peter Womersley working with the users (clients) from the earliest stages of design. Therefore, it can be argued that goal-oriented design has been a practice used by modernists. Whether empathetic towards the users and their needs - Peter Womersley ; or purely functional - Le Corbusier. Given that Schweiker was designing a house for himself and his family - it is extremely likely that the finer considerations, represented by the user goals above, have been taken into account.

Through a series of considerate design decisions, and working with the user goals, Schweiker was able to deliver a house that, although heavily inspired by Le Corbusier's principles, was incredibly empathetic towards its users. Notable mid-century modern houses were concerned with the understanding of their users and providing functional and considered solutions. Empathy and intentionality transformed the Schweiker's house from a building into a home filled with positive everyday experiences. Based on the above discussion, I argue that MCM architecture was a precursor of UX Design as it came to be known. This argument is even more apparent in the curated, human-centric, experience design of the three case studies discussed in chapter 2.

Chapter 2

Curated, human-centric, experiences of Mid-Century Modern homes

The utopian vision of the perfectly designed cities and homes shared by modernist architects was never achieved. However, highly curated and positive experiences that prioritised human comfort and needs were created as an attempt to get there. This chapter explores and analyses three case studies of home design. First, A Step Saving Kitchen, Lenore Sater Thye, 1949 – for its *prototyping & usability testing* methodologies. Second, High Sunderland, Peter Womersley, 1956 – for *bespoke experience-curation* and responding directly to *users' needs*. Last, Case Study Home No.8, Charles & Ray Eames, 1949 – for a consideration of *user flows*, *user control* over the experience (space) and a *seamless living experience*. All aspects that have been italicised, are methodologies used in UX design.

Increasingly, through twentieth century, middle-class homes were showcased as intimate platforms that responded to individual and family lifestyles and needs. Occasionally, some houses extended into studio or workshop spaces, depending on who they were designed for. The architect, Frank Lloyd Wright, stated that “human use and comfort should have intimate possession of every interior - should be felt in every exterior”,¹⁷ therefore acknowledging that spaces are to be experienced not just built. Houses (buildings) become homes through experience. All case studies discussed in the next sections aimed to achieve harmonious and human-centric experiences.

¹⁷ Wright, Frank Lloyd. "The natural house." (1954). Page 44. ISBN: 0-8180-0007-4. Print.

Case Study 1: A Step Saving Kitchen, Lenore Sater Thye, 1949

The field of home ergonomics grew with the desire to design and optimise every aspect of ‘modern’ life. In the United States, a series of public training videos was directed and distributed to a wider population in order to educate people on best practices and showcase the value of good design in everyday scenarios. The concept of a step-saving kitchen was designed by Lenore Sater Thye, Head of Division of Housing and Household Equipment, U.S. Department of Agriculture in the mid 1940s.

Thye “led the investigation into kitchen design” and through a series *prototyping* and *usability testing*, derived an optimised kitchen design that was meant to “reduce time and effort that must be spent in doing kitchen work”.¹⁸ This is a remarkable example of experience curation from macro-interaction down to micro-interaction level.

Thye’s design was aimed at farmers who could adopt departmental blueprints into their own kitchens and replicate the design of the kitchen within their own means. The kitchen experience was designed for the housewife of the late 1940s and early 1950s, with a goal to “reduce walking, stooping, and stretching to a minimum, in accordance with accepted principles of work simplification”.¹⁹

¹⁸ Public Information and Training Motion Picture and Television Productions, “A Step Saving Kitchen”, 1949. National Archives Catalog. Moving Image. <https://catalog.archives.gov/id/1783>

¹⁹ Stiebeling, Hazel K. “Report of the Chief of the Bureau of Human Nutrition and Home Economics, Agricultural Research Administration”. 1948. U.S. Department of Agriculture, p. 13. Print. As cited in National Agricultural Library. U.S. DEPARTMENT OF AGRICULTURE “Step-Saving Kitchens”. Web. Accessed on 04 Oct 2023. <https://www.nal.usda.gov/collections/stories/step-saving-kitchens>



Figure 9 Screen capture (3:36) from *Public Information and Training Motion Picture and Television Productions*, “A Step Saving Kitchen”, 1949. *National Archives Catalog. Moving Image*

From an Interaction Design standpoint, the process of how the design was derived, is incredibly insightful. Bureau workers conducted a series of experiments and usability tests in laboratories to determine the optimal working surface dimensions and heights depending on the task that had to be carried out. Pull out boards, visible on Figure 10, could be used to achieve a desired counter height for a task; giving the control over the experience to the users in the kitchen.



Figure 10 Testing of different working surface heights per task. Visual from National Agricultural Library. U.S. DEPARTMENT OF AGRICULTURE “Step-Saving Kitchens”. Accessed on 04 Oct 2023. Web.



Figure 11 Testing minimum and optimal counter dimensions for preparing cookies. Screen capture (2:14) from Public Information and Training Motion Picture and Television Productions, “A Step Saving Kitchen”, 1949. National Archives Catalog. Moving Image

Floorplans were reconstructed in the lab, to allow testing in context by bureau workers to inform further iterations. The kitchen consisted of designs for little vignettes (moments) of different stages of the cooking experience. The vignettes ranged from planning shopping lists, through food preparation, mixing, cooking and right to serving food. The process can be summarised as acting out a *user journey*

scenario and interacting with the physical prototype – a practice that is known in the field of Interaction Design to this day.



Figure 12 Demonstration of the mixing station. Screen capture (6:11) from Public Information and Training Motion Picture and Television Productions, “A Step Saving Kitchen”, 1949. National Archives Catalog. Moving Image

Figure 12 shows a mixing station in use, where all equipment needed for dough or batter making was located. Everything the user needed to fulfil a goal of mixing and batter making was within their reach, following the goal of reducing steps and excessive reaching. It also made the task much more efficient as it reduced the time needed to search for relevant ingredients and appliances.



Figure 13 Demonstration of the mixing station. Screen capture (6:18) from Public Information and Training Motion Picture and Television Productions, "A Step Saving Kitchen", 1949. National Archives Catalog. Moving Image

Figure 13 showcases a vegetable preparation area in use. Note how staple root vegetables such as potatoes and onions, had permanent storage containers. Knives were stored to the right and the counter itself was at an optimal height for peeling. The sink was located to the left to allow for easy washing of the peeled produce. The location of the sink promoted the motion of the hand holding the vegetables away from the blade of the knife when putting them to wash. Lastly, the garbage hole was right underneath where the user is peeling to minimize garbage handling. Every single design decision in this space was meant to concentrate everything needed for the tasks at hand into a small area and arranging it in a manner that was ergonomic and supported a given flow. In this instance, vegetable peeling.

It is important to note the biases in the design of the step-saving kitchen. It was designed at a time where cooking and house chores were carried out by women. This was in line with the societal agenda of the re-domestication of women after World War II.²⁰ Hence, counter heights, and order of stations were designed to accommodate women. Fortunately, this is no longer the case in contemporary Europe and America. Lastly, the entire kitchen layout supports right-handed users, which could cause great inconvenience, annoyance and safety hazards for left-handed users, such as myself.

Case Study 2: High Sunderland by Peter Womersley, Scottish Borders, commissioned 1956

High Sunderland was a purpose-built home designed to meet the needs of textile designer, Bernat Klein, his wife and three children. The house was “required to be easily run and to provide maximum comfort for a household of five” with provisions required for “children and weekend guests”.²¹ The architect, Peter Womersley, inspired by Frank Lloyd Wright’s architecture, designed homes to be more than just functionalist buildings: they were considered experiences.

“Before starting work Peter and Beri [Bernat] had several discussions about architecture... approximately how big the plan was going to be and how we lived and worked”.²²

²⁰ Lupton, Ellen. *Mechanical Brides : Women and Machines from Home to Office*. New York, Cooper-Hewitt National Museum Of Design/Smithsonian Institution, 1993. Print.

²¹ *Architecture & Building* 1958. As cited in Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page 1. Print.

²² Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page 23. Print.

It is evident the architect responded directly to how Klein's family **worked and lived** as to design a bespoke series of experiences fit exactly for that family. Meeting *user needs and goals* was a priority from the very start of the process. The house had clear functional zones to support a wide range of needs in the house. A sunken living room, dining room and a study space were in the middle of the house ensuring that shared areas were easily accessible to everyone in the house.

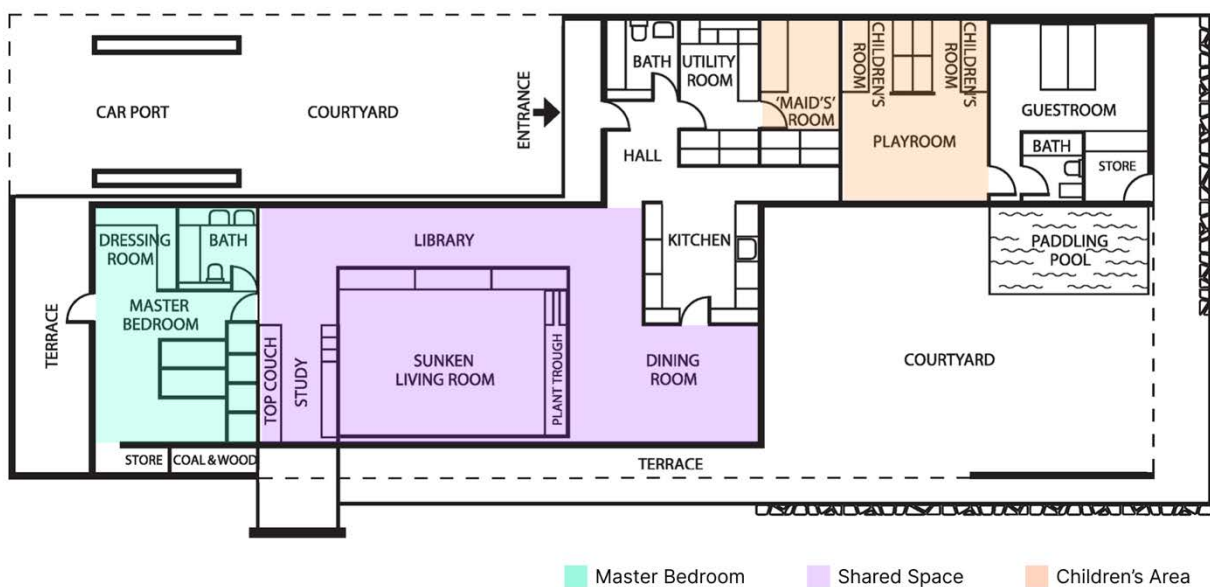


Figure 14 Floor plan of High Sunderland, adopted from Klein, Shelley. "The See-Through House: My Father in Full Colour". 2021. Page. x. Colour markings and legend added by thesis author.

The shared living space acted as a focal point of the house, where family could spend the time together. From the layout perspective, users (habitants and visitors) were naturally guided towards the common area. Bedroom areas were tucked out of sight, providing a sense of comfort, increased privacy, and safety.

According to Matt Gibberd, an “ideal interior should provide spaces for both stimulation and hibernation”.²³ Areas highlighted in red are stimulating with large open spaces and windows and greater ceiling height due to the sunken living room. Blue highlights are spaces designed for hibernation – showing the designer’s intention to design High Sunderland as close to an ideal as possible.

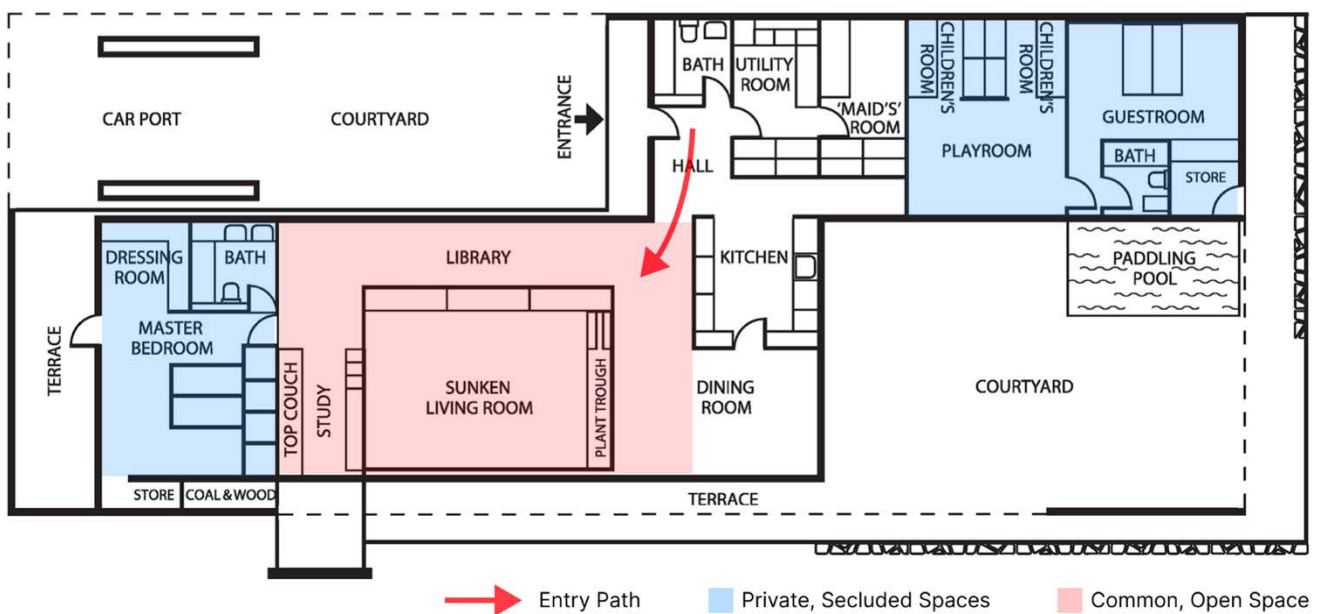


Figure 15 Floor plan of High Sunderland, adopted from Klein, Shelley. "The See-Through House: My Father in Full Colour". 2021. Page. x. Colour markings and legend added by thesis author.

²³ Matt Gibberd, A Modern Way to Live: 5 Design Principles from The Modern House. Penguin Life, 2021. Page 48. Print.

1) Hallway



Figure 16 Hallway. Picture taken in 2017. Historic Environment Scotland. Accessed on 6 Oct 2023. Web. <https://www.historicenvironment.scot/archives-and-research/online-exhibitions/great-scottish-interiors/high-sunderland-selkirk/>

The hallway is the first curated experience that people encounter when entering High Sunderland. Klein describes the hallway as:

“[...] the place that tells the owners, once they have crossed the threshold, they are home. The hallway also welcomes visitors... It is as it were a foreword to the building, the room that announces what else you might expect from the rest of the house”.²⁴

The presence of the PK25 chair by Poul Kjærholm and the vibrant fabric work creates a statement moment (experience) which introduces a house as a space where simple modernist design, love of colour and fabric meet and are true representation

²⁴ Klein, Shelley. *The See-Through House: My Father in Full Colour*. Random House, 2021. Page 19. Print.

of the man and the woman of the house. Inward placement of greenery and a long hallway creates a leading line that promotes movement towards the shared living space, the main focus area of the house, in a natural and inviting way.

2) Living Room



Figure 17 Living Room. View from the study end of the room. *The Modern House, Chronicles of Modernism: the history of Klein House*, Peter Womersley and Bernat Klein's paragon of mid-century design. Accessed on 6 Oct, 2023. Web. <https://www.themodernhouse.com/journal/history-of-klein-house/>

The living room is especially interesting in High Sunderland, as the architect incorporated the needs of Klein and his family into a flexible space to support a wide range of scenarios. As Klein was a renowned textile designer, exhibiting his work was a big part of his practice. High Sunderland was where Klein created textiles, where he got colour inspiration from and where his final work was showcased. The unique, L-shaped corridor, wrapping around the sunken living room area doubled as

a fashion runway. It created an elevated walkway on which models could showcase garments made with Klein's textiles.



Figure 18 Photos from the two-day press event hosted by Bernat Klein in Edinburgh and Galashiels showing his textiles, yarns and garment collections at Waukrugg Mill and High Sunderland house. Photographs by Peter Waugh, April 1963. © Bernat Klein

The elevated L-shaped runway (or just a hallway in everyday scenarios) also served as an enclosure for the sunken living area, fostering relaxation and candid family moments. This was an experience truly opposite to the exclusive, energetic fashion shows and photoshoots that took place in the house. In *The See-Through House* Klein's youngest daughter, Shelley, recalls family activities that took place in the living room. She described evenings when her older brother would screen self-shot movies from family vacation right on the white pillar above the fireplace:



Figure 19 Living Room. View from the sunken area looking towards the fireplace. *The Modern House, Chronicles of Modernism: the history of Klein House*, Peter Womersley and Bernat Klein's paragon of mid-century design. Accessed on 6 Oct 2023. Web. <https://www.themodernhouse.com/journal/history-of-klein-house/>

In the book *The See-Through House: My Father in Full Colour* we can also see photographs of candid family moments in the living room (figure 20).



Figure 20 Klein Shelley, "The See Through House: My Father in Full Colour" 2021. Print. Scan from page 40.

Even more intimate moment captured as Klein's wife, Peggy, is knitting while young Shelley watches her mom carefully (figure. 21).



Figure 21 Klein Shelley, "The See Through House: My Father in Full Colour" 2021. Print. Scan from page 96.

Shelley Klein also described the living room to be “warm”. Not in a visual or thermal sense - rather it was in how the space made her feel, such as feelings of cosiness, ease and comfort. That abstract sense of warmth is a testament to how homes are not just functional volumes of space. They are visceral, human, experiences that people feel.

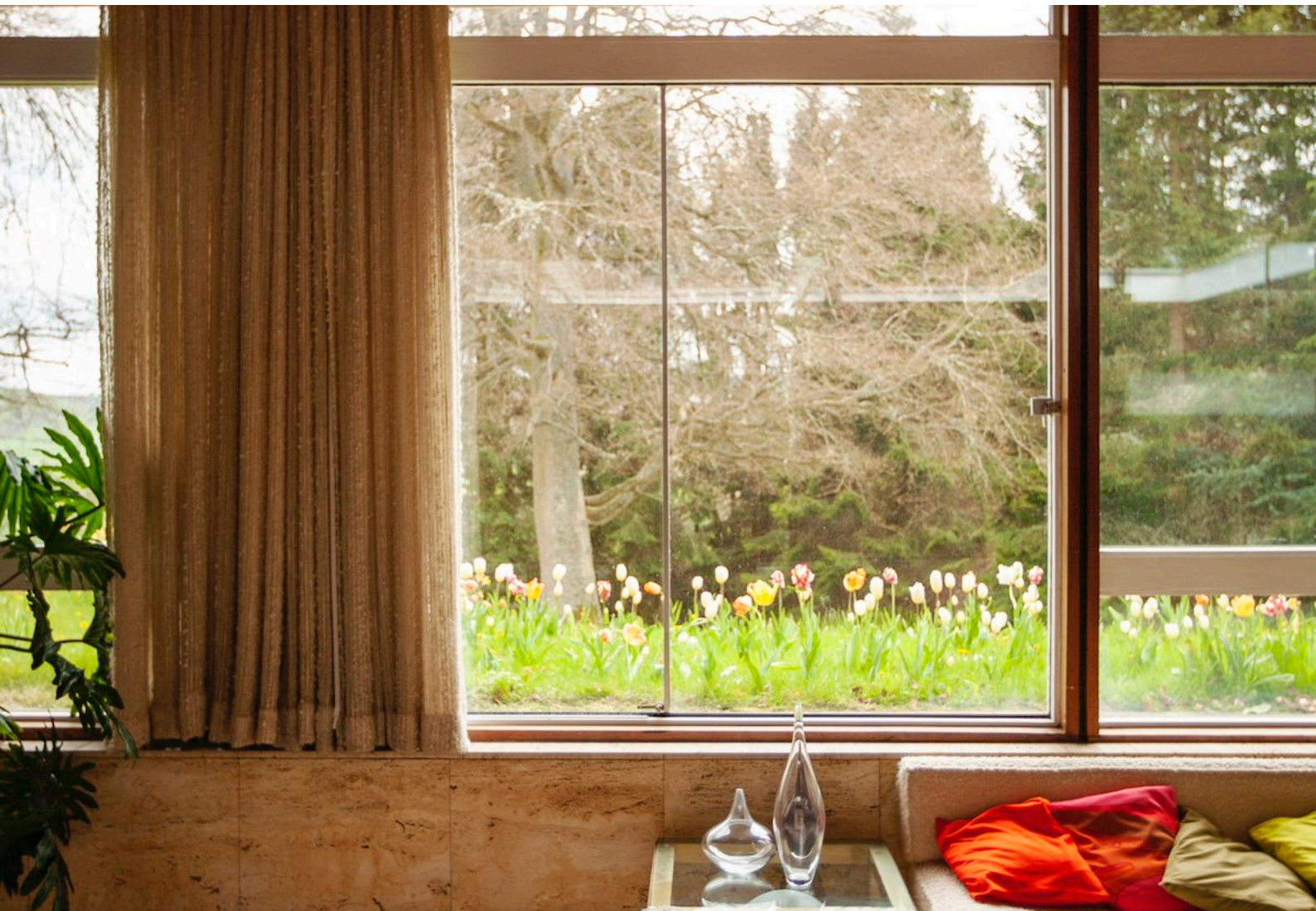


Figure 22 View across living area, Richard Brook, 2012. High Sunderland, Bernard Klein Foundation Accessed on 6 Oct 2023. Web. . <https://www.bernatkleinfoundation.org/journal/high-sunderland>

Extensive glass windows created a feeling of openness throughout the house. One of the principles of modern architecture was to bridge the gap between outdoors and indoors – bringing the nature into the interior.

Shelley Klein recalled her experiences of gazing outside the windows shown in figure 22. Referring to the living room as an “inside-outside room”. Her words showcase a true blur of the in-out boundary of the see-through house:

“Over the years I have sat here and watched deer wander through this inside-out room ... I have spied red squirrels climbing the curtains ... In summer, when the glass walls were slid back, birds and butterflies flew in to the living room only to become trapped. I found a pheasant in the hallway once, contentedly pecking the marble floor, and one night three toads flopped into my bedroom”²⁵

Such openness of the space could make the users feel exposed. Hence the nickname of the house: the see-through house. Although every space and experience were heavily thought through, the architect and the owner were so focused on pushing the boundaries of modern architecture, that they forgot to consider the feeling of exposure that glass walls bring. This was especially intense in spaces where users could see through the entire house as opposite walls were fully glazed.

Lastly, it is important to highlight how particular Bernat Klein was about the space and objects within the house. The insights come from anecdotes recalled by Shelly Klein as she experienced the house throughout her childhood, adolescence and adulthood. The couches were not comfortable, however they were custom designed to fit the space harmoniously. The hallway chair was not meant for sitting or putting things on it. It was a focal point of the entry experience. This shows how every detail in the house was carefully considered and how every space was curated by Bernat Klein and Peter Womersley, sometimes at the expense of usability. Not all people would be as involved curators as Klein.

²⁵ Klein, Shelley. “The See-Through House: My Father in Full Colour”. 2021. Random House. Page 59. Print.

After Bernat's death, Shelley – who lived in the house throughout her grieving period, remarked that the house was filled with Bernat's presence – “it was built entirely out of who my father was”.²⁶ The books in the library, the choice and positioning of the furniture, the feel of the house, reflected Bernat. Homes are not only intimate experiences that affect our everyday life, they are connected to us so closely that they reflect who we are. Ultimately, it is the users who affect the experience as much as the experience affects them. The next section looks at Case Study House No.8, Charles & Ray Eames and is an excellent example of user control over an experience.

²⁶ Klein, Shelley. “The See-Through House: My Father in Full Colour”. 2021. Page 113. Vintage. Print.

Case Study 3: Case Study Home No.8 by Charles & Ray Eames, Los Angeles, 1949

The Case Study Home programme aimed at reimagining the way to house people in post-war America. In anticipating the coming building boom and trying to solve the problem of housing shortages. The programme “embraced a belief that the modernist ideals could be part of the post-war home”.²⁷ Even though the homes were designed as forward-thinking prototypes, the aim was for the proposed designs to be widely replicated.²⁸ Such practices can be compared to modern-day design systems where user experience (UX) and user interface (UI) patterns and components can be reused to create a harmonious user experience.

Charles and Ray Eames designed the Case Study Home No. 8 with flexibility as the main aspect of the experience. The goal for the house was to not obstruct daily life and to be adaptable throughout the years as to fulfil the changing needs of a family. Eames’ vision can be translated to UX Design terms as a *frictionless* and *user-customizable* experience. The use of double height ceilings and full-height windows placed strategically throughout the house aimed at blurring the boundary between the interior and the exterior of the house, similarly to High Sunderland. However, the windows were placed in moderation as to provide a comforting shelter – a major advantage over High Sunderland’s feeling of being overly exposed to the outdoors.

²⁷ Demetrios, Eames. "An Eames Primer." (2001). Page 134. Universe Publishing. New York. Print.

²⁸ The Case Study Houses Forever Changed American Architecture”, Michelle Hofmann. Forbes. Feb 1, 2021. Accessed on 11 October 2023. Web Article. <https://www.forbes.com/sites/michellehofmann/2021/02/05/the-case-study-house-program/>

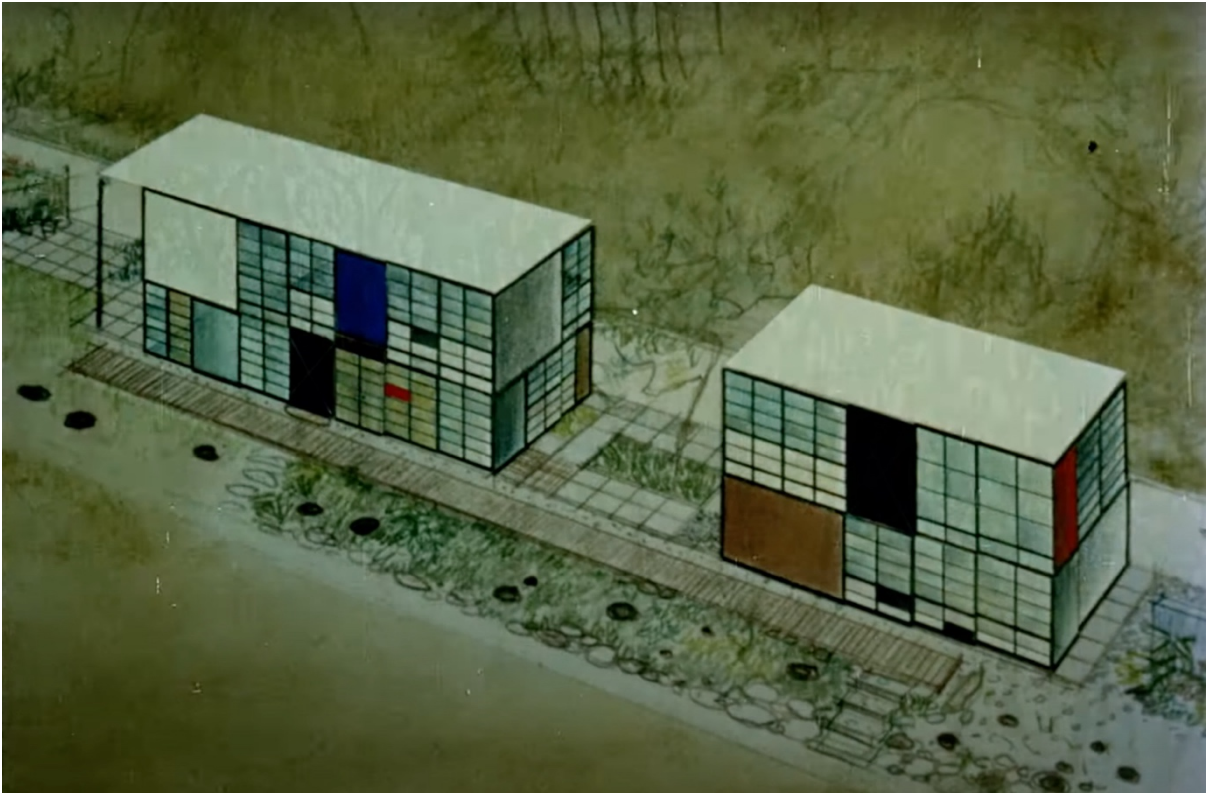


Figure 23 Screen capture (0:36) from “House: After Five Years of Living”, Charles Eames, 1949-1955. 35mm film stills as transparencies. Moving Image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>

The two buildings: house (left) and creative studio (right) were two-storey high with a patio separating them. A separate creative studio meant a clear division of professional life (work) from personal life (resting) – a functional division that can be often observed in MCM homes.

The Eames house was designed to blend into the landscape, blurring the boundary between the inside and the outside. The trees cast a shadow onto the façade and created patterns on the living room walls in the interior spaces.



Figure 24 Screen capture (2:02) from “House: After Five Years of Living”, Charles Eames, 1949-1955. 35mm film stills as transparencies. Moving Image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>



Figure 25 Screen capture (4:28) from “House: After Five Years of Living”, Charles Eames, 1949-1955. 35mm film stills as transparencies. Moving Image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>

The distinction between the inside and the outside can be seen in two stills from the Eames' film "House: After Five Years of Living". The Eames house has "the spectacularly unspectacular blend of indoor and outdoor, a kind of way-it-should-be-ness, an almost soap-bubblelike quality".²⁹ The space does not feel purely indoors, nor does it feel exposed to the outside elements. It is as if the house was half-outdoors.



Figure 26 Screen capture (4:51) from "House: After Five Years of Living", Charles Eames, 1949-1955. 35mm film stills as transparencies. Moving Image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>



Figure 27 Screen capture (4:58) from "House: After Five Years of Living", Charles Eames, 1949-1955. 35mm film stills as transparencies. Moving Image. Accessed on 10 Oct 2023. <https://www.youtube.com/watch?v=CUC3kBpFUF0>

²⁹ Demetrios, Eames. "An Eames Primer." (2001). Page 139. Universe Publishing. New York. Print.

This curated ambience fosters users' connection to nature and the environment around. The Case Study Homes programme advocated for the construction of designs, stating that to fully understand the impact of the design, it must be experienced. Demetrios Eames proposes that "without being built, a house's meaning is hard to place".³⁰

The Case Study Home No.8 was constructed for Charles and Ray Eames as prospective clients themselves. The target audience for the house was a working couple living without children. Eames' daughter, Lucia, was moving out to college and would use the second bedroom during visits.³¹ – the imagined scenario reflected the life-circumstance of the architects perfectly, meaning that they could fully empathise with the scenario and continuously adapt the home's experience to their changing needs. The Eames' family needed a flexible space to support their everyday life. This was achieved through a series of customizable experiences that could be adapted to various scenarios and contexts. Ford Peatross, as quoted by Demetrios Eames, described the Eames House as "a vessel for the objects within".³² The term "a vessel for within" suggests that the Eames house was not an imposing shape, rather it was a platform for its users to fill the inside of its frictionless, formless, walls. The concept of a frictionless vessel is best illustrated through floorplan analysis of the upper floor of the house.

³⁰ Demetrios, Eames. "An Eames Primer." (2001). Pg. 134. Universe Publishing. New York. Print.

³¹ Demetrios, Eames. "An Eames Primer." (2001). Pg. 134. Universe Publishing. New York. Print.

³² Demetrios, Eames. "An Eames Primer." (2001). Page 139. Universe Publishing. New York. Print.

Upstairs was reserved for two bedrooms, two bathrooms and a dressing area. Half of the space was taken up by the double ceiling atrium of the living room located beneath. The bedrooms featured unique walls made of sliding wooden panels.



Figure 28 View from secondary bedroom towards master bedroom. Illustrating the wooden panels. “Case Study House #8: The Eames House”. twentieth Century Architecture. Accessed on 11 Oct 2022. Web. <https://architecture-history.org/architects/architects/EAMES/OBJECTS/194>

The sliding panels (highlighted blue, figure 29) allowed the occupants of the house to modify their hibernation space (bedrooms) to a variety of configurations.

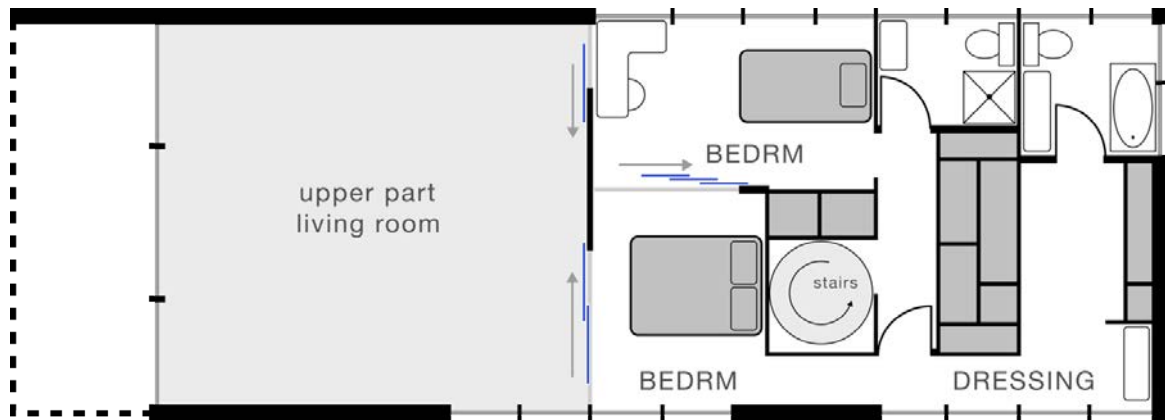


Figure 29 Upstairs floorplan Case Study House No.8. Drawn by thesis author based on Archdaily.com

The bedrooms could be opened to the living room's atrium for spectacular views, or close off for privacy (see figure 30).

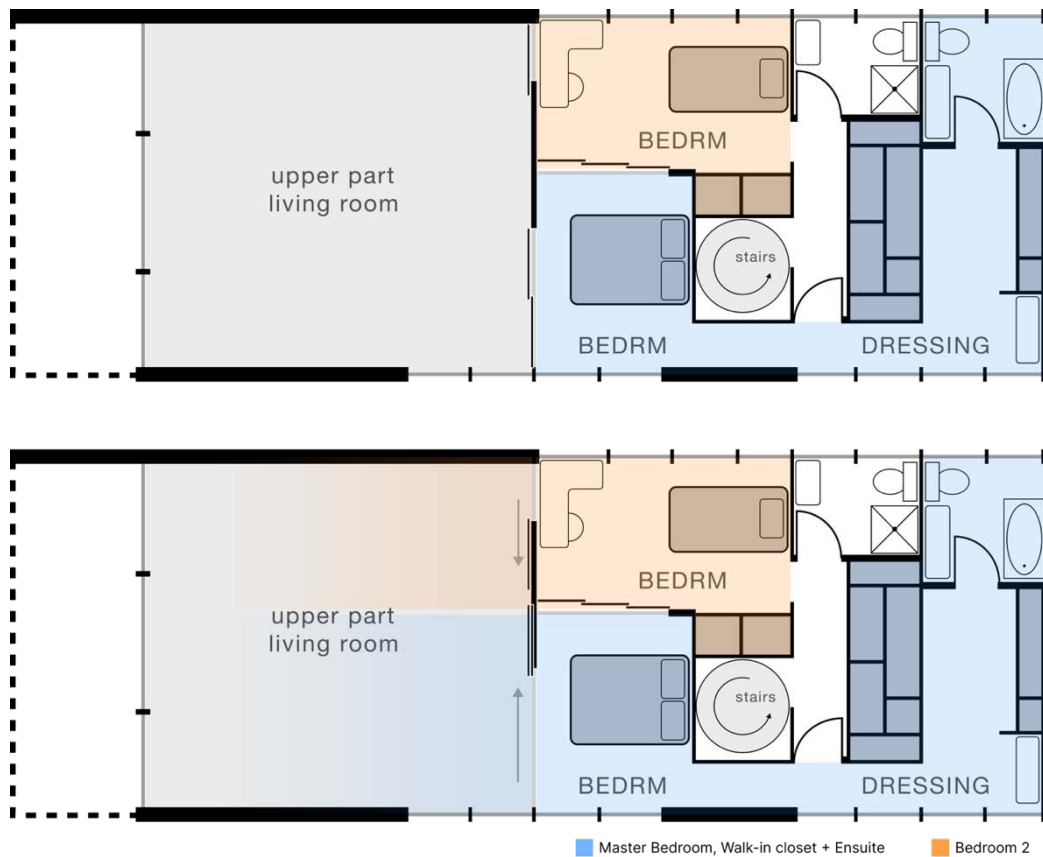


Figure 30 Upstairs room configuration. Case Study House No.8. Drawn by thesis author based on Archdaily.com. Marks added by thesis author.

When the second bedroom was not occupied, the partition between the rooms could be opened, increasing the overall area (see figure 31). Even when the two bedrooms are joined, the utilities remain out of the way, showing how all configurations were considered. Flexibility by design allows people to create their own experiences, depending on their needs at a particular time.

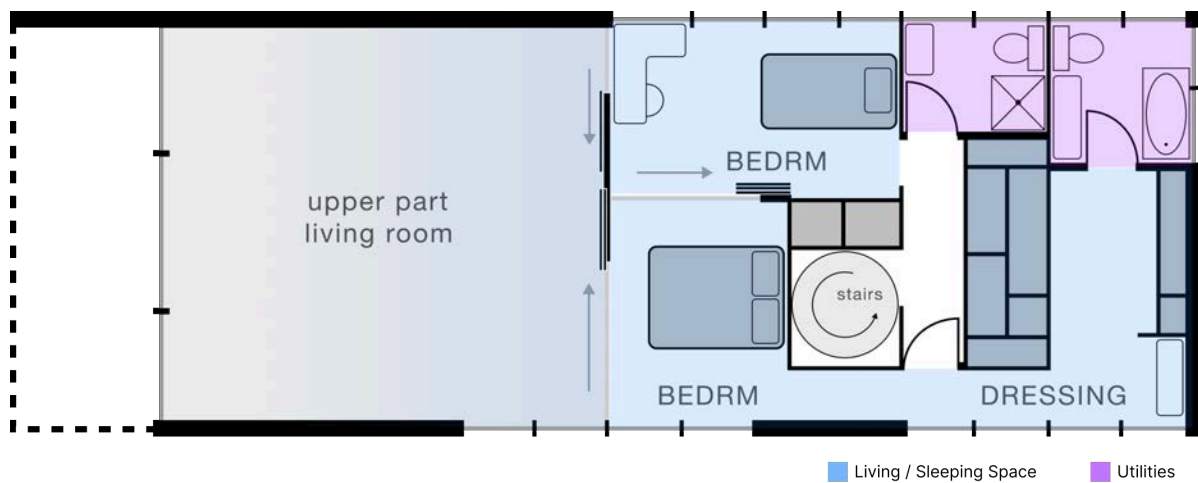


Figure 31 Upstairs room configuration. Case Study House No.8. Drawn by thesis author based on Archdaily.com. Marks added by thesis author.

It is evident that *user flows* were considered in the design of the bedrooms. This can be seen in a map of morning routine steps plotted onto the floorplan. Even if people from both bedrooms had to get ready at the same time, the friction was eliminated by keeping the two bedroom flows completely separate from each other (see figure 32).

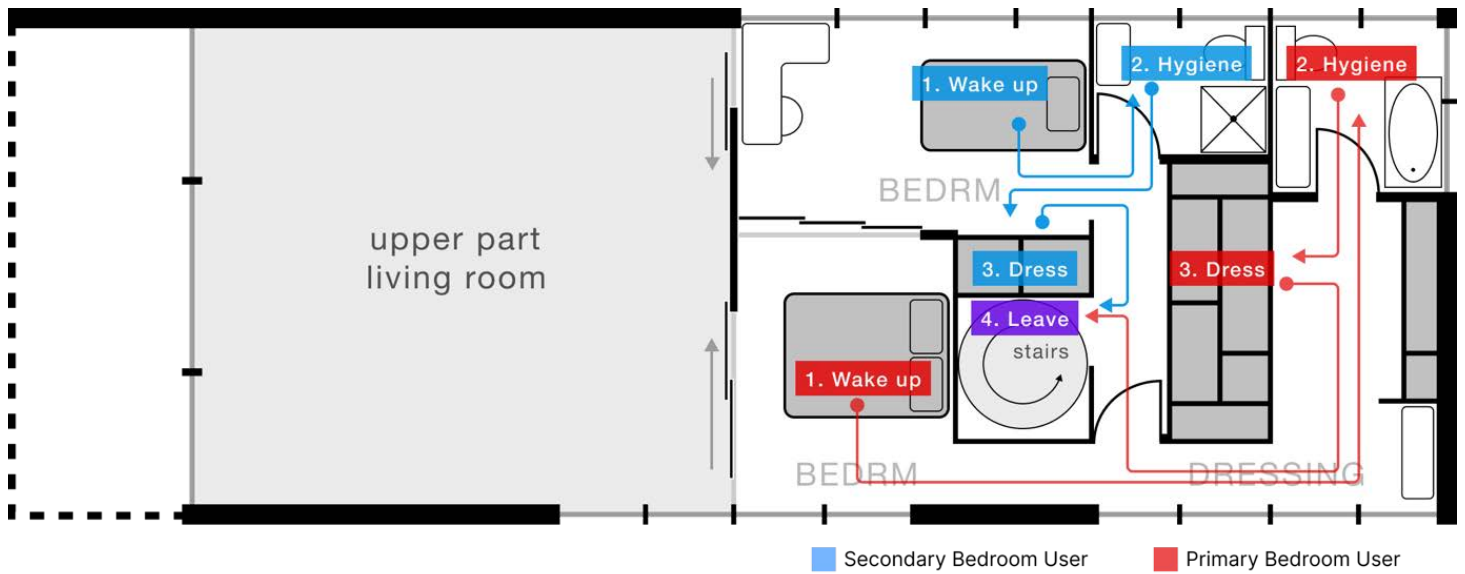


Figure 32 Possible user flows in the morning. Case Study House No.8. Plan drawn by thesis author based on Archdaily.com. Paths added by thesis author.

The living room had a unique experience curated by Ray Eames. Two paintings were hung parallel to the ceiling (see figure 33). The reason behind this unusual choice was Eames' simple motivation – watch paintings while lying down on the sofa.



Figure 33 Unconventionally hung painting. Screen capture (4:48) from “House: After Five Years of Living”, Charles Eames, 1949-1955. 35mm film stills as transparencies. Moving Image. Accessed on 10 Oct 2023.

<https://www.youtube.com/watch?v=CUC3kBpFUF0>

I see such intervention as the perfect example of how people use the platform of their home to create experiences that delight and are uniquely theirs. The house itself could be adapted and curated, without getting in the way of its users. As Ray Eames remarked herself: “After 13 years of living in it, the building for me ceased to exist a long time ago”.³³ The symbiotic relationship of Charles and Ray Eames with the house can be observed in figure 34.

³³Case Study Houses 1945-1962 2 by McCoy, Esther. ISBN: 9780912158716. Print. As cited in Demetrios, Eames. *An Eames Primer*. (2001). Pg. 139. Universe Publishing. New York. Print.



Figure 34 Charles and Ray Eames in their living Room. Case Study House No. 8.

This leads to a greater question – what if we all lived in spaces that provided a flexible platform, that we could all customize? What if we lived in spaces that meet our needs and allowed for experiences specific to us? What if our homes were designed with the same approach as the case studies: from optimising our workload (step saving kitchen), through understanding of our unique goals (Schweiker’s house and High Sunderland) to blending so well that they ‘disappear’ into the background (Eames Case Study Home No.8). Seamlessly supporting our goals - the ultimate form of our home user experience.

In contrast to the bespoke and premium design of the case studies discussed in this chapter. Chapter 3 explores how IKEA empowered the public to create individual experiences and environments through affordable, flexible and modular systems placed within the platform of home.

Chapter 3

The Democratic Design of IKEA. Modernist values made accessible to the global population.

IKEA took from the principles and ideology of Bauhaus, including mass production, industrial design and modular furniture systems. However, in contrast to Bauhaus and modernism, IKEA had a truly customer driven outlook³⁴. IKEA's founding vision by Ingvar Kamprad was to provide "Low prices and good quality"³⁵ to its customers. Kamprad gave IKEA's customers access to good design and the freedom to customise their purchases to best fit their homes. Practices formed by Kamprad in the 1950s and 1960s, were described as "democratic design" by IKEA in 1995. For the purposes of this discussion, democratic design refers to the definition by Marcus Engman, former Head of Design at IKEA Sweden: democratic design is "the will to reach the majority of people with great ideas"³⁶

IKEA's democratic design was founded on five pillars: Form, Function, Sustainability, Quality and Accessibility (through low price-points).³⁷ This chapter discusses IKEA's advertisement and selling of experiences as well as the impact on societies through the promotion of modularity and personalisation.

³⁴ Poon, S. *From Tubular Steel to Flat Pack: A Case Study Comparison Between Bauhaus and IKEA Innovation Leadership in Contemporary Design*. 2019. Human Factors and Ergonomics Journal 4.1 pp. 25-31. Print.

³⁵ IKEA, "From humble origins to global brand – a brief history of IKEA". Accessed on: 23 Oct 2023. Web. <https://www.ikea.com/ie/en/this-is-ikea/about-us/our-heritage-pubad29a981#:~:text=Low%20prices%20and%20good%20quality,was%20not%20prepared%20to%20do>

³⁶ IKEA Museum, "Democratic Design". Moving Image (0:26). Accessed on 22 Oct 2023. <https://ikeamuseum.com/en/explore/the-story-of-ikea/democratic-design/>

³⁷ Ibid. Moving Image (0:48)

The Journey Towards the Selling of Experiences: IKEA Catalogue Analysis

IKEA catalogues were published in print form from 1950 to 2021 annually. They were important devices that showcased the product offerings of IKEA and allowed for the selling of experiences and “lifestyle design”.³⁸ In the 1950s and early 1960s, the catalogues were focused purely on the wide range of IKEA’s product offering and competitive prices. Early IKEA catalogues had graphic covers, showcasing the logo and oftentimes a piece of furniture in isolation (figures 35-36).



Figure 35 Cover of IKEA Catalogue, 1952.

³⁸ Trendafilov, Dimitar. "Design incorporated: IKEA as personal experience." (2018). *Punctum. International Journal of Semiotics* 4.1. Page 165. Print.

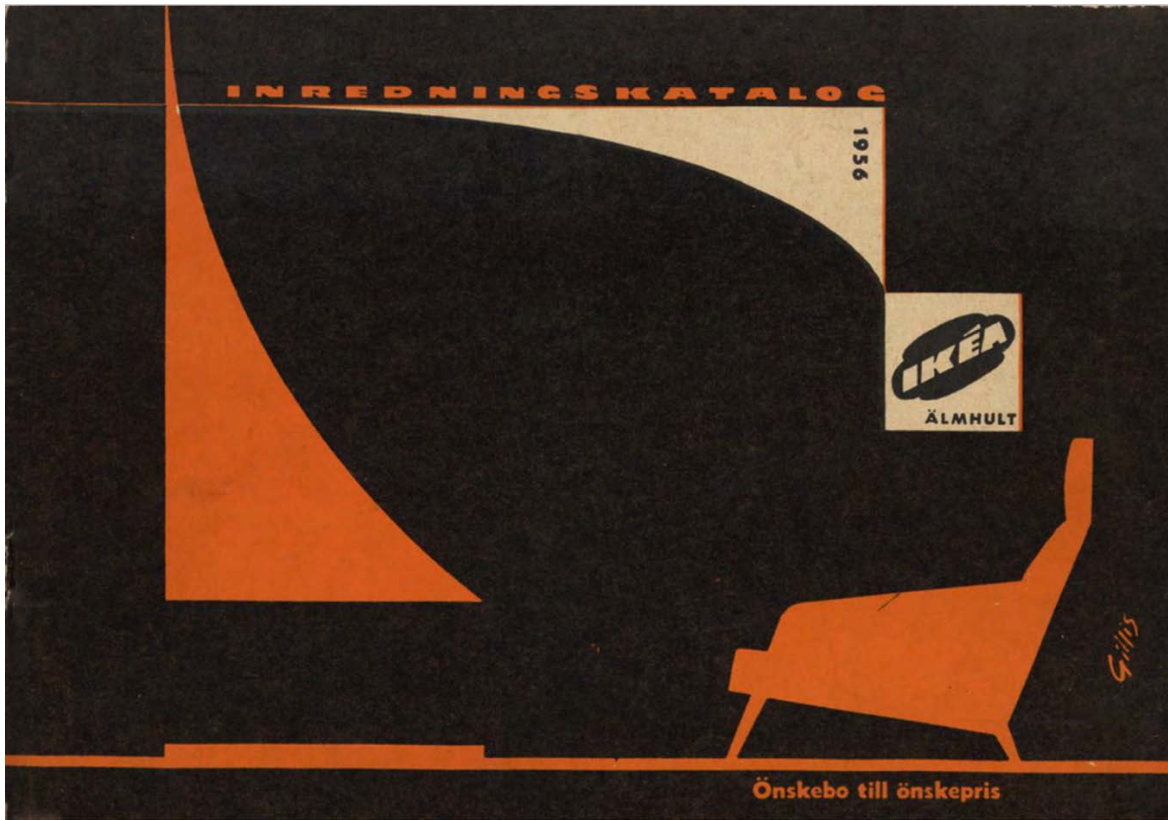


Figure 36 Cover of IKEA Catalogue, 1956.

Kombinera själv

Om det är någon fåtölj Ni tycker särskilt mycket om och vill ha en annan soffa till den, om Ni önskar en bäddsoffa till någon av fåtöljerna i sittsoffgrupperna går detta mycket väl för sig. Angiv då bara att de olika artiklarna skall användas i grupp, så skall vi klä dem med samma tyg.

Just nu är det mycket populärt med olika fåtöljer i samma grupp. Kombinera själv ur vår kollektion och vi skall göra allt för att Ni skall få det just så som Ni vill ha det.

Våra tyger är av mycket god kvalitet. Om man undantar de enklare reklam- och standardgrupperna är samtliga stoppmöbler klädda med tyger i 20-kronorsklassen.

— En bra fåtölj

ERIK

Nr 18 Fåtölj "Erik" är försedd med 12 resärer i sitsen, avsydda kanter bandresärer i ryggen, som är indelad i tre fält. Kan också erhållas med rygg inhäftad med knappar. Stomme av prima björk med synliga delar bonade i alm-, valnöts- eller mahognyfärg. Stoppade med prima vadd och krollsplint. Höjd 90, sitsdjup 58 och sitsbredd 57 cm. Tygätgång 2 m. Tyg i röd, rost, grön, blå eller beige grundton med trevligt blom-, rand- eller andra mönster i kundens val.

Pris komplett med tyg endast 109.50
Pris med kundens tyg endast 85.50

HÖG I KVALITET — LÅG I PRIS!

POPULÄR

Nr 26 Bäddsoffa "Populär" är tillverkad av prima björk med synliga delar bonade i alm-, valnöts- eller mahognyfärg. höjd 80, djup 75 och längd 195 cm. Klädd med prima möbiltyg i rost, röd, grön, blå eller beige grundton med trevliga blom-, rand- eller andra mönster i kundens val. Sitsen är försedd med 32 förstklassiga resärer och har avsydda (mjuka) kanter med inbyggd stälten. Sitsens undersida som bildar den ena bädden är klädd med prima bolsterver. Den andra bädden har kraftig kedjebotten och i lädan finns rymlig plats för sängkläder. Bäddarna kan skiljas åt. Tygätgång 4 meter.

Pris komplett med tyg endast 268.50
Pris med kundens tyg endast 220.50





IKÉA VISAR VÄGEN TILL FÖRMANLIGA INKÖP.
DIREKT LEVERANS — LÄGSTA PRISER.

28 Ikéa — Agunnaryd

Figure 37 Sterile and functional editorial tone of IKEA. IKEA Catalogue, 1952. Page 29.

Figure 37 showcases the editorial style of the 1952 catalogue. Furniture objects were presented as cut out photographs. Form was shown in isolation. Functionality took precedence with illustrative diagrams, (see bottom left corner of figure 37), that often accompanied a picture of the product. The 'form and function' editorial style lacked the human presence that would make the products more relatable to customers. Isolated images also made it harder to estimate the scale of the object.



Figure 38 Cover of IKEA Catalogue, 1961.

In 1961, the catalogue cover illustration depicted a vignette of a living room in a highly directed view of the space. It showcased the furniture in an advantageous way. With the introduction of set curation, customers could understand the scale of individual pieces of furniture as well as how different products interacted with each other. Thus, the famous interior curation of IKEA began to shape.

Societal shifts of the 1960s saw more women entering the workforce, all while still taking care of the household responsibilities. Lena Larsson, a Swedish interior designer, aimed at creating family-friendly furniture lines in the early 1940s. The furniture was meant to allow for “child-friendly family rooms, rather than reception

rooms where expensive furniture is shown off but never used” all while making housekeeping duties and keeping the house clean and easier to organise.³⁹

By 1960s, Larsson’s work and concepts gained national recognition in Sweden and were followed globally. “IKEA gave her credit for their design ethos”⁴⁰ which can be seen in IKEA’s own range of furniture and children rooms sets from the catalogue.



Figure 39 Curated interior set of a 2-bed children bedroom. IKEA Catalogue 1962. Page 17.

In the example from 1962, the space has been organised for study, play and rest. The materials used for children's furniture feel natural, warm and as if they were ready to receive years of bumps scratches and crayon drawings. Something that high-end MCM furniture made with hardwood, chrome and leather could not support.

³⁹ IKEA Museum, “Life at home 1960s”. Accessed on 1 Nov 2023. Web. <https://ikeamuseum.com/en/explore/life-at-home/life-at-home-1960s/>.

⁴⁰ M. Thorell, “IKEA and its Muses”, Schuylkill Valley Journal Online. Accessed on 1 Nov 2023. Web. <https://www.svjlit.com/features/ikea-and-its-muses-by-magaret-thorell>



Figure 40 Editorial picture showing a lived experience interacting with IKEA furniture. IKEA Catalogue, 1963. Page 91.

The 1963 catalogue saw the first depiction of a full ‘IKEA experience’. A woman enjoying a collection of records in her living room, using REBUS modular system. The fact that the model is seated on the floor (a soft, fuzzy carpet) with records around her, made the experience more authentic and accessible; and all while subtly showcasing the functionality of the REBUS module that holds the record player in the left of the frame. People were able to picture themselves in the situation from the

photograph more easily as compared to the cold and purely functional narrative. Suddenly an experience made possible by REBUS furniture was the desirable element sold by IKEA – not the furniture item itself. I consider this image (figure 40) to be the beginning of selling the IKEA experience and lifestyle rather than just furniture.

Another major editorial shift of the 1970s saw people becoming an integral part of the photography and showcase of products. Imagery communicated “what the product is” **and** “how exactly it will become part of the everyday life for the customer”.⁴¹ The covers from 1970, 1971, 1973-1976 featured people interacting with furniture. Covers from 1973 and 1974 had a particular emphasis on everyday life and experience.

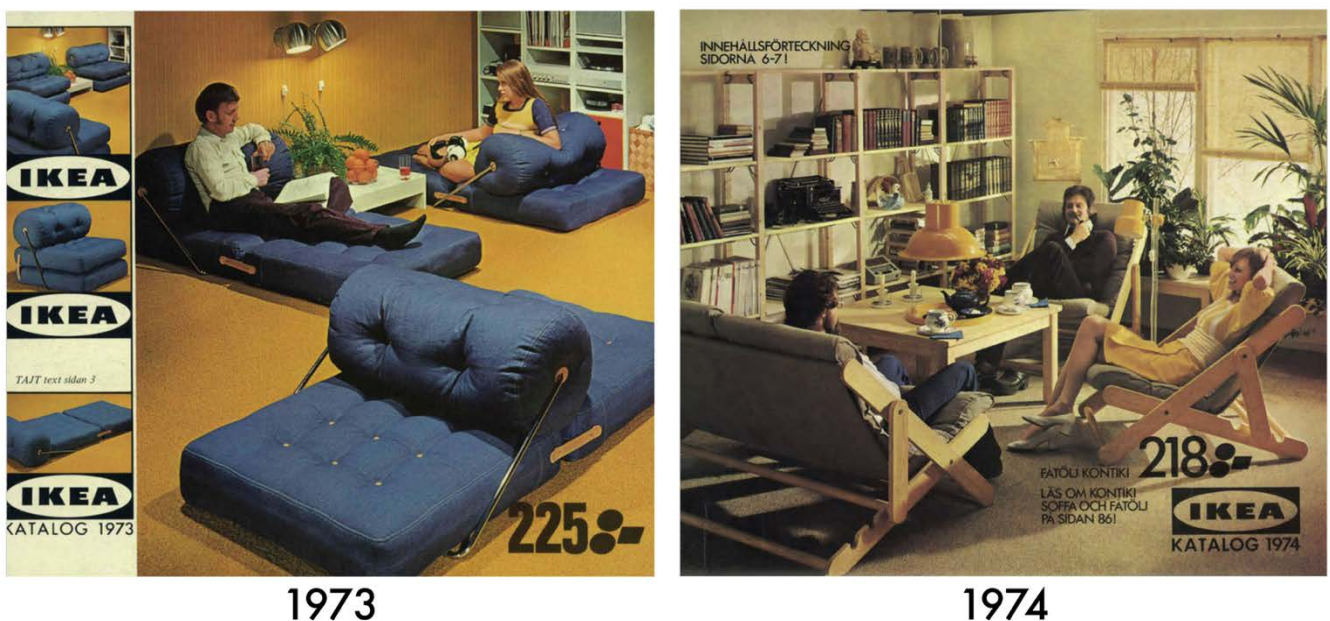


Figure 41 Selected IKEA Catalogue Covers showcasing people using the furniture. Years 1973 and 1974.

⁴¹ Trendafilov, Dimitar. "Design incorporated: IKEA as personal experience" (2018). Punctum. International Journal of Semiotics 4.1. Page 165. Print.

Through the evolution of the catalogue, IKEA established itself to be more than just a selling platform, it transformed into powerful storytelling platforms⁴² and lifestyle platforms. The catalogue, and the later IKEA website showcased curated experiences grounded in the platform of home. These were experiences that felt authentic and at a reachable distance to many.

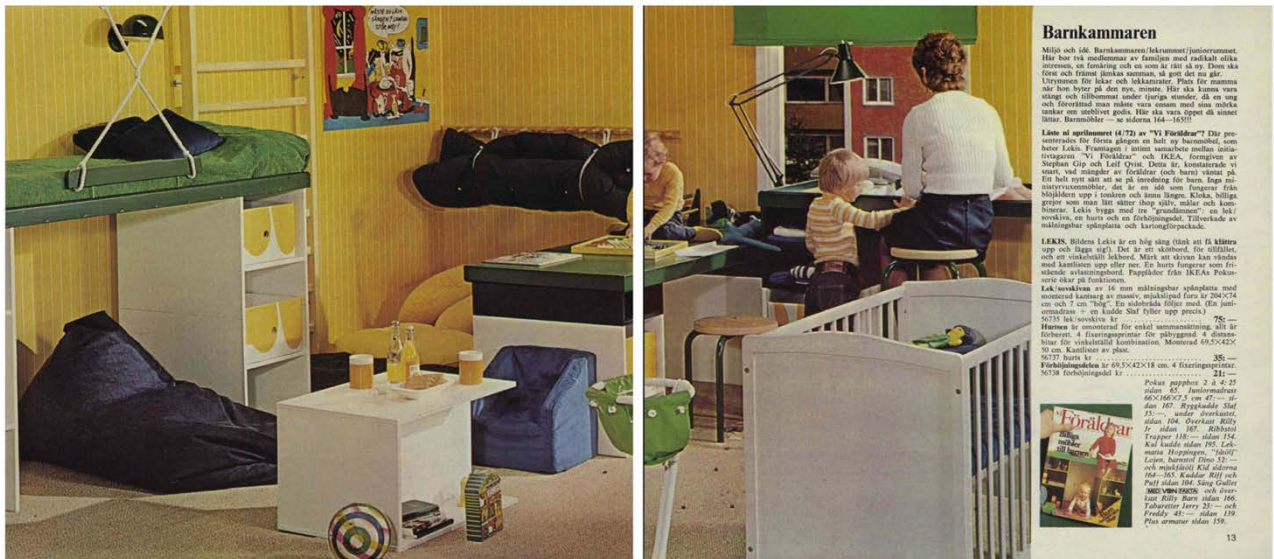


Figure 42 Set design of a 2-bed kids bedroom with children playing. IKEA Catalogue, 1973. Pages 12-13.

A beautiful example of the family lived experience is illustrated in this spread from 1973. There are two children playing in a children's room with their mother. The composition of the image adds to its authenticity. The child on the left (at page joint), is sitting on the desk countertop, playing a boardgame. Beside the desk, there is a blue seat and a wooden stool that are in a child-friendly in size (height). There are also marbles and stationery scattered over the floor in the middle of the photo – making the scene believable; as if the children have played and roamed through the space. That very experience of having a free-to-roam space for children is what IKEA sold to its customers, with broad appeal.

⁴² Trendafilov, Dimitar. "Design incorporated: IKEA as personal experience" (2018). Punctum. International Journal of Semiotics 4.1. Page 173.

It is important to note the contrast between IKEA's family-friendly interiors from the catalogues and the living room of High Sunderland Street (1956), discussed in Chapter 2, where the visual harmony and proportion of the couch in the space was prioritised over comfort. This contrast is a testament to IKEA's challenge of the views of MCM architecture.



Figure 43 Klein Shelley, "The See Through House: My Father in Full Colour" 2021. Print. Scan from page 40.

Analysis of IKEA's Modular Systems

In conjunction with the catalogues, IKEA's affordable modular furniture systems provided a platform where "customers' desire for designing their own, unique world of objects"⁴³ could be met. Products could be adapted to individual spaces and needs. Modular furniture systems allowed for the mass prefabrication of individual components of the system that could be combined and assembled by the user. Users could choose a combination depending on their needs, dimensions of the space and size of the objects that were to be held by the shelving system.

Modular furniture systems in general, transformed the role of furniture from that of simply storage or function into that of "defining space or prefabricating environments"⁴⁴. Although modular systems rose in popularity during the 1950s thanks to designers such as Charles and Ray Eames and Dieter Rams, it was IKEA that produced versions 'inspired' by the modernist principles but held at accessible price points. Consequently, more people were able to avail of modular furniture systems and IKEA became a home-making brand that could cater to any interior and help people create their own home experiences.

IKEA catered to a wide range of audiences with modular systems of varying levels of complexity. My analysis of the REBUS system concludes that it is a highly modular, almost free-form, system that required substantial planning and organisation from the customer side. Decisions on the number of columns as well as the overall height

⁴³ Trendafilov, Dimitar. "Design incorporated: IKEA as personal experience" (2018). *Punctum. International Journal of Semiotics* 4.1. Page 165. Print.

⁴⁴ Schneiderman, Deborah. "Furniture as Prefabricator" (2010). *Design Principles & Practice: An International Journal* 4.6 Page 256. Print.

of the unit had to be made. The plan would correspond to the number of wall-mounted E-rails and shelf support beams needed. Furthermore, the overall composition or layout of the system had to be decided in order to mix-and match from a set of shelving and cabinet units. There were 14 individual elements in the system that could be cross-combined, giving customers a high degree of choice. As a result, REBUS built was highly flexible at a cost of heavy cognitive involvement from the user.



Figure 44 REBUS modular system (left) and individual components (right). IKEA Catalogue, 1963. Pages 90-91.

As the REBUS system could have been intimidating for some, another product range called SYSTEM was introduced. The set had a choice of 11 individual units. The elements in SYSTEM were less abstract when compared to REBUS.

Instead of E-rails, support beams, shelves and cupboard elements, SYSTEM offered a range of stand-alone drawers, cupboard and shelving units that could simply be put beside or on top of each other. SYSTEM increased the ease of planning and assembly (accessibility) at the expense of flexibility and versatility. The planning was simplified to kinds and number of stand-alone units.



Figure 45 SYSTEM modular system (left). Individual components (right). IKEA Catalogue, 1963. Page. 94.

SPARTA set, from the 1963 catalogue, was the modular system with the lowest level of complexity. It also came at a cheaper price point.



Figure 46 SPARTA modular system. IKEA Catalogue, 1963. Page 98.



Figure 47 Individual modules of SPARTA modular system. Isolated by thesis author based on translation from IKEA Catalogue 1963 (Swedish Edition). Page 98.

SPARTA consisted of only four modules. A cabinet, TV Bench and two bookshelves that would go onto their respective base units. People could purchase (i) just the cabinets, (ii) a cabinet and a bookshelf, (iii) repetitions of the same cabinet and bookshelf module or (iv) a mix of all four elements in different amounts. Although this solution might seem inflexible when compared to REBUS and SYSTEM, it still managed to achieve the same goal of allowing customers to get storage solutions that suited their unique needs and spaces.

In 2023, IKEA's modular systems such as the BILLY bookshelf, KALLAX storage solutions or PAX wardrobes are still among the top selling products. Part of their success is the variety of sizes, number of compartments, as well as colours, finish, and inserts that work within their respective systems. In contrast to pre-defined shelving units, modular systems give the autonomy back to the user and allow for full customisation of the result. Although modular systems were invented by some of the leading MCM architects and designers, IKEA responded to the varied levels of skills and design effort that consumers (users) were willing to put in to select the best combination of furniture. IKEA's products were geared towards lower-effort clientele and provided simpler solutions, without leaving out the power users who wanted a fully modular product. IKEA's democratic design became much more than good design at good prices. It transformed into functional design accessible to people with all levels of design-proficiency, enabling people to take control over defining spaces and experiences within their homes.

Closing Discussion on IKEA's Democratic Design and selling of experiences

Throughout its evolution, IKEA transformed from a simple furniture selling company into a household name that, to many, means a positive and modern experience, “targeted towards one universally significant platform, home”. Homes became “the stage of everyday activities” and a “playground” for people to create an environment to suit their lifestyle.⁴⁵

The selling of experiences is still present in the brand's identity, around six decades later. In the digital realm, IKEA strikes the balance of showcasing the product in isolation in an arranged vignette (Figure 48) and as part of the dynamic family experience (Figure 49).



Figure 48 LISTERBY table shown in furniture arrangement. 2023. IKEA Website.

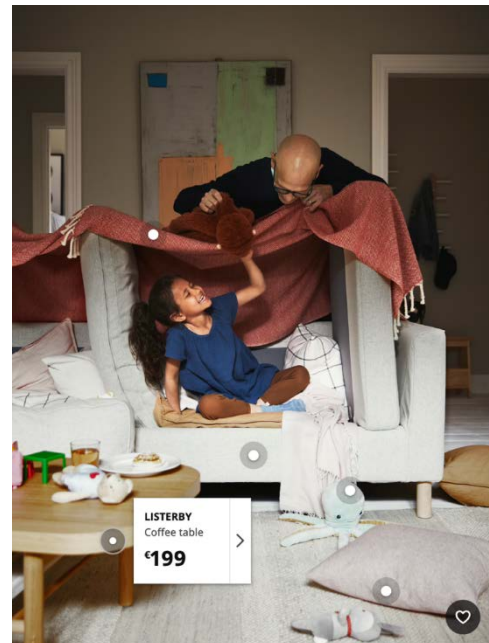


Figure 49 LISTERBY table shown as an element of a dynamic home scene. 2023. IKEA Website.

⁴⁵ Trendafilov, Dimitar. "Design incorporated: IKEA as personal experience" (2018) Punctum. International Journal of Semiotics 4.1. Page 175. Print.

The impact of IKEA is unprecedented. During the fiscal year 2023, 860 million people visited an IKEA Store.⁴⁶ The number of visits equals to 10% of the world population in 2023, showing how many lives are impacted by IKEA's design, values and experiences. In fact, this thesis has been written in a room with a MICKE desk, JÄRVFJÄLLET office chair, MALM chest of drawers and a BILLY bookshelf placed atop. Even though all the items are from different IKEA product lines, they are all in the same shade of white allowing for seamless blending and a harmonious interior – all at a student friendly budget.

Although IKEA made the modern lifestyle more affordable, the lower quality of design and materials might repel consumers who are willing to invest in life-lasting design pieces built with premium materials. Despite the objective difference in the quality, the same set of principles found in MCM design can be found in IKEA furniture and vision. It is important to mention, that the connection between MCM and IKEA products is often overlooked by the consumers, meaning they might not even realise what principles are affecting their life.

⁴⁶ Inter IKEA Newsroom, “Improving affordability for IKEA customers” Published: 12 October 2023. Accessed on 3 Nov 2023. Web. <https://www.ikea.com/global/en/newsroom/corporate/improving-affordability-for-ikea-customers-231011/>

The true impact of IKEA lies in enabling people to organise their own spaces through product lines that are functional, cater to varied audiences and can be assembled with relative ease. IKEA's prioritising of customer freedom and flexibility is a huge contrast to the works of mid-century architects and designers such as Le Corbusier, Dieter Rahms and Charles and Ray Eames that were often extremely prescriptive. The number of households which have IKEA products, and which subscribe to IKEA's commitment to good design at reasonable prices is way more than the numbers of people who could afford to access the design ideas of MCM's architects and bespoke designs. IKEA's influence goes far beyond the period of the modernist movement and the Bauhaus itself.

Conclusion

The examples analysed in this thesis focused mostly on luxurious home designs made for affluent artists, designers and architects alike the “internal inconsistencies and contradictions” within the modernist movement.⁴⁷ On one hand, modernism wanted to change the life of the public, on the other its elitism made modernist values unattainable to people who were not considered wealthy or educated. Le Corbusier had a particularly strong bias on how good design was a remark of luxury and high-class. In his work “The Decorative Art of Today”, Le Corbusier stated that:

“Those who struggle for their crust of bread have the simple ideal of decent lodging and they love to see the fanciest furniture [...] which gives them the feeling of wealth [...] and those well-enough endowed to have the ability and the duty to think.”⁴⁸

As seen in chapter 3, IKEA challenged such views and made modernist design accessible to people worldwide. It might be IKEA’s popularisation of functional and aesthetic home experience that contributed to the ongoing relevance of mid-century modern interior style and homes almost a century later.

It is evident in the success of The Modern House estate agency that “inspired by the principles of modernism” allows people to “live in more thoughtful and beautiful ways”.⁴⁹ The agency not only sold iconic pieces of MCM architecture since its founding in 2005, it became a platform for people to admire ‘good design’ and dream of experiencing it every day.

⁴⁷ Leslie, Deborah, and Suzanne Reimer. "Gender, modern design, and home consumption." *Environment and Planning D: Society and Space* 21.3 (2003). Page 293. Print

⁴⁸ Le Corbusier, *The Decorative Art of Today*. MIT Press (MA), 1987. Page 86-87. Print.

⁴⁹ The Modern House. About Section. Accessed on: 16 Jan 2024. Website Section.

<https://www.themodernhouse.com/about/>

Like the political and socio-economic turmoil of the early nineteenth century, humanity is facing numerous crises in 2020s. We have lived through the experiences of Covid-19, a cost-of-living crisis, inflation, military conflict, climate crisis and uncertainty caused by the emergence of AI. In times of such global-scale changes, we remember the importance the intimacy of our homes bears on the quality of life. In times of turmoil and uncertainty, we long for a safe cocoon and a space to regenerate in. At the time of completing this thesis, I am in my early twenties – looking at the possibility of moving out and beginning the new chapter of curating my own home experience. However, home ownership is something far beyond reach. This poses a question – how can we curate our own living experiences in a space that we do not own?

According to the United Nations, the world's population crossed the milestone of 8 billion on November 15, 2022. Creating innovative, sustainable and affordable housing experiences is not to be neglected. How can we best learn from the pioneering work of modernist architects and IKEA's democratisation of design to develop housing into flexible platforms for people from all walks of life? We need spaces that support good mental and physical health and that can be adapted to meet the unique needs of people young and old; families, those living alone and/or working from home. As our population grows, new design approaches are needed to make good living experiences accessible to all.

In contrast to the industrial designers and architects of the early twentieth century, we now live with a collective understanding of the climate crisis. We therefore cannot continue to design in a human-centric way. This thesis did not examine

the environmental impacts of home design, architecture, urban development and the operations of producers such as IKEA. However, it seeks to pose a question: how could we design a planet-centric living experience at home and at a local neighbourhood scale? An experience that: a) is empathetic to human users, b) allows humans and nature to co-habit, c) considers the planet and its resources at each stage of the design and construction process, d) can be adapted, iterated, and will remain desirable hundreds of years later?

If it is the ambition to create homes that are sustainable to develop and maintain and tackle population growth, all while providing a seamless living experience, I put forward the argument for the wider inclusion of UX Designers in domestic design projects. Although UX Designers may not be in possession of an architect's license, they bring a unique set of skills to the process. "The house would make no demands for itself and would serve as a background for life in work, with nature as shock absorber".⁵⁰ This statement by Charles Eames can be reframed as: homes should be a series of seamless experiences that positively contribute to the quality of our lives and foster connections to nature. The point can be developed further as to make domestic development environmentally regenerative and foster human connection with nature. The focus should be placed on how our homes work for us, not just how they look. As stated by Ray Eames: "What works good is better than what looks good because what works good lasts".⁵¹

⁵⁰ Case Study House No. 8. Eames Office. Accessed on: 17 Jan 2024. Web Article.

<https://www.eamesoffice.com/the-work/case-study-house-8/>

⁵¹ Cook, William. Charles and Ray Eames: The couple who shaped the way we live. BBC.com. Published: 18 Dec 2017. Accessed on 10 Oct 2023. Web. <https://www.bbc.com/culture/article/20171218-charles-and-ray-eames-the-couple-who-shaped-the-way-we-live>

Such ambitious vision could only be achieved through collaboration between urban planners, architects, UX Designers with expertise in multi-stakeholder considerations and complex problem solving, as well as environmental designers. Although it would make the design process more complex; the world of profit-driven housing could be challenged. As seen in the case study examples covered in this thesis, homes designed by architects who ventured into experiential design using the UX methodologies outlined in this dissertation, became influential on a level beyond materiality and style.

Works Consulted

Books

Allwright, Roberta Katheryn. *Special interest: Art Deco. Its history and influence on architecture.* 1997. California State University, Dominguez Hills. Print.

Colomina, Beatriz, and Mark Wigley. *Are We Human?: Notes on an Archaeology of Design.* Lars Müller Publishers, 2016. Print.

Demetrios, Eames. *An Eames Primer.* Universe Publishing. New York. 2001. Print.

Drexler, Arthur, et al. *The Architecture of Richard Neutra : From International Style to California Modern.* 1984. New York, Museum Of Modern Art. Print.

Gibberd, M. *Modern way to live: 5 design principles from the modern house.* Penguin Books Limited, 2020. Print.

Klein Shelly. *The See-Through House: My Father in Full Colour.* Vintage. 2021. Print.

Le Corbusier, *Towards a New Architecture.* Translated by Frederick Etchells, Dover Publications, Inc. New York. 1986. Print.

Le Corbusier. *The Decorative Art of Today.* Butterworth Architecture, 1987. Print.

McCoy, Esther. *Case Study Houses 1945-1962.* 1977. Print. As cited in Demetrios, Eames. *An Eames Primer.* 2001 Universe Publishing. New York. Print.

Rosner, Victoria. *Machines for living: Modernism and domestic life.* 2020. Oxford University Press. Print

Sbriglio, Jacques, and Le Corbusier. *Le Corbusier : L'unité d'Habitation de Marseille.* 2013. Marseille, Parenthèses. Print.

Wright, Frank Lloyd. *The Natural House.* Horizon Press. 1954. Print.

Lupton, Ellen. *Mechanical Brides : Women and Machines from Home to Office.* New York, Cooper-Hewitt National Museum Of Design/Smithsonian Institution, 1993. Print.

Journal Articles

Anderson, Fiona. *Bernat Klein and High Sunderland: Displacement, Design and the Meanings of Home*. 2021. *Journal of Design History*, Vol. 34, No. 4. pp. 332–348. Print.

Batty, Michael. *The conundrum of 'form follows function'*. 2022. *Environment and Planning B: Urban Analytics and City Science* 49.7. pp. 1815-1819.

DeFazio, Kimberly. *IKEA and Democracy as Furniture*. 2004. *Nature, Society, and Thought*, Vol. 17, No. 2. Print.

Du, Jun. *Design Philosophy and Methods of Alvar Aalto from the Ecological Aesthetics*. 2019. *International Journal of Literature and Arts* 7.4. pp 87-92. Print.

Faye E. Dudden. *Experts and Servants: The National Council on Household Employment and the Decline of Domestic Service in the Twentieth Century*. 1986. *Journal of Social History*, Winter 1986, Vol. 20, No. 2. pp 269-289. Print.

Kirchler, Erich. *Everyday life experiences at home: An interaction diary approach to assess marital relationships*. 1989. *Journal of Family Psychology* 2.3. Pp 311-336. Print.

Leslie, Deborah, and Suzanne Reimer. *Gender, modern design, and home consumption*. 2003. *Environment and Planning D: Society and Space* 21.3. pp 293-316. Print

Lin, Jing, et al. *Association of time spent in outdoor light and genetic risk with the incidence of depression*. 2023. *Translational Psychiatry* 13.1. pp. 40. Print.

López-Durán F., Moore N. *From France to Brazil and Back: Le Corbusier, Nature and the Ideal Human Type, 1925-1946*. 2016. In *Across Time and Space: The Politics of Architecture and Modernity*, edited by Patrick Haughey. New Brunswick/London: Transaction Publishers, pp 159-174. Print.

Meyers-Levy, Joan, and Rui Zhu. *The influence of ceiling height: The effect of priming on the type of processing that people use*. 2007/ *Journal of consumer research* 34.2. pp 174-186. Print.

Millais, Malcolm. *A critical appraisal of the design, construction and influence of the Unité d'Habitation, Marseilles, France*. 2015. *Journal of Architecture and Urbanism* 39.2 pp 103-115. Print.

Petridou, Elia. *The taste of home*. Home possessions. 2021. Routledge. pp 87-104. Print.

Petty, Margaret Maile. *Attitudes towards Modern Living: The Mid-Century Showrooms of Herman Miller and Knoll Associates*. 2016. *Journal of Design History*, Vol. 29, No. 2. pp. 180–199. Print.

Poon, S. *From Tubular Steel to Flat Pack: A Case Study Comparison Between Bauhaus and IKEA Innovation Leadership in Contemporary Design*. 2019. *Human Factors and Ergonomics Journal* 4.1. pp. 25-31. Print.

Rosenberg, Buck Clifford. *Scandinavian Dreams: DIY, Democratisation and IKEA*. 2005. *Transformations*. Issue No. 11—Edges and Centres. Print.

Schneiderman, Deborah. *Furniture as Prefabricator*. 2010. *Design Principles & Practice: An International Journal* 4.6. Pp 248-257. Print.

Sixsmith, Judith. *The meaning of home: An exploratory study of environmental experience*. 1986. *Journal of environmental psychology* 6.4. pp. 281-298. Print.

Stevenson, Rachel. *Living Images: Charles and Ray Eames "At Home"*. 2005. *Perspecta* Vol.37. pp 32-41. Print.

Trendafilov, Dimitar. *Design incorporated: IKEA as personal experience*. 2018. *Punctum*. *International Journal of Semiotics* 4.1. pp 165-178. Print.

Vartanian, Oshin, et al. *Architectural design and the brain: Effects of ceiling height and perceived enclosure on beauty judgments and approach-avoidance decisions*. 2015. *Journal of environmental psychology* 41. pp 10-18. Print.

Magazines

Entenza, D. John. *ARTS AND ARCHITECTURE*. 1949. Los Angeles. Volume 66, No. 12, December 1949. Pp 26-39. Print

Catalogues

IKEA Museum, *IKEA Catalogue*, Swedish Issues: 1950-1975. Print. Accessed between October-November 2023. IKEA Museum Web Archive.

<https://ikeamuseum.com/en/explore/ikea-catalogue/>

Moving Image

Alvar Aalto Foundation. *The Aalto House, Helsinki, Finland*. 2020.

<https://www.youtube.com/watch?v=Me8uYQltAXc> Accessed in February 2023. Web video.

Eames, Charles. *House: After Five Years of Living*. 1949-1955. Series of 35mm film transparencies shot over the period of five years. Moving image. Accessed on 10 Oct 2023.

<https://www.youtube.com/watch?v=CUC3kBpFUF0>

Gajda Radosław, Sześniak Natalia. *Architektura Na zdrowie! Czyli skąd wzięły się szpitale i przychodnie?* Translated by thesis author as *Architecture for health! Origins of hospitals and GP clinics*. YouTube video, Architecture is a Good Idea channel. Published on 19 February, 2023. 9:52. Translated by the author. Accessed on 22 February, 2023. Web video.

<https://youtu.be/hDbEowczkig>

Hicks Steward, *How This Mid-century Modern House Harnesses the Sun*, Published on: 10 March, 2022. Accessed on: July 2022. Web Video. <https://youtu.be/Qq-3cZ0cbws?si=BaChZ1sskk8o3iBs>

<https://youtu.be/Qq-3cZ0cbws?si=BaChZ1sskk8o3iBs>

IKEA Museum. *What is Democratic Design*. Moving Image. Accessed on 22 Oct 2023.

<https://ikeamuseum.com/en/explore/the-story-of-ikea/democratic-design/>

Lowry, Glenn. *Insecurities, and How Should We Live*. MoMA. Preview. Web video.

<https://www.youtube.com/watch?v=kltVGARh7xM>

Pierre Chenal. *Architecture d'aujourd'hui*. 1930. Planum Magazine. Movies Column no.2.

Moving Image. <https://vimeo.com/67793221>

Public Information and Training Motion Picture and Television Productions, *A Step Saving Kitchen*, 1949. National Archives Catalog. Moving Image. <https://catalog.archives.gov/id/1783>

Home DSGN. *Conversation Pits: Reviving Retro Design for Modern Times*. Published: 14 Aug 2023. Accessed on: 4 Oct 2023. Web Video. <https://www.youtube.com/watch?v=IYKEcbLoA4w>

<https://www.youtube.com/watch?v=IYKEcbLoA4w>

Podcasts

Gibberd, Matt. *Modern House Podcast*, Episode 1. 2020. Web.

Web Articles and Websites

Alvaraalto.fi. *The Aalto House - Alvar Aalto Foundation | Alvar Aalto -säätö*

Accessed on: Mar 2023. Web Article. <https://www.alvaraalto.fi/en/architecture/the-aalto-house/>

Björk, Christian. *The Myth of “Democratic Design” and Why the Concept Never Should Be Used Again*. Published: 09 Dec 2022. Accessed on: 28 Jan 2024. Web Article.

<https://www.parole.cc/compendiums/design-dna/the-myth-of-democratic-design-and-why-the-concept-never-should-be-used-again/>

Case Study House No. 8. Eames Office. Accessed on: 17 Jan 2024. Web Article.

<https://www.eamesoffice.com/the-work/case-study-house-8/>

Centre Des Monuments Nationaux. *Le Corbusier’s 5 points of Modern Architecture, Villa Savoye*.

Accessed on 15 Nov 2023. Web Article. <https://www.villa-savoie.fr/en/discover/le-corbusier-s-5-points-of-modern-architecture>

Chrisafis, Angelique. *Marseille's Cité Radieuse damaged by fire*. Published: 10 Feb 2012.

Accessed on 12 Jul 2023. Web Article. <https://www.theguardian.com/world/2012/feb/10/marseille-cite-radieuse-fire-damage>

Cook, William. *Charles and Ray Eames: The couple who shaped the way we live*. BBC.com.

Published: 18 Dec 2017. Accessed on 10 Oct 2023. Web.

<https://www.bbc.com/culture/article/20171218-charles-and-ray-eames-the-couple-who-shaped-the-way-we-live>

Eames Office. *Eames Furniture*. Accessed: 10 Oct 2023. Web.

<https://www.eamesoffice.com/works/furniture/>

Harvard Library, *TUBERCULOSIS IN EUROPE AND NORTH AMERICA, 1800-1922*.

Historical Views of Disease and Epidemics. Accessed on March 13, 2023. Web Article.

<https://curiosity.lib.harvard.edu/contagion/feature/tuberculosis-in-europe-and-north-america-1800-1922>

Hoffmann, Michele. Forbes. *The Case Study Houses Forever Changed American Architecture*.

Published on: 1 Feb 2021. Accessed on 11 Oct 2023. Web Article.

<https://www.forbes.com/sites/michellehoffmann/2021/02/05/the-case-study-house-program/>

IKEA Ireland. *The IKEA Vision, values and business idea*. Accessed on 22 Oct 2023. Web

Article. <https://www.ikea.com/ie/en/this-is-ikea/about-us/the-ikea-vision-and-values-pub9aa779d0>

IKEA Museum. *Explore life at home 1960s*. Accessed on 1 Nov 2023. Web Article.

<https://ikeamuseum.com/en/explore/life-at-home/life-at-home-1960s/>

IKEA Museum. *Explore life at home in the 1970s*. Accessed on 22 Oct 2023. Web

Article. <https://ikeamuseum.com/en/explore/life-at-home/life-at-home-1970s/>

IKEA Museum. *Read about BILLY bookcase from 1979*. Accessed on 22 Oct 2023. Web

Article. <https://ikeamuseum.com/en/explore/product-stories/billy-bookcase-1979/>

IKEA. *From humble origins to global brand – a brief history of IKEA*. Accessed on: 23 Oct 2023.

Web Article. [https://www.ikea.com/ie/en/this-is-ikea/about-us/our-heritage-](https://www.ikea.com/ie/en/this-is-ikea/about-us/our-heritage-pubad29a981#:~:text=Low%20prices%20and%20good%20quality,was%20not%20prepared%20to%20do)

[pubad29a981#:~:text=Low%20prices%20and%20good%20quality,was%20not%20prepared%20to%20do](https://www.ikea.com/ie/en/this-is-ikea/about-us/our-heritage-pubad29a981#:~:text=Low%20prices%20and%20good%20quality,was%20not%20prepared%20to%20do)

Ingels, Bjarke. *BIG Architecture*. Accessed March 2023. Website. <https://big.dk/>

Inter IKEA Newsroom. *Improving affordability for IKEA customers*. Published: 12 October

2023. Accessed on 3 Nov 2023. Web. [https://www.ikea.com/global/en/](https://www.ikea.com/global/en/newsroom/corporate/improving-affordability-for-ikea-customers-231011/)

[newsroom/corporate/improving-affordability-for-ikea-customers-231011/](https://www.ikea.com/global/en/newsroom/corporate/improving-affordability-for-ikea-customers-231011/)

Knoll.com. *Knoll Designer Bios. Florence Knoll*. Website.

<https://www.knoll.com/designer/Florence-Knoll>

Laubheimer, Page. *Personas vs Archetypes*. Nielsen Norman Group. Published on: 15 May

2022. Accessed: 02 December 2023. Web Article. <https://www.nngroup.com/articles/personas-archetypes/>

Masterclass. *4 Characteristics of Mid-Century Modern Design*. Last updated: 23 Jun, 2021.

Accessed on: 12 Feb 2023. Web Article.

<https://www.masterclass.com/articles/mid-century-modern-design-guide>

Naava. *In the Footsteps of Alvar Aalto: Naava and Biophilic Design*. Published 11 Jan 2022. Accessed Feb 2023. Web Article. <https://www.naava.io/editorial/in-the-footsteps-of-alvar-aalto-naava-and-biophilic-design#:~:text=Alvar%20Aalto%20was%20a%20master,or%20another%2C%20connected%20to%20nature>

National Agricultural Library. U.S. DEPARTMENT OF AGRICULTURE *Step-Saving Kitchens*. Web. Accessed on 04 Oct 2023. <https://www.nal.usda.gov/collections/stories/step-saving-kitchens>

National Museums Scotland. *Bernat Klein at National Museums Scotland*. Accessed on: October 2023. Web Article. <https://www.nms.ac.uk/explore-our-collections/stories/global-arts-cultures-and-design/bernat-klein-collection/>

Redwood Design System, Oracle. *Clarity of Purpose*. Accessed on 15 Nov 2023. Web Article. https://redwood.oracle.com/?pageId=COREE5885CA32C834FB_A90227747FDBFCF56&shell=simple-content

Tate. *Modernism (and what it was driven by)*. Tate.org.uk. Accessed on: 27 Sept 2023. Web Article. <https://www.tate.org.uk/art/art-terms/m/modernism>

The Courtland. *L'Unité d'Habitation Archives - Digital Media*. Accessed on August 2023. Web. <https://sites.courtauld.ac.uk/digitalmedia/tag/lunite-dhabitation/>

The Family of Art, Design and Performance Museums. *What is modernism?* Accessed on 27 Sept 2023. Web Article. <https://www.vam.ac.uk/articles/what-was-modernism>

The Mid-Century Modernist. *Mid-Century Modern Interiors*. Accessed on: Oct 2023. Website section. <https://midcenturymodernist.com/category/architecture-and-interiors/other-interiors/>

The Modern House. *About Section*. Accessed on: 16 Jan 2024. Website Section. <https://www.themodernhouse.com/about/>

Thorell, M. *IKEA and its Muses*. Schuylkill Valley Journal Online. Accessed on 1 Nov 2023. Web Article. <https://www.svjlit.com/features/ikea-and-its-muses-by-magaret-thorell>

Van Duysen, Vincent. *Interior Designs section of the website*. Accessed on: Mar 2023. Web. <https://vincentvanduysen.com/projects/interior>