

DESIGN BRIEFS

FROM THE REAL WORLD

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PAPER ABSTRACT: Design briefs in industrial design tend to be kept secret and have been poorly documented. This paper discusses an approach to demystifying design briefs using real world examples to better understand how they are used in practice. Additionally, there are examples of how a design brief has affected a design project positively and negatively. The author has traveled around the globe, including stops in Rhode Island, California, Argentina, Africa, Europe, Asia and Australia to interview industrial designers about their design processes. Interviews include designers from major corporations to batch manufacturers and large consultancies to one-person design studios. The interview transcripts were reviewed and analyzed and it was found that design briefs could be too broad as well as too narrow. Furthermore, design briefs are seldom fixed, static documents, but rather, they are often dynamic and evolve as the project progresses. Design briefs are part of the communication between the client and the designer. A well-formed design brief improves the chances of success because the goals and limitations of the project are made clear. However, the inherently ambiguous nature of design requires a fluid approach to design briefs. This paper will share diverse and vivid examples of design briefs through interviews conducted around the world.

Keywords: Design Brief, Design Process, Design Proposal, World Design, and Design Practice.



A world map showing the location of some of the interviews

1. INTRODUCTION

Design briefs have many different definitions depending upon whom you ask. For this paper, design briefs are a document written by the person or organization wanting the design completed. It is a

concise statement of the goals and limitations of the project. For clarity, this paper is not referring to design proposals, which are a document written by the designer explaining the process, timeframe, budget and deliverables of the project. With this in mind, what exactly do design briefs from the industry look like? I have learned that the problem with design briefs is that, frequently, they simply do not exist. That is, in many of the interviews the projects discussed started without a design brief. Additionally, when there are design briefs, they can be too broad or alternatively too limiting. Yet all the designers explained the need for clear communication with the client, to ensure success of the project. Due to the lack of a design brief, the designer frequently had to work with the client to decide upon the goals and limitation of the project. So, what should we as educators teach our students about design briefs? This paper will attempt to answer that question with a few stories from real life design projects.

2. LITERATURE REVIEW

Scholars from engineering, architecture, and business have inspired industrial design educators to use design briefs as a part of the design process. There are two basic methods of approaching the design process. The first approach is the desire to make the design process into a science, as best exemplified by John Chris Jones in his seminal book *Design Methods: Seeds of Human Futures* from 1970.¹ Jones was trained as an engineer, but after becoming interested in design methods, he became the first professor of Design from 1970-1974 at The Open University. With his engineering background, he suggested a systematic approach to understanding design methods.

The second method is a free-spirited approach to everything in life, including design. This approach considers the design process as a journey and is best exemplified by the book *The Universal Traveler: A Soft-System Guide to: Creativity, Problem-Solving, and the Process of Reaching Goals*, by Don Koberg² and Jim Bagnall.³ Koberg and Bagnall studied architecture and worked as architects together at Cal Poly from the late 1960's. By encouraging an open approach that focused on problem solving as a journey, they provided a guide, or map, that one could follow to get to the desired solution. This approach allowed many paths and many possible destinations (solutions). It was up to the designer to define the goal and to select the route to arrive at a solution. In *The Universal Traveler*, the authors suggest seven stages to problem-solving. There is no clear stage equating to a design brief. However, the third stage, *Define*, appears to be the most closely related to a design brief. *The Universal Traveler* states that the *Define* stage is determining the destination and that it is essential for success. The book specifically says the *Define* stage is "determining the main issues of the problem; conceptualizing and clarifying aims, ends, and goals of the problem resolution."⁴

More recently, in his paper *Design Brief: Requirements and Compliance*⁵, David Marchant suggests utilizing a computer coding approach to both briefing and designing. By linking the computer software used for briefing with the software used for designing, the two can be checked against each other for compliance. Marchant suggests this business approach helps to manage the extremely complex and dynamic nature of design briefs in architecture. Additionally, he proposes that it is critical to allow conflicts to exist during the design process, but to understand those conflicts.

In their paper *Design Briefs for Industrial Design Studio Courses: Determination of Expectations and Requirements*, Duysal Demirbaş and Sebnem Timur Ögüt suggest that the design brief is a very important first step of the design process in studio education. Furthermore, they found that students in practice often ignored the design brief. The paper concludes, “One of the key elements revealed by this study is the need to reconstruct some components of the Design Brief in such a way as to accompany the dynamic structure of the process, rather than remaining constant.”⁶ The authors further suggest the need “for a dynamic document, not even a document but a tool that will take place in a new medium.” If this is true, it points out a discrepancy between education and professional design practice.

3. METHODS AND PROCESSES

Today, 60 years after these two seminal books, the question of how one should teach designers to approach the design process and how important design briefs are to that process, remain unanswered. In an attempt to answer these questions, the author embarked on a journey around the world, interviewing designers about various design projects. The goal of this research was to learn about the real life design process, including the good, the bad, and the ugly. Designers were contacted and asked to give digitally recorded interviews. Interviews were one to three hours long and one or two design projects were typically the focus of each interview. All seven continents were visited; unfortunately, inclement weather in Antarctica made that interview impossible, because the seas were too rough to land (yes, there are designers in Antarctica). The interviews conducted for this paper are meant to obtain a better understanding to how design briefs were used as part of the design process. This study is not intended to be a complete survey of all countries around the world; rather the author has selected a number of case studies to illustrate how design briefs are used in the real world from a sampling of countries.

4. RESULTS: NO DESIGN BRIEF

4.1 SUBWAY COMPANY OF BUENOS AIRES BY PLAT STUDIO

In a number of the interviews, the designers revealed that the projects had no design brief. Furthermore, in the vast majority of cases, there was a design proposal prepared by the designer. This paper will focus on the design briefs, and the author will explore the design proposals in future publications. In some instances, rather than providing a design brief, the client asks designers to come up with a proposal on their own. For example, the Subway Company of Buenos Aires asked a select group of design studios to pitch ideas to them in a call for proposals for temporary installations in their subway stations. Federico Platener, a cultural producer and founder of Plat Studio, prepared a proposal for a subway station that would be a “living museum.” Specifically, the subway station proposal was to produce artwork to celebrate the soccer player Lionel Messi. In his interview, Platener stated that there was no design brief, and he described the project as totally open or free. This creative freedom allowed him to work with over 40 artists from around the world to create art that transformed the whole

station. The selected design of a 'living museum' was dynamic, changing many times over the four years of the installation.



Jose Hernandez subway station Messi installation in Buenos Aires created without a design brief

4.2 HOUSE OF MARLEY – CALIFORNIA BY LIFESTYLEDESIGN

A second example of a project with no brief came from an interview at LifestyleDesign in Santa Barbara, California. Marc Tappeiner, the founder of LifestyleDesign, was approached by an entrepreneur named Alon Kaufman, along with Rohan Marley, one of the sons of Bob Marley, with the idea to develop a new brand called **House of Marley**. During the initial meeting, Kaufman and Marley simply questioned Tappeiner about “what he wanted to do.” LifestyleDesign chose to present the Marley family and the entrepreneur with an immersive environment by plastering the walls with a visual brand idea centered on Bob Marley. Tappeiner asked the question, “What would Bob do if he were still alive?” The presentation brought the Marley family to tears. This experience helped the clients and the designers agree on a design brief that House of Marley would be a brand focused on sustainability, friendliness, and happiness. Once the brief was established, the designers went to work creating 52 new product



SKU's, which were introduced at CES 2009, just 6 months later. The tight deadlines and environmental focus allowed the designers to introduce a number of innovations, including fabric-covered enclosures and facades made of real bamboo.

Design process sketch, House of Marley speaker made with a real bamboo bezel

Presenting the designer with a question such as, “what would you do?,” rather than preparing a design brief stating, “this is what we want you to do,” is one way clients interact with a designer in the real world.

5. RESULTS: DESIGN BRIEFS MAY HAVE INTERNAL CONFLICTS

5.1 MOLTEN BASKETBALL – ITALY BY ITALDESIGN

The following story from Italdesign of Turin, Italy, is a great example of how a design brief can have internal conflicts. Molten, the sports ball manufacturer from Japan, asked Italdesign to develop a new design for a basketball. Molten wanted a design that was different than others on the market and that was easily recognizable as a Molten product. At that time, FIBA regulations required an eight-panel construction for the ball. Italdesign prepared several design proposals with eight panels, but also included the design shown below, which was made with twelve panels and allows the players to better see the spin of the ball. Molten loved the design so much that they petitioned to change the rules of FIBA to allow the twelve-panel design. Interestingly, the NBA in America still requires and uses an eight-panel construction, but the rest of the world has adopted the twelve-panel construction.

- The ball should be spherical (The ball should be used as basketball.)
- Specifications : International basketball standard
Weight : 569 grm - 610 grm
Circumference : 75 cm - 78 cm
- Material : Leather or synthetic leather
- The ball to be produced with the current production method, namely, to put the leather or syn. 8 leather panels on the carcass.
- The design of the ball to be different from that of the regular basketball.
- The design of the ball to be recognized as Molten's original design by the spectators and/or TV viewers.
- The ball should bear "Molten" logo on it.
- The design to be well accepted by European people.
- The playability of the ball should be accepted by players.



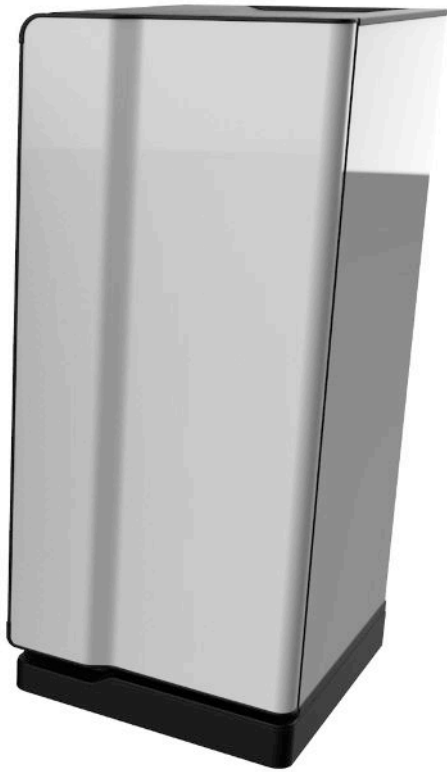
Molten Design Brief Given to Italdesign (formerly Giugiaro Design)

Solution selected by Molten (did not follow the briefs 8 panel rule)

5.2 TOSHIBA – THAILAND BY MONGKUT UNIVERSITY OF TECHNOLOGY

In 2006, Pornthep Chatpinyakoo, a professor at King Mongkut's University of Technology Thonburi in Bangkok, Thailand, proposed that Toshiba allow the design students to do a complete design process for refrigerators for the local market in Thailand. Previously, Toshiba had created refrigerator designs in Japan and then asked the local designers to design graphics and color choices to appeal to the local market. Toshiba agreed to the proposal and the students spent three months doing first-person research. The students traveled all over Thailand; to observe, interview and document how the Thai people use their refrigerators. One of the findings of the research was that the refrigerator did not need to have a handle. However, the design brief and previous refrigerator models have always had a handle and the student team could not convince the marketing team that they should make a refrigerator without one. Not long afterward, Toshiba's competitor, Mitsubishi, came out with a refrigerator without a handle. Their competitor gained significant market share with a handle-less design. Aware of the success of their competitor's refrigerator without a handle, Toshiba asked the University for help designing a handle-less refrigerator for the Thai market. Since Toshiba was not the first to the market, they needed other insights to further improve the design to gain back market share.

Toshiba provided a short design brief to Professor Chatpinyakoo and the students. The brief was titled “One-Door Refrigerator for Thai Market.” The brief asked for a handle-less door and also asked that



there be two or three sizes of refrigerators. Even though the design brief was titled **One-Door Refrigerator**, the Professor made sure that the students also explore if Toshiba should make a two-door refrigerator, since Thailand is one of the only markets that a one-door refrigerator was still the entry point into the market. However, after the students completed the research they found that they should stick with the one-door refrigerator. Professor Chatpinyakoo said the research showed that the Thai consumer does not like to be too organized, with separate compartments for specific uses, but instead prefers less doors and less shelves with more flexibility. This may be why the one-door refrigerator remains the primary refrigerator used in Thailand.

Additionally, their research revealed that the Thai people like to use the top of the refrigerator as a shelf. For example, some use it to dry fruit, and others use it to place a picture of a deceased family member creating a shrine on top of the refrigerator. The design brief did not require that this secondary use of the refrigerator be considered, however, the research phase added this consideration to the design.

Student rendering of Toshiba one-door refrigerator design for Thai market

6. RESULTS: DESIGN BRIEFS CHANGE

6.1 EM VISION MEDICAL DESIGN – AUSTRALIA BY TILLER DESIGN

Tiller Design, located in Sydney, Australia, provided a good example of how a brief can change from the outset of the design process. The University of Queensland put out a tender (design brief) asking for bids to translate university research into a marketable medical product. Researchers at the university had developed some interesting research that suggested using microwaves to image brain tissue. Rather than answering the tender for design and development with a design proposal, Tiller Design pitched the idea that a pre-proposal phase was needed before any design and development could begin. This pre-proposal was to explore the possibilities of what the product should be, who should use it, and how it should be used, and ultimately discover how the university’s research could be turned into a commercially viable product. They argued that this preemptive work was necessary to avoid wasting money and time designing and developing something no one needs or would want to use. Rather, Tiller proposed that they confer with hospitals, doctors, paramedics and medical technologists to find out

what was needed and how they currently cared for stroke victims. It was not until the end of this preemptive phase that a viable design brief and/or a design proposal could be written.



EMVision medical device brain imaging device

The process resulted in the creation of the EMVision Brain Imaging Device for stroke victims. The device is helping healthcare workers to more quickly diagnose the location and type of stroke a person is having, and therefore know what treatment to give the individual. Previously, this diagnosis could only be done with a CT scan, which is neither portable nor readily available at all hospitals.

Robert Tiller, founder of Tiller Design, has given up his CEO role at Tiller Design and joined EMVision as the director of design and development. He has continued to work with the investors as the company has grown and the project has worked through the rigorous and highly controlled process of testing and validating for new medical equipment. Speaking about medical design, Tiller stated, “The process involves many disciplines and can get messy but is highly regulated.”

6.2 T3 COUPÉ TRAM DESIGN – PRAGUE BY ANNA MAREŠOVÁ DESIGNERS

Designer Anna Marešová also experienced a change in a brief while working to design a tram for The Prague Public Transit Company. Anna was asked to design a tram based on the classic Tatra T3 tram. The T3 Coupé Prague Tram was built upon an original chassis from 1960. However, the new design had to be built from the chassis up as a convertible with open sides. It was to be an open-air tourist tram used for special events around the city. The tram was a collaboration between the engineers and



Anna Maršová with the T3 Coupé Prague Tram

workers at the tram company and the designer, working together to make the design a reality. The initial brief called for an open-air design. However, part way through the construction process there was a decision that the tram also needed to work in winter. This change required Anna to rethink how to winterize the convertible design to be usable in the winter. For design briefs it is important to remember: **change happens.**

7. CONCLUSION

Based on these interviews, what should we, as educators, share with our students about design briefs?

First, give the students a project with a well-defined design brief with clear goals, constraints, and deliverables. This will teach them what a design brief can be. However, don't always have a perfectly framed design problem with all the critical information the students need to complete the project, because this seldom happens in the real world. Rather, give the students a more open-ended project. E.g., a project where you ask the students "what would you do" if you were Bob Marley (insert the name of a randomly selected famous individual). This will allow the student to research the selected individual, as well as integrate things they are passionate about. This project would be excellent for second semester junior year, or senior year. Students must use the research to propose their own design brief, then complete the project with a short deadline.

Secondly, separate the 'design process' from the 'design brief.' As teachers, we are often both the client and the design manager formulating the design process. It is easy to merge the design brief and the design process to be one and the same. However, in a client/designer relationship, these two are interrelated but separate. The client presents the challenge/opportunity, whereas, the designer prepares the design proposal to solve the challenge or take advantage of the opportunity. Therefore, clarify that the design brief is the desire of the client, whereas the design proposal is the suggested process to achieve the client's desires. Corporate sponsored projects, like the Toshiba project from Thailand, will help faculty and students to separate the design brief from the project process.

Thirdly, teach students to embrace and accept change as a natural part of designing. It is human nature to resist change, whether the change is in regard to schedule, deliverables, or limitation. Often, to accomplish real change we have to be willing to adapt, redesign, and reconsider, to make the change a reality. Therefore, it is important to help students learn to embrace and adapt to change. The author recommends changing the brief midway through the project to introduce this reality to second year students.

Finally, encourage students to challenge the design brief with some of their concepts. Just like Italdesign did with the basketball concept for Molten.

¹ https://en.wikipedia.org/wiki/John_Chris_Jones

² <https://architecture.calpoly.edu/faculty/emeritus/koberg> Accessed April 2023

³ https://architecture.calpoly.edu/faculty/emeriti_interviews/bagnall Accessed April 2023

⁴ Koberg D. & Bagnall J. (1974) *Universal Traveler: A Soft-System Guide to: Creativity, Problem-Solving, and the Process of Reaching Goals*, W. Kaufmann

⁵ Marchant D (2016) The design brief: requirements and compliance, ITcon Vol. 21. Special issue CIB W78 2015 Special track on Compliance Checking, pg. 337-353, <https://www.itcon.org/2016/22>

⁶ Demirbaş, D., & Timur Öğüt, Ş. (2018). Design briefs for industrial design studio courses: Determination of expectations and requirements, *Eğitimde Nitel Araştırmalar Dergisi - Journal of Qualitative Research in Education*, 6(2), 42-58. DOI: 10.14689/issn.2148-2624.1.6c2s3m