

THE  
**SOCIAL DESIGN**  
TOOLKIT



Russell Pinkston

North Carolina State University  
College of Design

<http://design.ncsu.edu>

© Russell Pinkston 2021

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of the author or North Carolina State University

Printed in the United States of America

Master of Art & Design  
Spring 2021

Comittee:  
Tania Allen (Chair)  
Dr. Christian Doll  
Dr. Lesley-Ann Noel  
Dr. Traci Rider

**NC STATE UNIVERSITY**

# ABSTRACT

Designers are instigators of change, and the decisions they make can impact people's lives in unexpected ways. The ideology behind social design is that designers have a *social responsibility* to create positive change by prioritizing people in their decisions. However, the commercialization of design practice often puts several degrees of separation between the people who *design* products, the people who *make* them, and the people who *consume* them, leading to design which elevates the designer's process above people's needs.

There are several human-centered methodologies in existence across a range of disciplines (from cultural anthropology to design thinking), but these usually operate independently of one another, and each has its own unique constraints. The Social Design Toolkit offers a hybrid workflow called *participatory design thinking* that provides opportunities for these methodologies to overlap, placing human experience at the core of every design decision.

Herbert Simon defines design as "courses of action aimed at changing existing situations into preferred ones" (Simon 111), and social design is a holistic way of embracing cultural difference and reducing the social gap between the creators of culture and those who experience that culture. It is through this that we make design accessible and strengthen its output for everyone.

**“Concern for the environment and for the disadvantaged of our society are the most profound and powerful forces with which to shape design.”**

-Victor Papanek, *The Green Imperative*

# CONTENTS

<b>ABSTRACT .....</b>	<b>i</b>
<b>FIGURES &amp; TABLES .....</b>	<b>iv</b>
<b>CHAPTER 1: INTRODUCTION .....</b>	<b>1</b>
1.1 Methodology .....	4
<b>CHAPTER 2: CULTURAL HOLISM.....</b>	<b>7</b>
2.1 Natural Design.....	10
2.2 The Evolution of Style.....	14
2.3 Transculturation in Design .....	18
2.4 Pluriversality .....	22
<b>CHAPTER 3: DECOLONIZING DESIGN .....</b>	<b>30</b>
3.1 Design Hegemony.....	31
3.2 The Fetishism of Design .....	35
3.3 The Missionary Opposition .....	38
3.4 What We Can Learn from Anthropology .....	44
<b>CHAPTER 4: PARTICIPATORY DESIGN THINKING .....</b>	<b>48</b>
4.1 Social Motivation.....	48
4.2 Participatory Design .....	52
4.3 Conviviality .....	55
4.4 Design Thinking.....	58
4.5 The Hybrid Model.....	61
<b>CHAPTER 5: THE DIMENSIONS OF CULTURE .....</b>	<b>66</b>
5.1 Power Distance .....	68
5.2 Social Dependence .....	70
5.3 Gender Roles .....	72
5.4 Uncertainty Avoidance .....	73
5.5 Time Orientation.....	75
5.6 Indulgence .....	77
5.7 More About these Dimensions.....	79
5.8 Alternative Voices .....	79
<b>CHAPTER 6: THE SOCIAL DESIGN WORKFLOW .....</b>	<b>80</b>
6.1 Phase 1: Identification .....	80
6.2 Phase 2: Preconception.....	84
6.3 Phase 3: Realization.....	86
<b>CHAPTER 7: TOOLKIT AND PRECEDENTS.....</b>	<b>92</b>
<b>CHAPTER 8: REFLECTIONS .....</b>	<b>95</b>
<b>ACKNOWLEDGMENTS.....</b>	<b>97</b>
<b>REFERENCES.....</b>	<b>98</b>

## FIGURES & TABLES

Figure 1.1 - Inuit sunglasses.....	1
Figure 1.2 - wicked problems have no perfect solutions.....	2
Figure 2.1 - artist's rendering of the Voyager 2 spacecraft (NASA).....	7
Figure 2.2 - the Voyager discs.....	8
Figure 2.3 - Homo Habilis reconstruction (Elisabeth Daynes).....	9
Figure 2.4 - 2001: A Space Odyssey (Stanley Kubrick).....	9
Figure 2.5 - an "auto rickshaw".....	10
Figure 2.6 - the pyramids at Giza, Egypt.....	13
Figure 2.7 - artist's rendering of an Incan Ziggurat.....	13
Figure 2.8 - the evolution of cuneiform (University of Oregon).....	16
Figure 2.9 - the evolution of Cretan to English (Meggs).....	17
Figure 2.10 - Super Saiyan Colonel Sanders, Japan.....	18
Figure 2.11 - the Bauhaus Dessau building, built 1925-26, Germany.....	19
Figure 2.12 - color study by Josef Albers.....	20
Figure 2.13 - students of Albers' course at Black Mountain College, NC.....	20
Figure 2.14 - traditional Aboriginal art (Bevan Tjampitjimpa).....	23
Figure 2.15 - a Japanese tea ceremony.....	25
Figure 2.16 - a Moroccan man pouring tea.....	25
Figure 2.17 - the swastika (Reuters).....	26
Figure 2.18 - "Diversity Hands" (Oswaldo Guayasamin).....	28
Figure 3.1 - an Eritrean girl in Shousha Camp, 2011 (Mattia Insolera).....	30
Figure 3.2 - Volkswagen assembly line.....	32
Figure 3.3 - Sotheby's auction house.....	33
Figure 3.4 - "Raiders of the Lost Ark" (Paramount 1981).....	35
Figure 3.5 - the iPhone.....	36
Figure 3.6 - an iPhone factory, China.....	37
Figure 3.7 - Somalian refugees (Evelyn Hockstein).....	39
Figure 3.8 - Refugee Fashion (Angela Luna).....	39
Figure 3.9 - "Design for Social Impact" (IDEO).....	41
Figure 3.10 - One Laptop Per Child (OLPC).....	42
Figure 3.11 - Malinowski with the Trobriand Islanders.....	45
Figure 3.12 - Havaianas.....	47
Figure 4.1 - homeless man in Boston, MA.....	49
Figure 4.2 - the Incremental Housing Strategy, Bombay, India.....	51
Figure 4.3 - Bangalow, New South Wales, Australia.....	54
Figure 4.4 - MakeTools (Liz Sanders).....	57

Figure 4.5 - design thinking in action .....	59
Figure 4.6 - the typical design thinking model (Stanford).....	60
Figure 4.7 - an updated, collaborative model (Russell Pinkston) .....	60
Figure 4.8 - "The Empathy Toy" (Twenty One Toys).....	62
Figure 4.9 - "The Empathy Belly" (Ford Motor Company) .....	62
Figure 4.10 - the participatory design thinking model (Russell Pinkston) .....	65
Figure 5.1 - the dimensions of culture (Russell Pinkston).....	66
Figure 6.1 - identify the problem .....	80
Figure 6.2 - identify the constraints .....	81
Figure 6.3 - identify the stakeholders .....	83
Figure 6.4 - check your biases.....	84
Figure 6.5 - assumption personas .....	85
Figure 6.6 - participatory design thinking.....	86
Figure 6.7 - reflect.....	90
Figure 7.1 - IDEO's Method Cards.....	92
Figure 7.2 - <a href="https://socialdesigntoolkit.com/toolkit/method-cards">https://socialdesigntoolkit.com/toolkit/method-cards</a> .....	93
Figure 7.3 - the mobile site .....	94
Table 5.1 - Power Distance .....	69
Table 5.2 - Social Dependence .....	70
Table 5.3 - Gender Roles .....	73
Table 5.4 - Uncertainty Avoidance .....	74
Table 5.5 - Time Orientation.....	76
Table 5.6 - Indulgence .....	78

# CHAPTER 1: INTRODUCTION

From ancient cave paintings to post-modernism, one of the fundamental traits of humanity is our ability to create. Anthropologist Franz Boas once wrote that “there are no peoples without religion or without art” (Boas 634), showing that design exists as a formational factor in all the world’s cultures.

Throughout human history, we see examples of art and design as products of our ingenuity (like these clever Inuit sunglasses that protect against snow blindness – Figure 1.1). As the environmental factors people face vary from region to region, so do the designs they create. These designs, in turn, change the way people interact with the world, affecting the values and traditions emerging out of different cultures. This is the natural interplay between design and culture, with design arising as a product of cultural experience.



*Figure 1.1 - Inuit sunglasses*

One of the core drivers of design is a nearly obsessive urge to solve problems. It doesn’t matter whether these are your problems, somebody else’s, or if they even need to be solved in the first place. We just can’t help ourselves. This urge to improve ourselves and our environments is made more difficult as the problems facing the world become increasingly complex. The vast majority of issues we face today are human-made, with cultural, economic, and political influences that are constantly in flux. Centuries of colonialism and globalization have made our cultural systems into a twisted jumble of conflicting meanings, and so the problems that arise within these systems are based in a web of tangled connections that is perpetually unstable. These problems are what designer Horst Rittel famously dubbed “wicked problems:”

*a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing (Churchman).*

If you add to this the very real limitations on time and resources facing most design projects, you have a situation where, unfortunately, these wicked problems have no perfect solutions—only better or worse ones. A project whose aim is to bring healthy food options to rural and low-income neighborhoods might require ten years of research and development but only have the resources for six months. And so, the products of design often compromise what is *necessary*, what is *possible*, and what is *plausible*.



*Figure 1.2 - wicked problems have no perfect solutions*

Designing for this unstable world is like trying to rearrange a spider's web without breaking it. The practice of design must be exceptionally dynamic if it hopes to perform surgery in these twisted strands. To even begin to approach these problems in a lasting way, "we need to pursue design practices which weave themselves through the social

fabric without damaging it” (Douglas). But this is still not enough; to cause real, systemic change, design must not only be able to weave itself *through* the social fabric but must also be able to grow organically *within* that fabric as part of the same entity. To extend the metaphor: *only a spider can change its web*.

*So, how can designers spark systemic change from within communities?* This can be a difficult problem—but not one beyond solving. The solution is likely found in the relationship between designers and the stakeholders affected by design. For the most part, this relationship is one of inherent separation. Rarely do designers design for themselves; more often this relationship is unilateral, with designers inserting design objects into communities. In this dynamic, there is an unspoken assumption that stakeholders are not fully capable of solving their own problems, an assumption which tends to infantilize stakeholders and position designers as saviors of otherwise hapless locals (Tunstall 235).

As a species of problem-solvers, we can be sure that wherever people face adversity there will be attempts to overcome it. We are incredibly adaptable, and no one understands how to navigate the byways of cultural systems better than the people who are living within those systems. It seems logical, then, that designers might benefit from tapping into local knowledge and experience wherever possible. As design theorist Christopher Crouch writes, “collaborative design principles, where problems are addressed by designer and user together, are often the way forward in dealing with complex design problems” (Crouch 16).

We all have preconceptions about the world based on our own knowledge, experience, and resources (and it can be just as difficult for designers as anyone else to put these aside), but by working alongside the stakeholders of design we can expand our available knowledgebase and the range of possible (and plausible) solutions.

To grow design from within tangled cultural systems, we must re-position designers not as the authors of change, but as facilitators which enhance stakeholders' abilities to bring about change for themselves.

*Complex systems are shaped by all the people who use them, and in this new era of collaborative innovation, designers are having to evolve from being the individual authors of objects... to being the facilitators of change among large groups of people (Thackara 7).*

Put simply, the role of the designer must shift from someone who designs *for users* to someone who designs *with stakeholders*. This, of course, implies a release of control which could make some designers a little uncomfortable. However, the benefits of this are potentially manifold: Not only would the products of this collaboration be more culturally sustainable, but enabling stakeholders to engage in formal design practices themselves would re-position designers as the influencers of cultural *experience*—a much loftier goal that would allow the work of design to continue beyond the scope of project deadlines.

To borrow from Sir Walter Scott: *Oh, what tangled webs we find when first we practice to design*. The strange and tangled social webs we have woven for ourselves grow more chaotic by the moment, but it is within these frayed filaments of cultural systems that we may find the true potential of the designer—not as a mere meddler in other people’s problems but as an enabler of better, more egalitarian, futures for all humanity.

## **1.1 METHODOLOGY**

Combining methods from **cultural anthropology**, **design thinking**, **participatory design**, **user experience design**, and **cultural dimensions theory**, The Social Design Toolkit proposes a hybridized workflow called **participatory design thinking**, which aims to enable designers to better identify the biases that impact design outcomes. This workflow embeds crowd-sourced, participatory activities directly into the established design thinking workflow, helping designers instigate change from within communities by ceding some decision-making power to community members and building upon local knowledge.

If we consider design to be the act of planning an object, system, or activity, this suggests that the purpose of design is ultimately to bring about some kind of change;

perhaps a change in culture, experience, or behavior. If we compare this with a discipline like cultural anthropology, where the purpose is to study people and the cultural meanings found in societies, then we begin to see where these disciplines might overlap.

*...culture and design are not separate analytical domains or extensions of each other. Rather they are deeply entangled, complex, and often messy formations and transformations of meanings, spaces, and interactions between people, objects, and histories (Otto 13).*

The products of design are embedded in and imbued with cultural meaning. The emergent field of *design anthropology* holds that—in order for design to be culturally relevant—the methods used by designers must be similarly aligned with understandings of the cultural traditions, precedents, and belief systems of the people for whom design is intended. By adopting an anthropological mindset, designers can attempt to shift their focus toward broader social contexts, emphasizing the experiential aspects of design.

Several design methodologies have attempted to accomplish this. *Design thinking* in part aims to bridge the gap between designers and stakeholders by positioning empathy at the head of its process. Design thinking is an incredibly useful methodology for ideation and prototyping, but when not supplemented by deeper, qualitative, participatory research, it is still a *designer-centric way of thinking*. In order to connect design to real-world experience at a deeper level, we must go beyond mere empathy and find ways of bringing stakeholders into the process (see Chapter 4: Participatory Design Thinking).

In *user experience design*, we see something much more dynamic happening, where designers are including stakeholders in the design process by conducting user research with them directly through a range of observational and participatory methods. What this provides is a much more authentic connection to stakeholders that helps bridge this gap between designers and users. UX research is currently most utilized in the design of technologies and digital interfaces, but with the right tact this methodology can easily be

expanded to different types and scales of human-centered design.

According to Antoinette Carroll's *Equity-Centered Community Design Field Guide*:

*A designer is anyone who has agency to make a decision, however small, that will impact a group of people or the environment... In fact, a person may not have formal training or an official title as a "designer" to be a designer (4).*

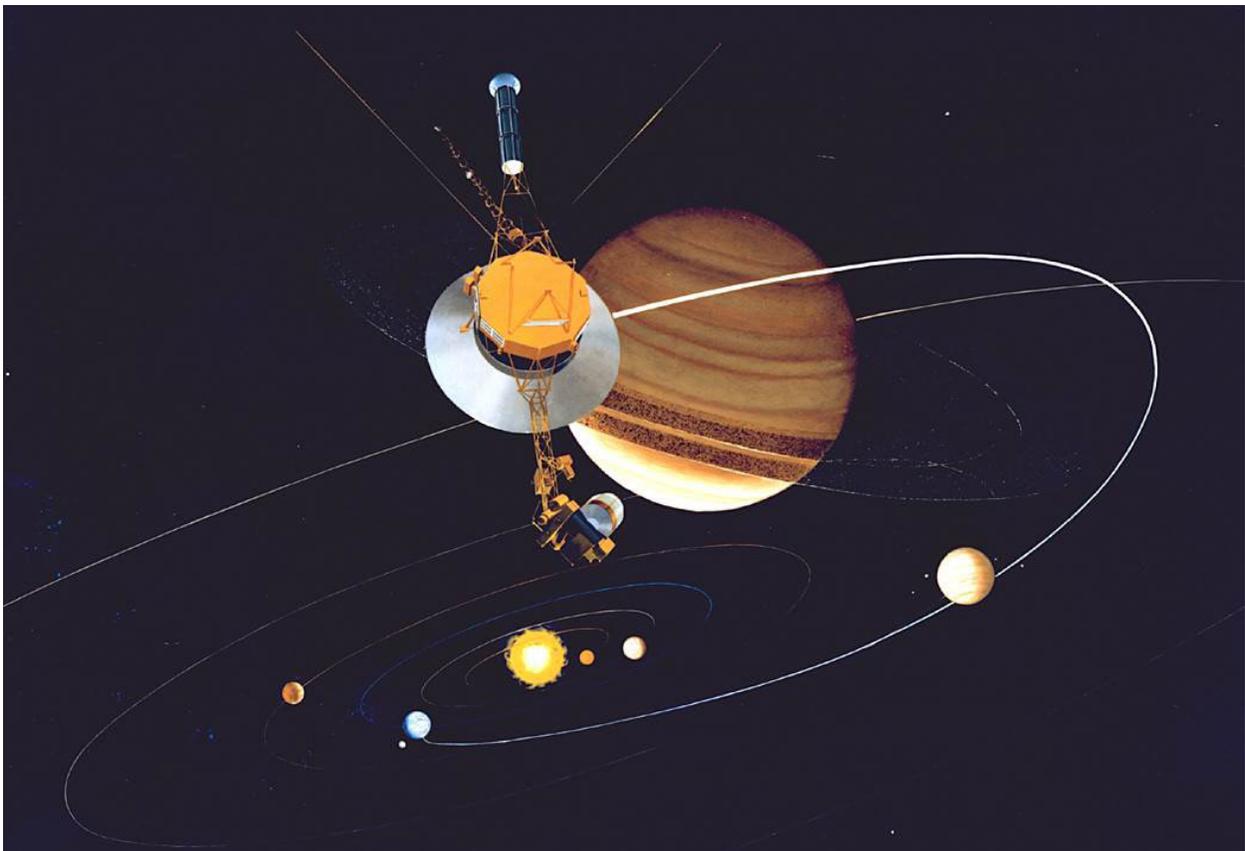
This is a relatively new mindset for the design industry, but if we think back to designs like those Inuit sunglasses, we see that it is an incredibly old concept for humanity. This mindset emphasizes local knowledge as being equal to design knowledge, which repositions designers not as the sole creators of cultural innovation but as instigators of change within communities who build upon local knowledge by embracing people's natural ability to solve problems.

*Participatory design thinking* aims to combine these methodologies through an understanding of their strengths and shortcomings—allowing them to supplement one another. The Social Design Toolkit provides the tools for designers to *connect to, collaborate with, and empower* stakeholders as a necessary part of creating experiential solutions. For example, this might mean that instead of designing temporary shelters for the homeless, designers would work with the homeless to better understand the systems that led to their circumstances and to find ways for them to reintegrate with society.

Social design is a process of collaborative, root-cause analysis that initiates change from within cultural systems in experiential ways, rather than by simply implanting commercial products into those systems.

## CHAPTER 2: CULTURAL HOLISM

In the late summer of 1977, NASA launched the Voyager space mission from Cape Canaveral, Florida. Because of a rare planetary alignment, astronomers had the opportunity to send probes to photograph the distant planets Jupiter and Saturn, which had previously been little more than blurry dots on our most powerful telescopes. The two probes would perform flybys of these planets and transmit their pictures back to Earth before skipping out into the cosmos like stones across the pond of our solar system.



*Figure 2.1 - artist's rendering of the Voyager 2 spacecraft (NASA)*

The mission was a resounding success: Voyagers 1 and 2 did their flybys, Voyager 1 was the first spacecraft to cross over into interstellar space, and, as of this writing, they are the most distant human-made objects in the universe (Reynolds). As tremendous an achievement as this is, what continues to captivate people more than 40 years later is not the photographs the Voyager probes sent back but, rather, the symbol of humanity they

represent.

Upon completion of their flybys, the Voyager probes were given a secondary mission. Prior to launch, NASA had been very mindful of the fact that they were sending human technology into the unknown reaches of space where there might exist some form of extraterrestrial intelligence. As such, they included on each probe a gold-plated disc containing a wealth of information about humanity, a sort of “message in a bottle,” proclaiming to the cosmos what it means to be human.



*Figure 2.2 - the Voyager discs*

The task of curating this content fell on renowned astronomer Carl Sagan, whose charge was nothing short of distilling the essence of humanity onto two small disks not unlike vinyl music records. While each of the discs contained information detailing our human anatomy, Sagan felt this was insufficient to encapsulate the whole of our human experience. So, he also included information from a broad range of cultures: photographs depicting food, architecture, and the daily lives of various peoples; selections of music from wildly different cultures; spoken greetings in 59 languages; and other human sounds, like

laughter. Should distant travelers ever discover these probes, the portrait of humanity they receive will be exceptionally diverse.

As the Voyager discs exemplify, being human is not a singular experience but a myriad of alternative and conflicting perspectives. That which makes us human is found in our diversity—in the fact that we possess, as a species, the innate drive to reimagine ourselves. Though the cultures and traditions of all the world’s people vary sometimes beyond recognition, the fundamental element that links them all together is that they exist. There is no branch of humanity devoid of cultural influence.

Humans by their very nature are creators, organizers, and designers. Our humanity—that original human instinct which makes us who we are and separates us from the rest of the animal kingdom—is our desire to design and to refashion our environments. Our most ancient “human” ancestor, *Homo Habilis* (the earliest primate to be classified in the genus *homo*), is classified as such because of his undisputed use of tools. From the moment we first picked up a rock and lashed it to a stick, we became not only humans, we became designers. The two are inseparable.



Figure 2.3 - *Homo Habilis* reconstruction (Elisabeth Daynes)



Figure 2.4 - *2001: A Space Odyssey* (Stanley Kubrick)

From this moment on, the experience of being human has diverged and converged in a hundred million different ways, diffusing into a patchwork *mélange* of scrambled transculturation that has become impossible to define with any singular vision. The world is made up of incalculable cultures and subcultures, each of which is interconnected and none of which are stable or complete. But that does not mean they are without order; once we accept that every human possesses the ability to design, it becomes much easier to understand *why* there is such complexity to the human experience—and why this complexity should be embraced.

## 2.1 NATURAL DESIGN

Humanity is such an incredibly diverse species because our existence transcends our biology and enters the realm of imagination where we perpetually redesign our experience of reality. On a basic level, the influence of environmental factors changes our needs, presenting us with unique problems which we must find ways of overcoming. We do this through design, by creating solutions to these problems influenced by environmental experiences that then lead to shared values and norms (i.e., *cultures*).

This is the natural interplay between design and culture, with design influencing (and being influenced by) cultural experience. However, this is unstable because of the broad range of socioeconomic factors—such as migration, transculturation, and globalization—that affect this dynamic. Over time, social scientists have devised several theories which attempt to pin down how this process works and what it all means. While this is, admittedly, a murky task, it has been made even murkier by the



*Figure 2.5 - an "auto rickshaw," designed specifically to navigate crowded Indian streets*

hegemonic trappings of imperialism.

19th-century German anthropologist Adolf Bastian wrote about what he called the “psychic unity of mankind” —the belief that humans all share a basic mental framework upon which cultures are built. This framework, as he put it, was made up of elementary ideas (*elementargedanken*) that develop into locally variable folk ideas (*völkergedanken*). These folk ideas were contingent upon geographic location and historical background. Because of this, he argued, people from the same time and place who share the same histories develop similar folk ideas and thus synthesize into a type of group mind (or *gesellschaft*).

This idea greatly influenced the work of psychologist Carl Jung, who developed this notion into the concept of the “collective unconscious”—that certain structures of the unconscious mind are shared by all humans. He argued that people have unconscious (or hereditary) knowledge beyond that of their empirical experiences, which manifests into certain archetypes (collectively inherited ideas or images) which exist in several disparate cultures: tropes like the great mother, the wise old man, the shadow, the tower, the tree of life, etc. (Jung 6,43). “The psyche,” he wrote, “contains all the images that have ever given rise to myths” (Jung 7). Of course, we also see this idea echoed in the work of Joseph Campbell and his *Hero With a Thousand Faces*.

Adolf Bastian’s theories, however, became increasingly influenced by Darwinian ideas of selective inheritance, and he (as well as contemporaries like Herbert Spencer and Henry Morgan) became a proponent of a unilinear evolutionary principle where the underlying assumption was that cultural evolution leads to the growth and development of civilization. The proposed evolutionary stages of this theory moved from “savagery” to “barbarism” and finally to “civilization,” claiming that the more complex social structures of Europe were more evolved than the tribal structures of places like Africa and the Americas. The fallacy here was the racial bias created by European colonialism (Uddin). Though he had traveled widely and spent many years among the people of Africa, Burma, Siam, China, etc., Bastian was swayed by the prevailing racism and nationalism of his people, unsatisfied

by his original theory—that the differences between cultures were the result of different geographic and historical influences.

It wasn't until the 1920s that anthropologists like Bronislaw Malinowski in England and Franz Boas in America began to dispel this evolutionary theory in favor of structuralism, functionalism, and cultural relativism. Boas believed that the differences between cultures were the result of historical, social, and geographic conditions; his ideas on historical particularism proclaimed that each culture has a unique history and that we cannot assume that universal laws govern the ways these cultures operate. This was a multilinear approach to cultural evolution whereby cultures were not compared to one another but were assessed uniquely.

Interestingly, Boas also noted several examples of what he referred to as the “parallelism of development” of disparate cultures, saying, “we find that the same custom, the same idea, occurs among people for whom we cannot establish any historical connection” (Boas 634). For example, both the ancient Egyptians and the Incas created pyramids (or ziggurats) to honor their gods. In the same respect, most utterly disconnected cultures have created writing systems, myths, mathematics, and agricultural practices completely independently of one another.

So, how do we reconcile this? How can it be that cultures develop both uniquely and in parallel? While at first this may seem like a discrepancy which provides evidence for Bastian's theories of “psychic unity,” there is, perhaps, a simpler explanation: that we each possess the ability to independently interpret and reinvent our realities. If we accept this as a fundamental trait of humanity, this means that throughout history there have been millions (if-not-billions) of different interpretations of reality at any given time. It seems natural, then, that these interpretations might repeat or come into conflict occasionally, sometimes influencing one another and other times reaching the same conclusions independently.

The important qualification here is that there is no single, unilinear path upon which cultures develop but rather an unceasing barrage of paths that exist within every human,



Figure 2.6 - the pyramids at Giza, Egypt



Figure 2.7 - artist's rendering of an Incan Ziggurat

greatly increasing the likelihood of repetition and diffusion. With this barrage, all things are possible, yet cultural evolution (in an ironically Darwinian twist) tends to follow designs which address common problems.

## **2.2 THE EVOLUTION OF STYLE**

Cultural “styles,” do not emerge arbitrarily, but are the product of a wide array of social, political, spiritual, and formal factors coming together to create an expression of *zeitgeist* (the *spirit* of an era). But what catalysts bring about these cultural paradigm shifts? Though Franz Boas noted many examples of the parallelism of development of cultural designs, he also noted that cultural development is not a completely independent process; rather, there seems to be some interplay between indigenous development and exogenous influence. Cultures are not discrete objects but tend to diffuse outward, blending in incalculable ways. As this happens, acculturated designs take on new meanings:

*All cultural forms rather appear in a constant state of flux and subject to fundamental modifications... A transfer of customs from one region into another without concomitant changes due to acculturation, are very rare... In geographically extreme areas... distinct types of social organization occur, the intermediate regions showing transitional types (Boas 284, 286, 290).*

As Boas suggests, styles flow from one culture to the next as people interact, changing a little bit each time until finally becoming part of that newly hybridized culture. This process, to put it mildly, is unstable. The ebbs and flows of cultural ideals are ephemeral and forever incomplete simply because the cultures upon which they depend are constantly in flux. Design, thus, is never simply *form* nor *function*—neither wholly stylistic nor utilitarian—it is, instead, a combination of the two, addressing current needs based on shifting cultural values and expectations.

As we trace the movements and evolutions of styles throughout history, we can see how tightly grafted design is to culture, with culture influencing design as a reflection of the

zeitgeist and design, in turn, contributing to the evolution of culture. Design historian Phillip Meggs points out the importance of graphic design, in particular, to this process:

*The immediacy and ephemeral nature of graphic design, combined with its link with the social, political, and economic life of its culture, enable it to more closely express the zeitgeist of an epoch than many other forms of human expression (Meggs viii).*

By distilling graphic design to its most elemental form as cultural symbols and writing, one can trace the diffusions of cultures by tracing the historical diffusions of languages. Language is a central, defining factor of every culture. It not only allows for the transmission of basic values, myths, ideas, and archetypes, it also defines how we communicate and what meanings we embed in the things we say. But, when we look more closely at the history of our written languages, we find that their visual symbols are overwhelmingly foreign in origin. As an example, let us consider the symbols which make up the English language. To do so, we must look not at the history of Anglo-Saxon visual culture but, rather, at the history of ancient Mesopotamia.

The earliest prehistoric Mesopotamian visual communications were made up of pictographs, elementary pictures or sketches that represented specific objects. To represent the stars, for example, ancient authors would sketch out rudimentary drawings of something like an asterisk with lines radiating from a center point. This system, over time, evolved to embody more abstract ideas and concepts, where that same drawing of a star became an ideograph representing the abstract ideas of god or sky. These early symbols, which were recorded mostly for ritual purposes, were eventually simplified into a writing system known as cuneiform, a system of abstract lines and symbols which represented certain ideas only because of the cultural meanings attributed to them.

Through war and trade, cuneiform spread to Egypt where it branched off into a separate system known as *hieroglyphics*. But to the North and West, as Phoenician trade

networks spread cuneiform to the island of Crete and the northern Semitic tribes of Syria, it was again adopted (and adapted) by these people. In this process, the hundreds of signs and symbols required by cuneiform were replaced by a few dozen easily learned phonetic symbols (or alphabets). From Syrian Aramaic, these letterforms became the Hebrew alphabet and Arabic scripts. From Cretan, they became Greek, then Latin, and eventually English. Supposedly, Alexander the Great's libraries spread Greek culture and writing systems throughout the world to the extent that the ancient Druids of Celtic lore may have actually written some of their mystical knowledge in Greek (Caesar VI.14.3).

PICTOGRAPHIC SIGN c. 3100 BC									
INTERPRETATION	star	?sun over horizon	?stream	ear of barley	bull's head	bowl	head + bowl	lower leg	?shrouded body
CUNEIFORM SIGN c. 2400 BC									
CUNEIFORM SIGN c. 700 BC (turned through 90°)									
PHONETIC VALUE*	dingir, an	u <sub>4</sub> , ud	a	še	gu <sub>4</sub>	nig <sub>2</sub> , ninda	ku <sub>2</sub>	du, gin, gub	lu <sub>2</sub>
MEANING	god, sky	day, sun	water, seed, son	barley	ox	food, bread	to eat	to walk, to stand	man
* Some signs have more than one phonetic value and some sounds are represented by more than one sign. U <sub>4</sub> means the fourth sign with the phonetic value u.									

Figure 2.8 - the evolution of cuneiform (University of Oregon)

With this example, we see how a written language as fundamentally Mesopotamian as cuneiform can move from one culture to the next, diverging as it is adopted by each subsequent culture, evolving from something foreign into something native. As Boas notes:

*All special cultural forms are the products of historical growth... the introduction of new ideas must by no means be considered as resulting purely mechanically in additions to the cultural pattern, but also as an important stimulus to new inner developments... independent development as well as diffusion has made each culture what it is" (Boas 290, 291, 436).*

Early Name	Probable Meaning	Greek Name	Cretan pictographs	Phoenician	Early Greek	Classical Greek	Latin	Modern English
Āleph	Ox	Alpha						
Bēth	House	Bēta						
Gimel	Camel	Gamma						
Dāleth	Folding door	Delta						
Hē	Lattice window	Epsilon						
Wāw	Hook, nail							
Zayin	Weapon	Zeta						
Hēth	Fence, Barrier	Ēta						
Tēth	A winding (?)	Thēta						
Yōd	Hand	lōta						
Kaph	Bent Hand	Kappa						
Lāmed	Ox-goad	Lambda						
Mēm	Water	Mu						
Nūn	Fish	Nu						
Sāmek	Prop (?)	Xei						
' Ayin	Eye	Ou						
Pē	Mouth	Pei						
Sādē	Fish-hook (?)							
Kōph	Eye of needle (?)	Koppa						
Rēsh	Head	Rho						
Shin, sin	Tooth	Sigma, san						
Taw	Mark	Tau						

Figure 2.9 - the evolution of Cretan to English (Meggs)

In other words, unique cultural styles are often created as a process of outside influences triggering internal adaptations. This is essentially a passive, ancient form of globalization at work. As the people of disparate cultures intermingle, cultural styles merge and are reinvented.

## 2.3 TRANSCULTURATION IN DESIGN

It is perhaps an ironic phenomenon that, as the world becomes more interconnected, the daily lives of people become more individually varied. A yoga instructor in Omaha, for example, might share more cultural overlap with the people of India than with her own neighbors. A teenager in Bangalore may daydream about American life as depicted by Hollywood cinema. This intermingling of influences leads to internal adaptations in each culture, but some would caution that things can get lost in this transaction.

As mentioned previously, the diffusion of cultures among different groups of people is not a stable process and usually leads to hybridized *acculturation*—modifications and adaptations of cultural traits as they diffuse. As Cuban anthropologist Fernando Ortiz notes:

*I am of the opinion that the word transculturation better expresses the different phases of the process of transition from one culture to another because it does not consist merely in acquiring another culture (acculturation)... but the process also necessarily involves the loss or uprooting of a previous culture (deculturation)... and it carries the idea of new cultural phenomena (neoculturation) (Ortiz 102).*



Figure 2.10 - Super Saiyan Colonel Sanders, Japan

Foucault tells us that any declaration of what is true, once it becomes true for you, will begin to have power over you—that you will become its host body. Thus, the effects of *transculturation* can be viral, using cultural infrastructures as hosts through which to spread ideologies.



Figure 2.11 - the Bauhaus Dessau building, built 1925-26, Germany

Just as we can track the flow of languages from one culture to the next, so too can we track the flow of design styles. Take, for instance, the German Bauhaus and its influence on American design theory. The Bauhaus, an innovative Art and Architecture school founded by Walter Gropius in Germany in 1919, pioneered a modernist ideal that followed Germany's defeat in World War I. The German artists of this time had a renewed liberal spirit to experiment with styles influenced by the Arts & Crafts movement and Soviet constructivism. The zeitgeist of the German people had turned from the fanciful styles of Expressionism and toward more functional, minimalistic styles. The United States, at

this same time, was in the throes of a very different, Gatsby-esque period of Art Deco extravagance. What caused these two styles to merge was the diaspora created by the onset of World War II.

When many of the founders and professors of the Bauhaus fled Hitler's Nazi Germany in the 1930s, they sought refuge in the United States, where they continued to teach German modernist principles in schools like the infamous Black Mountain College in North Carolina. As the influence of the Bauhaus seeped into American design, we began to see the emergence of post-war modernist architecture. By tracing this transculturation, we see how British and Soviet ideologies became German and then American, culminating in the 1950s-era utopian ideals of suburban bedside communities. It makes one wonder just what American society might look like today if not for this foreign influence.

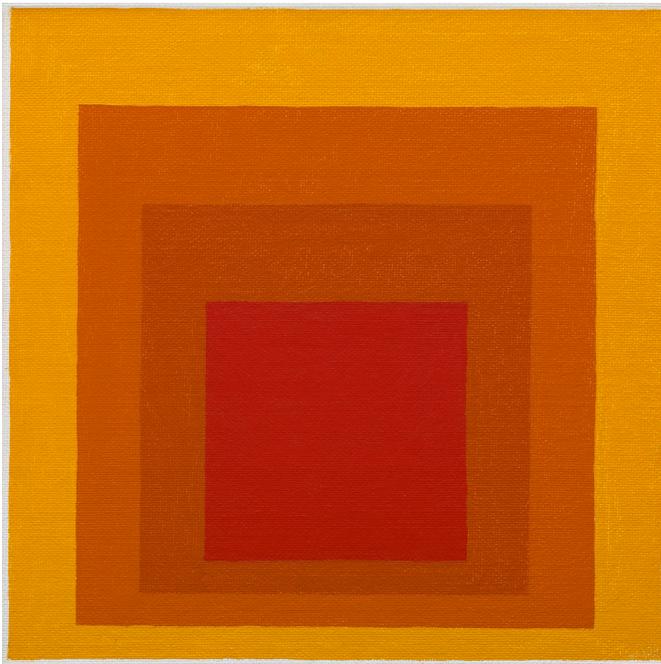


Figure 2.12 - color study by Josef Albers



Figure 2.13 - students of Albers' course at Black Mountain College, NC

Continuing this trail of breadcrumbs, India's **National Institute of Design** was formed using guidelines written by American modernist designers **Charles and Ray Eames**. In 1958, the two industrial designers toured India for three months (at the invitation of the Indian

government) to explore what was perceived as the deterioration of Indian design and the declining quality of consumer goods. In the subsequent *India Report*, the Eames' laid out their recommendations for a new training program there based on modernist principles. With this example, we see the transitory and integrated nature of culture—that no culture is truly unique nor discrete but rather every culture is an interwoven quilt of influences.

Transculturation occurs passively on large and small scales every day as people move and interact. The question is whether some programs of active transculturation like *The India Report* work to enhance cultural knowledge or to supplant it. Sociologist Frank Lecher writes that “as programs and institutions become global, they must displace existing, locally variable programs and institutions” (Lechner 3). Does transculturation breathe new life into a culture, or can it be a tool of colonialism?

The point here is not to rile xenophobia, but to provide historic examples of how transculturation can fundamentally alter cultural perceptions. Transculturation is not necessarily a negative force, but designers must be aware of the potential for knowledge to be lost in the process. To mitigate any possible damages, designers must work within and alongside cultural systems at both global and local scales. This begins with understanding the discrepancies that exist between the lived and the imagined realities of people.

Indian-American anthropologist Arjun Appadurai writes that global cultural flows are “the building blocks of... imagined worlds” (Appadurai 33). As he suggests, the complexity of globalization has to do with fundamental “disjunctures” between lived realities and imagined realities which are “profoundly unpredictable because each... is subject to its own constraints and incentives... inflected by the historical situatedness of different sorts of actors” (Appadurai 33-34).

In order to break free of our reliance on imagined preconceptions about people's lives and instead embrace empirical understandings of those realities, we need new tools and methods that foreground this ideology. With an awareness of the ways people, money, power, and ideas move within and among culture, designers can better understand from

where their ideas originate and in what ways these preconceptions might be disrupted.

## **2.4 PLURIVERSALITY**

As design theorist Victor Papanek writes: “It is not possible to just move objects, tools, or artifacts from one culture to another and then expect them to work” (Papanek 18). Instead, we must find methods of adapting design to fit within existing, locally variable values and attempt to understand where incompatibilities may arise. To design in a way that is culturally sustainable means being open to the range of experiences stakeholders bring to the equation. It is through this that we may learn from each other’s wisdom without losing that which makes us unique.

The pioneer of the concept of Holism, Jan Smuts, famously wrote that “the whole is more than the sum of its parts.” This is likely one of the best-known maxims in the Western world, and yet the concept itself is very frequently misunderstood. Often, this phrase is taken to mean that “the whole is greater than the sum of its parts,” as if  $2+2$  would somehow equal 5. Ironically, this miswording serves to lessen the phrase’s meaning. As Gestalt psychologist Kurt Koffka notes:

*It has been said: The whole is more than the sum of its parts. It is more correct to say that the whole is something else than the sum of its parts because summing is a meaningless procedure, whereas the whole-part relationship is meaningful (Koffka 176).*

In fact, Smuts is not suggesting something quantitatively greater, as is often inferred, but rather something qualitatively different. Thus, in saying that the whole is something *other than* the sum of its parts, we are allowing it to transcend a mere sum and become an autonomous, dynamic whole which generates its own intrinsic meanings. And so it is for the world’s cultures as parts of the dynamic whole which is humanity.

But what criteria are applied here in defining cultures? In encyclopedic terms, “culture” might refer to the system of shared attitudes, values, goals, and practices that characterizes

a group of people. However, referring to culture in such textbook terms effectively sterilizes the idea. Culture is not a thing which can be understood mathematically; there is no known algorithm to calculate the sum of cultural expression using constant values. Yes, cultures are made up of these parts, but when all the shared attitudes, values, goals, and practices of a group of people come together through an ever-changing *gesellschaft* of collective understanding, the whole of these factors is simply something *other than* the sum of its parts.

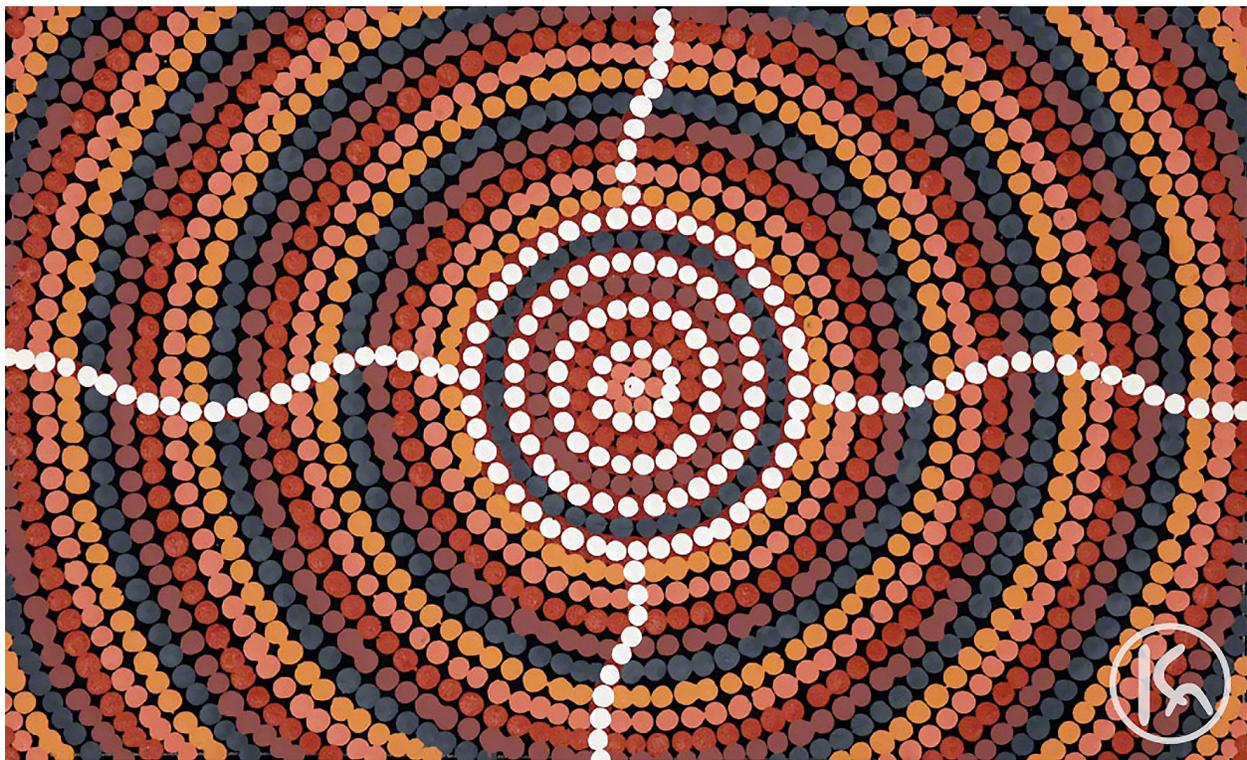


Figure 2.14 - traditional Aboriginal art (Bevan Tjampitjimpa)

Culture has a sensorial existence. It is the experience of sounds, smells, traditions, and feelings. It is emotional and can only be qualified through the experience of direct immersion. Though we might learn about the history and traditions of a place, it is not until we are on the coast of Shirahama, Japan, smelling the ocean breeze and watching shopkeepers pound rice into mochi that we experience the weight of that culture as a synthetic entity which is something other than the sum of its parts.

*Natural wholes are always composed of parts; in fact the whole is not something additional to the parts, but is just the parts in their synthesis... As Holism is a process of creative synthesis, the resulting wholes are not static but dynamic, evolutionary, creative (Smuts 89).*

In extending this concept to the study of culture: Culture is perhaps best defined not as the summative attitudes and practices of a group of people but as something much more dynamic. Though there exists a barrage of interpretations of reality from each individual human, this barrage itself does not constitute culture. Individuals (no matter how many) do not make cultures. It is only when people come together in agreement over their interpretations that cultural values are formed. Thus, *culture is people in synthesis*.

Our planet is a diverse *ombré* of cultural diffusion; though it may not feel like it to the American tourist fumbling through an ancient Japanese temple, these two cultures are inextricably bound, one fading into the other gradually and over immense distance. Though we all find ourselves at various (sometimes opposite) points on this ephemeral spectrum of cultures, it is all these parts working together that creates the synthetic whole that is humanity. And it is with this mindset that we must approach design. The things we design hold different meanings for different people. If we look at cultures through the lenses of relativism and social constructionism, we find that design exists wherever people have problems to solve. The cultural values and meanings placed on designed objects (and design principles themselves) are all social constructs forged by a wide array of geographic, historical, and political contexts.

Social psychologist Ken Gergen tells us that “whatever there is makes no requirements about how we talk about it,” but our relationships provide the fundamental context to our understanding of reality (Gergen). In other words, the world we live in exists on its own terms. Consider something as innocuous as a cup of tea and the enormous cultural weight it brings to bear. For some, tea is a ceremony; for others it is a symbol of colonialism; for others still, it might conjure memories of staying home sick in bed as a child. Though the



Figure 2.15 - a Japanese tea ceremony



Figure 2.16 - a Moroccan man pouring tea

cup of tea remains relatively the same, the meanings we place on it change based on our experiences and whatever communal agreements surround it. The cup of tea is exactly what it is despite how we perceive its existence; however, humans do not perceive the world in such value-neutral terms. Instead, we form social constructs about what a cup of tea is and what it means—with many cultures designing entire artforms around this simple beverage.

The characteristics we use to define value differ—sometimes drastically—from place to place and people to people. Some cultures stand for things others find immoral and vice versa. So, how do we reconcile these differences in cultural perception? How can we exist with multiple realities and conceptions of morality and value (Gergen)?



*Figure 2.17 - the swastika has been used as a symbol of good luck in Eurasian religions since ancient times—with very different connotations than its contemporary Western usage (Reuters)*

Tea holds very different meanings for different people because of the communities that agree upon (or host) these meanings. Does this mean that less-dominant perspectives should be invalidated in favor of a dominant paradigm, or does it show that alternative perspectives can be supplementary in the formation of a greater understanding? Is the Moroccan method of serving tea more correct than the Japanese method, or does the diversity of methods speak to the malleability of the medium and our interpretations of it?

Design works within this same formula, influencing how we perceive reality by embedding values and meanings into the objects that exist in our communities. Just as humans do not perceive the world in value-neutral terms, neither do we design the world in value-neutral terms. Anthropologist and design theorist Arturo Escobar writes that:

*in designing tools, we (humans) design the conditions of our existence and, in turn, the conditions of our designing. We design tools, and these tools design us back (Escobar 110).*

This poses a very delicate problem for designers, whereby design itself runs the risk of becoming an instrument of hegemony which embeds values into other cultural systems. If the objects of design (and the tools with which we design) are influenced by cultural experience, and the installment of these objects within a culture changes the way people experience and perceive reality, then this can possibly create conflicting sets of values within a community.

When designers trained in one cultural methodology design for the people of other cultures, they naturally bring with them a different set of precedents. According to Saki Mafundikwa, founder of the Zimbabwe Institute of Vigital Arts:

*force-feeding Afrikans design principles born in Europe, principles that were the product of the European experience, just doesn't work... Afrikans have their own palettes that have no kinship with the principles of color devised by such schools of thought as the Bauhaus (Jepchumba 2009).*



*Figure 2.18 - "Diversity Hands" (Oswaldo Guayasamin)*

Design is ontological in the way it “inaugurates a set of rituals, ways of doing, and modes of being” (Escobar 110), and, because of this, it is especially important for designers to recognize the possibility for multiple perspectives and to think critically about how their work might displace cultural perceptions through the values embedded in designed objects. It is essential for designers to understand that the design process and its underlying principles should remain malleable enough to adapt to people’s cultural histories and traditions. A central way to do this is to include stakeholders and community members

in the design process in ways that create collaborative, reciprocal relationships. To this end, Escobar suggests a reorientation of design away from the functionalist and rationalist traditions upon which it was formed and toward transition design—the idea that societies must transition toward more sustainable, equitable, and desirable long-term futures based in a sense of rationality which is “attuned to the relational dimension of life” (Escobar x).

This can be thought of as a kind of cultural relativity in design methods, where designers base their work in the lived realities of the people within a culture rather than on formal, structural, or *imagined* understandings of that culture and the way it operates. In the transition design paradigm, everyday life becomes the fundamental context informing design. This is a separate realm of knowledge from the designer’s toolset, calling for collaboration and a reintegration of diverse, transdisciplinary knowledge (Escobar 158).

Boaventura de Sousa Santos echoes this sentiment in *Epistemologies of the South*, saying that “the understanding of the world by far exceeds the Western understanding” and that “emancipatory transformations... may follow grammars and scripts other than those developed by Western-centric critical theory” (Santos i). While Escobar, Santos, and Mafundikwa refer primarily to colonial practices of oppression imposed upon the global South by the global North, the same emancipatory design ideals are also relevant anywhere designers are working with stakeholders from different cultural groups (both at micro and macro scales).

It is important for designers to work from an understanding that stakeholders have supplementary knowledge about the world, but finding ways to bridge this divide (to bind design methods with human experience) can be challenging. Beginning to shift our perception of the relationship between user and designer—not as expert and novice but as reciprocal parts of the synthesized whole that is humanity—is a critical first step.

## CHAPTER 3: DECOLONIZING DESIGN

Design is a chimerical tool that empowers humanity to reshape its existence, but the process and products of that reshaping should not be taken lightly. Design can elevate us through our ability to join together in the resolution of complex problems, or it can destroy us through our rapacity. It is an instrument of great triumph and consequence, limited only by our imaginations, which can have profound effects on communities of all sizes and backgrounds. It is only when the designer understands his or her own motivations, biases, and limitations that the merits of design can be fully realized. Successful design is not only about solving problems but about creating locally sustainable solutions that empower people to become problem solvers themselves.



*Figure 3.1 - an Eritrean girl playing in front of the Christian church in Shousha Camp, 2011 (Mattia Insolera)*

Clive Dilnot, professor of design studies at the Parsons School of Design, states that “at the core of design is an ontological and anthropological act... which is also a meditation

on and a realization of being” (Dilnot 187). This ontology thrives in situations where a reciprocal relationship is formed between the designer and any stakeholders, with all sides contributing complementary knowledge. Unfortunately, the industrialization of design practice has placed some roadblocks in the way of this reciprocity. Commercial practices have forged the perception of design as an object-driven activity driven by financial profit rather than an experiential activity driven by cultural necessity.

The business of design has drawn a clear distinction between those we consider to be *designers* and those we consider to be *users*. This binary opposition separates designers from the broad range of stakeholders affected by design, potentially insulating them from the local knowledge that is so critical to sustainable solutions. The prevalence the term “user” to categorize the recipients of design is considered by many a form of infantilization (Pagán), creating the perception of two discrete categories of people: those who create problems and those who solve them. This is a designer-centric viewpoint which de-values people, reducing them to generic *users* rather than infinitely variable and complex human beings.

The terms “user” and “stakeholder” are not interchangeable. In this document, “user” denotes those who would interact with a design directly in its intended function. While users have traditionally been the sole focus of design research, the term “stakeholder” is useful in expanding this focus to any who are affected by design either directly or indirectly. This includes factory workers, transportation officials, retail specialists, etc. (anyone who has a “stake” that design's success or failure).

### **3.1 DESIGN HEGEMONY**

The Industrial Revolution (roughly between the years 1750 to 1850), saw a transition from traditional handicraft methods of production to machine production, giving rise to the mechanized factory system. This marked a major turning point in human history, not only because new technologies had become more accessible but also because this

industrialization sparked the emergence of the modern capitalist economy.

Industrialization allowed products to be made quickly and cheaply, providing new opportunities for the poor to participate as consumers in the capitalist system. As the production process moved away from the handicrafts of skilled artisans and was replaced by the work of machinery and unskilled labor, class divisions became increasingly apparent. In this newly mechanized system, designers became the creators of capital, and laborers were removed from having a stake in the creative process. Thus, a new hierarchy emerged, fueled by the binary opposition of designers and consumers (or *users*).



*Figure 3.2 - Volkswagen assembly line*

Urban studies theorist Richard Florida writes about the emergence of a “creative economy” in post-industrial societies, which has had a potentially profound effect on the sorting of people into new social classes. Florida points to the “creative class” as an ascendant social class made up of knowledge workers, intellectuals, and various types of

artists who are the driving force of this new economy. As he suggests, the creative class are those who add economic value through their creativity, engaging in creative problem-solving at a level that typically requires a high degree of formal education (Florida).



Figure 3.3 - Sotheby's auction house

Culture driven by an elite, creative class excludes most members of society from participation in cultural innovation. In an essay entitled *A Case for Distributive Justice in Design*, Earl Tai addresses the prevailing idea that art and design are luxuries, not necessities, saying that “visual and spatial sensibilities and literacies have become requirements for full and equal participation in contemporary society” (Tai 456). Tai draws attention to the example of public education, showing that when funding runs out art education is often the first to be cut. Because of this, disadvantaged classes are not offered the same access to art and design education, and cultures are driven by those who are affluent enough to have access.

When we look at the progression of Western design styles, for example, especially

since the dawn of the Industrial Revolution, we can see the pendulum swing rather dramatically as cultural reactions to political events shifted the dominant style paradigms. In Europe and the American colonies, the gaudy, extravagant style of the rococo period became suddenly tawdry with the rise of revolutionary ideology. As the French and British monarchies flaunted their wealth before the people, the popular mentality shifted away from this extravagance and toward more democratic ideals of *liberté, égalité, fraternité* and the neoclassical styles inspired by Greek and Roman history. The progression of these anti-establishmentarian styles, of course, culminated in political revolutions in both America and, soon after, France—where new cultural ideals were established and even new systems of communication (e.g., the metric system) came into prominence. Clearly, this shows the power of design to both encapsulate cultural values and to enable further cultural evolution. It is no wonder so many regimes have sought to control this influence by limiting access.

This seems to go on *ad infinitum* (from William Morris' Arts & Crafts movement to the sardonic styles of postmodernism), with each style—each cultural ideal—arising as a reaction to its predecessor. These movements are not merely a product of the zeitgeist of each generation, they are also catalysts whose expiration triggers new movements. This is an iterative process. As each style—each cultural *zeitgeist*—manifests, it becomes an abstraction of that culture, allowing those in power to validate or invalidate popular ideals and to make subsequent changes as they see fit. It is the creative class who pulls these strings, and, as history shows us, when one group is given that much power over others, problems naturally arise.

Moral philosophy frequently concerns itself with the ethical dilemmas inherent in this imbalance of wealth and power. According to John Locke, “natural resources are given commonly to all humans... personal labor is a criterion for ownership... [and] there is an ethical limit to how much property an individual can rightly amass” (Tai 454). This idea can be found across many cultures. For example, in George M. Foster's ethnography of rural

Mexican peasants in Michoacan, he observed strong levels of internal equality due to a perception of what he called “the limited good”—the idea that there is only so much good to go around, and if someone has more than someone else, he or she must have somehow stolen it (Foster).

It is a generally accepted belief in most cultures that inequality is unfair, and yet capitalist societies are built upon inequality. The justification for this system is the “trickle-down” method—that by elevating *some* to positions of privilege, we are then able to design benefits for *all*. As John Rawls states, “no one should be given special preference or advantages... [but] inequalities of wealth and authority are just only if they result in compensating benefits for everyone” (Rawls 14-16). The unfortunate reality of this is that the benefits reaped from inequality usually perpetuate inequality.

### **3.2 THE FETISHISM OF DESIGN**

Imagine the famed (and fictional) archaeologist Indiana Jones deep in a forgotten Amazonian temple. After a death-defying foray through an ancient obstacle course, he comes upon an altar bearing an inexplicably illuminated golden idol. He studies the idol—it is certainly a trap. In his hands, he measures out a bag of sand until it reaches the approximate



Figure 3.4 - "Raiders of the Lost Ark" (Paramount 1981)

weight of the glowing statuette. With sweat beading on his brow, he makes the switch.

Let's think about the undercurrents of what is happening here. What, exactly, is the difference between the golden idol Indy covets and the bag of sand he's willing to trade for it? To repeat Ken Gergen, "whatever there is makes no requirements about how we talk about it," but our relationships provide the fundamental context to our understanding of reality. Though neither a bag of sand nor a golden idol holds much intrinsic use-value, one of these objects is nearly priceless—well worth the risk of being poisoned, impaled, or crushed by a comically huge boulder.

In *The Fetishism of Commodities*, Karl Marx argues that some objects have supernatural powers over us and that social inequalities are generated by our "fetishism" of these objects. If we look at a more contemporary example, like the smartphone, we can easily see how we imbue this object with an immense value and power beyond its basic use-value. What is the real value of a smartphone? Is it the market price of the glass and silicone it contains? Is it the tasks it can do—like checking emails and playing games? Or is it the status one acquires after obtaining such a thing?

In capitalist societies, much of the status quo is dictated (or at least monitored) by patterns of consumerism. We have all heard the phrase "keeping up with the Joneses." This is a big part of how we maintain the status quo—we see advertisements selling us things that we didn't even know we needed, or we see someone else buy something, and then we want it too. This practice is what sociologist Thorstein Veblen called "upward mobility through conspicuous



Figure 3.5 - the iPhone

consumption.” The basic theory is that we don’t always buy things because we need them; very often, we buy things just for appearances, so that we *appear* to be wealthier or *more cultured*—members of a higher social class (Veblen). We fetishize these objects not because we require them to survive but because we require them to maintain the status quo.

This is what Marx means by “commodity fetishism,” when a product (be it an Incan idol or an iPhone) has an almost mysterious ability to generate cultural value and social capital beyond its use-value. But Marx tells us that every product of this nature has two sides: One side is the image that is sold to us through marketing campaigns—*that if you just buy this iPhone you will be able to travel to exotic locations and take selfies with all the other cool people*—while the other side is a much harsher reality concerning the labor that goes into production.



Figure 3.6 - an iPhone factory, China

Marx argues that a big part of the exchange value of a product is determined by the labor that went into its creation. To paraphrase his argument: When you purchase a product, you trade the capital generated by your labor for the capital generated by the demand for a product. This is what is known as capitalism. We have become so indoctrinated into this

system by the constant stream of advertising (what Guy Debord called “the spectacle”) that we often forget about the hidden side of the products we fetishize: the labor that went into their production and the valuation of that labor.

Design theorist Victor Papanek would argue that the commercialization of design practice has often skewed the motivations of the designer away from a reciprocal relationship with stakeholders toward one where the designer’s ultimate goal is to satisfy his or her own needs (Papanek, *Design for the Real World* 21, 40). We must understand that even the best intentions can be derailed by biases both visible and invisible. Design can be destructive if not carefully driven and, thus, there is an increasing need to design from this basic, ethical foundation. The true aim of design is not to advance the career of the designer (or the client) but to design with an informed empathy toward human beings and their needs. Thus, *social design* is the altruistic realization that the benefit of the stakeholder and the benefit of the designer are one in the same.

### **3.3 THE MISSIONARY OPPOSITION**

It often occurs that the binary opposition between designers and users is coupled with intense trans-cultural histories of colonization. If these histories are ignored by designers, many humanitarian design projects can appear eerily like the attempts of European colonizers, leading to a myriad of unintended consequences.

As a contemporary and international example, this can be seen very dramatically in recent attempts to address the refugee crisis. Over the last decade, as people have been displaced by war and famine, many design companies have apparently perceived this crisis as an opportunity to exhibit their skill in designing innovative *objects*, rather than designing innovative *experiences*. At the 2017 *Dutch Design Week*, a panel of designers and humanitarian experts took a critical look at this trend:

*Designers should stop proposing gimmicky solutions to the refugee crisis such as shelters, apps and emergency clothing... ‘micro solutions’ such as*

*backpacks fabricated from life jackets were unhelpful. Instead, designers should focus on removing the physical and non-physical barriers that prevent refugees from travelling and integrating (Fairs).*



*Figure 3.7 - Somalian refugees (Evelyn Hockstein)*



*Figure 3.8 - Refugee Fashion (Angela Luna)*

Many “design for good” projects falter because they fail to address the deeper concerns facing stakeholders, instead opting to focus on a range of micro solutions which treat the symptoms of a problem as they relate to the designer. This is the result of an object-driven mindset that has taken hold in the wake of capitalism and industrialization. Ultimately,

it is antithetical to the purpose of design. To create micro solutions for personal gain is to create exploitative design which is, at best, counterproductive and, at worst, damaging to the fabric of culture. To once again quote Victor Papanek: “There are professions more harmful than industrial design, but only a very few of them” (Design for the Real World, ix).

In post-industrial, capitalist economies, the locus of design has shifted away from human-centered cultural necessity and toward object-driven product creation for financial capital. This has created a situation where people’s survival is no longer based on their ability to design, but on their ability to consume. Unfortunately, as designer Ellen Lupton notes, “In a consumer economy, objects are manufactured primarily to be sold, and only secondarily to satisfy a human need” (Lupton 88). So, where does this leave people—when they don’t have the *means* to design for themselves and the designs which they can purchase are often exploitative and frequently unnecessary?

Design anthropologist Dori Tunstall questions how Western design firms prioritize Western approaches to design thinking above the local ways of thinking and knowing of third-world peoples, positioning themselves as hierarchically more capable of solving the problems of other cultures. She states that design thinking, as a methodology, positions itself as “a progressive narrative of global salvation that ignores the alternative ways of thinking and knowing of third world peoples” (Tunstall 235).

*I found that Western design companies are represented as active agents who guide, serve, embed, build, pay, and staff (the design processes). On the other hand, Indian and African institutions are represented as those to be passively guided and directed or to serve as sabbatical hosts, sites for capacity building, philanthropic tourist destinations, and support staff for projects (Tunstall 236).*

Tunstall points out that even IDEO, a celebrated design thinking firm that has released several how-to guides for working across cultural lines, has ignored non-Western ways of

thinking rooted in traditional practices, showing a disregard for local knowledge and the intent to supplant it with Western thinking as the dominant methodology.

*By framing non-Western design companies outside of the discourse of Design for Social Impact, the IDEO document positions Western design companies in a unique hierarchical position enabling them to guide non-Western institutions on how to solve problems (Tunstall 236).*

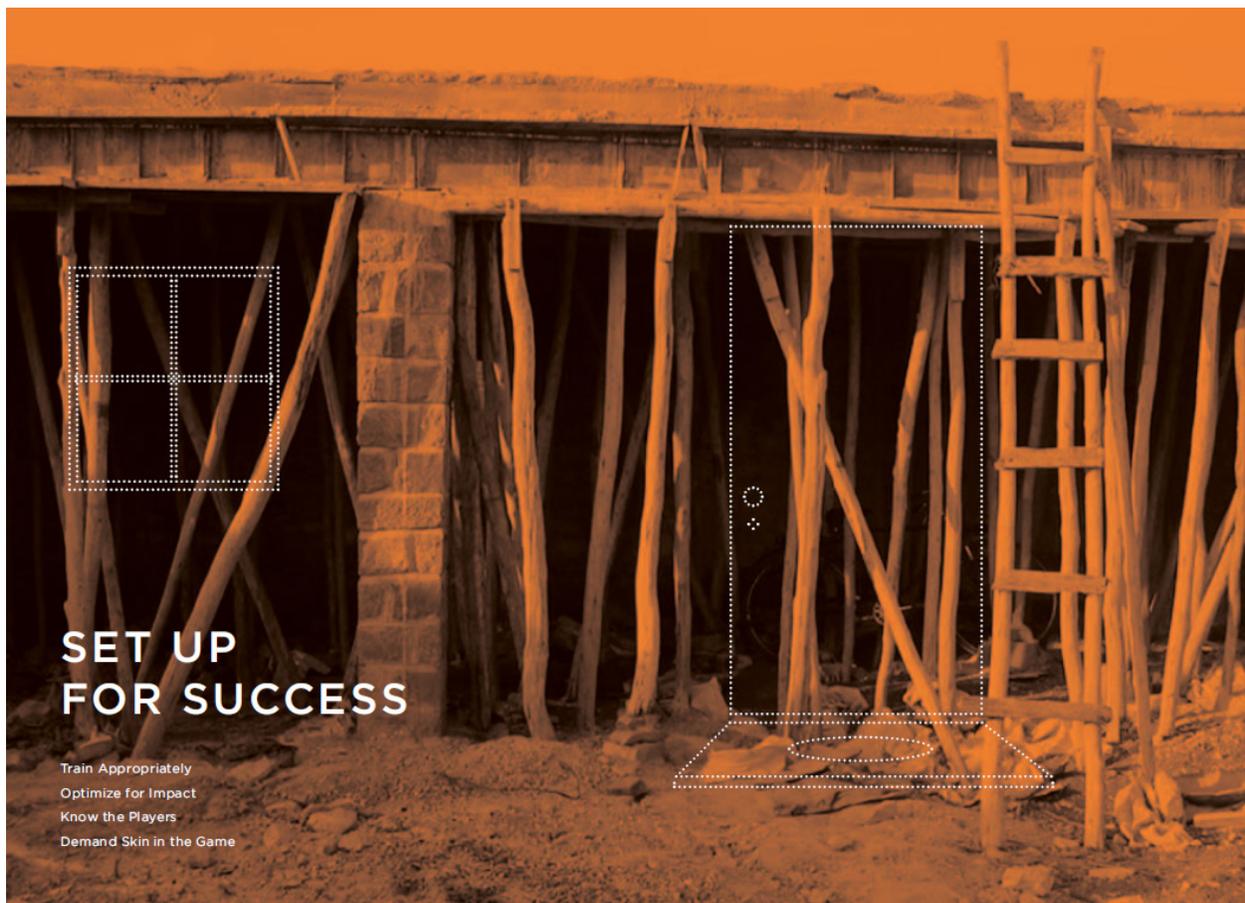


Figure 3.9 - "Design for Social Impact" (IDEO)

While these examples are not necessarily being *intentionally* imperialistic, the perception that these practices might be attempts at colonization is a real side-effect of the hierarchical division between designers and stakeholders. Combining this class separation with colonial histories creates the perception that humanitarian design is "another form of cultural imperialism that destabilizes and undermines indigenous approaches coming out

of other creative traditions” (Tunstall 237).

As an example, the nonprofit initiative One Laptop Per Child (OLPC), was created with the plan of distributing millions of inexpensive computers into remote villages in Africa, China, and India so that children in these developing regions could have access to the Internet and other educational resources. This initiative was met with intense criticism in India where their efforts were perceived as a form of technological colonialism. OLPC had unwittingly attempted to circumvent the Indian education system, cutting out all the policymakers, curriculum builders, teachers, and parents; forgetting the long history of Western colonialism in that country and ignoring local efforts to address the situation (Nussbaum). The inferred ideology driving this project was that a Western organization should be justified in its attempts to educate foreign children directly about the importance of Western knowledge.



Figure 3.10 - One Laptop Per Child (OLPC)

While there are sincere attempts by designers, volunteers, and philanthropists to *do good* for the people of developing regions, it is crucial that designers raise questions about the motivations behind these projects. Will a given design acknowledge colonial histories by giving voice to subjugated peoples, or will it perpetuate these histories by ignoring them? Will it increase or decrease the gap between the creative class and the consumer class? Will it liberate people from their problems, or does it pull them into a capitalistic system from which there is no escape?

These examples of modern colonialism are not meant to limit the damages wrought by design capitalism to a “West vs the rest” dynamic; the intent is to show that the reaches of capitalism do not stop at the borders of first world countries. Capitalism is a vortex that pulls in all who pass near. Once inside this vortex, one finds oneself ranked within a hierarchical system of classes. At the center is the singularity of the ruling class, absorbing the capital generated by everything it pulls in. To continue to grow, capitalism must continue to spread, for it draws its strength not from the capacity for production but from the voracity of consumption. In our modern world, nothing and no one is outside of capitalism, but there is an inherent danger to subjecting design to these same logics—especially when projects claim to have humanitarian aims.

The driving force of consumption is Guy Debord’s *spectacle*—the promise of “upward mobility” generated by advertising. *If you only buy this Mercedes or this Rolex, you too can advance to the next social class!* This is a great lie because the exact opposite is true—the only way to advance to the next social class is through *production*, not consumption; and the only way to increase production is to convince others to consume what you produce. This is the binary opposition which fuels capitalism, and the creative class is directing the flow. If religion is the opiate of the masses, then design, it would seem, is the needle.

As the world becomes more interconnected, designers can balance these scales by collaborating with stakeholders in the creation of cultural innovation. By working with stakeholders in a way that gives them some authority over the means of production, we

reduce the gap between the creative class and the labor class, providing opportunities for stakeholders to take control over their own experiences. As part of this, the motivations of designers must shift away from object-oriented hegemonies and toward more anthropological and ontological motivations.

### **3.4 WHAT WE CAN LEARN FROM ANTHROPOLOGY**

To mitigate the damages caused by the industry of design, we can learn from the transformational history of anthropology, a discipline which has been on the front lines of culture and class politics for nearly two centuries. We can draw several parallels to the class-based hegemony of design and the culture-based hegemony of anthropology, observing what steps designers might take to decolonize their practices. Anthropology, we must be careful to remember, emerged as a discipline during the height of British colonialism in the 19th century, and its methods of extracting knowledge from indigenous peoples have frequently been regarded as tools of the British Colonial Office (by studying colonized people, British colonizers were better able to rule over them) (Uddin 981). But, through a reflexive process of intense internal criticism, anthropologists have made tremendous efforts to decolonize their practices and address the ethical nature of their relationships with interlocutors.

Just as the prevailing mindset of anthropologists shifted from Bastian and Morgan's unilinear cultural evolution toward Boas' and Malinowski's multilinear historical particularism, so too did these methods come under scrutiny. Malinowski's methods of participant observation brought about real changes in the way anthropologists conducted ethnographic studies, showing the benefits of living among the subjects of study to generate empathy for (and empirical understandings of) seemingly peculiar activities.

However, the publication of Malinowski's personal field diary in 1967 shed light on the position of privilege and power anthropologists hold in this relationship. This was the catalyst of a period of growing criticism against the exploitative, colonial underpinnings of

anthropology. The diary showed the ethnocentrism of previously established ethnographic methods, and by the 1970s critics like James Clifford, Paul Rabinow, Ruth Behar, and Talal Asad had begun to dispute the colonial power relations between the ethnographer and “the other,” sometimes proclaiming anthropology as the “child of Western imperialism” (Uddin 980).



*Figure 3.11 - Malinowski with the Trobriand Islanders*

In the time since this ‘reflexive turn,’ anthropologists have striven to reinvent their practices and to establish the relevance of anthropology in our contemporary world. There are currently several new and growing areas of interest that reflect the expansion of ethnographic studies, such as multi-sited fieldwork, medical anthropology, science and technology studies, environmental anthropology, and digital ethnography. These tools are coming together to reinvent the usefulness of ethnography in the study of contemporary issues like AIDS, tourism, technology, or cultural imperialism.

The point here is that the crises and criticisms leveled against anthropology at these various stages are what has allowed the discipline to recognize its own biases and to

adapt its methods in ways that mitigate its hegemonic history. It should be noted that the discipline of design went through a similarly critical phase during the same period through the writings of critics like [John Christopher Jones](#) and [Victor Papanek](#). Unfortunately—perhaps due to the capitalist drivers of design industry—these criticisms failed to have the same impact on design practice.

When anthropologists enter a culture laden with preconceptions based on their own cultural experiences, it skews their perceptions of that culture. The same idea holds true for designers, and so we must make attempts to re-frame our cultural perceptions. Designer Jane Fulton Suri, in *Poetic Observation*, writes about the need to remove biases from design through her experience of designing a new type of handbag for the Brazilian brand *Havaianas*:

*The design team wanted first to understand the brand's tight connection to Brazil. Obviously, a good way to explore this was to go and spend time in Brazil. Less obvious was what Miguel Cabra, the exuberant and reflective Barcelona-educated design leader on the project, told me about the team's process: "We had to go to India to understand Brazil... Europe and Brazil are different in so many ways, from culture to social structure to weather; so much so that it was hard to learn deeply about Brazil because we didn't have anything to compare it to, and that's how the idea of India came. We thought it might be useful to visit another (but different) third world country just so we could figure out what really belonged to the identity of Brazil... you can't just research around the people and the product, you need to really immerse yourself. You have to be there because, before you go, you don't know what you need to know or even what you can know" (Suri 23).*

The strength of preconceptions is not to be underestimated, and the lengths to which one must go to break these preconceptions can sometimes be extreme, but one

cannot address the people of Brazil or Hong Kong or even Omaha based on superficial or imagined notions about those people and their needs. Instead, designers must interact with those people, empathize with them directly, and attempt to address their needs by including them in the process of designing at every stage possible. “What’s important,” says Suri, “is to make sure we leave room in project plans, daily schedules, and in designers’ heads for this kind of intuitive curiosity to play its magic” (Suri 23).



*Figure 3.12 - Havaianas*

By including and empowering *stakeholders* rather than marginalizing *users*, we can use design to enhance and learn from local experience. The inclusion of stakeholders in the design process through collaborative, participatory methods may help designers to re-frame their practices using a more human-centered definition—not as an industry driven by profit but as a process of innovation driven by knowledge and experience. It is through this that designers might expand their resources while allowing the experience of design to grow organically within communities, creating lasting impact where it is needed most.

## **CHAPTER 4: PARTICIPATORY DESIGN THINKING**

The products of design have the capacity to alter the ways people interact with and interpret reality, and when design is divorced from cultural context, it becomes increasingly likely that hegemonic tendencies will introduce alternate realities that reinforce a more hierarchical class structure. As cultural systems are absorbed into this hierarchy, the world becomes perhaps more homogeneous but, in the end, less whole.

The history of design discourse often lacks a broader perspective of the political context of its ideologies and any cultural products not produced by members of the “creative class.” The implications of this are nothing short of profound, and design cannot ethically operate within this margin of error. Instead, we must make attempts to reconnect design to its appropriate cultural anchors. We do this not by simulating or speculating about cultural experience, but by embedding that experience into the design process.

To allow ourselves to be open to other cultures and other ways of knowing is to understand our collective humanity as a synthetic whole which transcends any or all of its individual parts. By designing in a way that respects, preserves, and strengthens these parts, we work to strengthen the whole. By including rather than marginalizing the accumulated knowledge of other cultures, we work together to better ourselves and the world for all people.

### **4.1 SOCIAL MOTIVATION**

It is critical that designers, much like anthropologists, be increasingly mindful of the moral implications of intentional intervention in people’s lives. Keith Murphy states:

*design represents perhaps the most common channel through which humans intervene, directly and indirectly, in the lives of other humans... when design is considered comprehensively as form, action, and effect all at once, questions regarding the morality of social engagement tend to emerge (Murphy 435, 440).*



Figure 4.1 - homeless man in Boston, MA - part of the "Signs for the Homeless" project

Just as the design process must adapt to fit the culture of stakeholders, so it must also adapt to fit the biases and motivations of designers. To understand why some design ventures succeed and some fail, we must look at the innate motivations of designers themselves.

In the book *Social Motivation*, several psychologists and sociologists investigate this very question: What motivates people to want to help others—be it through design, philanthropy, or volunteerism? They separate this motivation into two basic categories: *egoism* and *altruism*. Egoistic motivations are those driven by one's concern for oneself (the true motivation for their desire to help others stems from guilt or perhaps the expectation of a reward). Conversely, altruistic motivations are driven by an earnest desire to help (to alleviate someone's suffering with no expectation of personal gain).

*The empathy–altruism hypothesis claims that empathic concern produces motivation with an ultimate goal of relieving the valued other's need—that is,*

*altruistic motivation... Considerable evidence supports the idea that feeling empathic concern for a person in need leads to increased helping of that person (Batson 111).*

This distinction is important from a design perspective because the initial motivations of the designer will determine the depth to which their process must include stakeholders: If the designer's motivations are altruistic, he or she is more likely to want to empathize with people and to create a solution that works for them; if the designer's motivations are egoistic, he or she is less likely to want to empathize and more likely to create a solution that satisfies his or her own needs. The important thing to recognize here is that this moral quandary is not black and white—most people (including designers) fall somewhere on this spectrum of egoism versus altruism—but questioning one's motivations is an important step.

Herbert Simon defines design as “courses of action aimed at changing existing situations into preferred ones” (Simon 111), and this is something designers should try to keep in mind when approaching any new design problem. The purpose is not to exploit people's needs for personal profit, but to improve existing *situations* for those who must live them daily. Designers are instigators of change, and the decisions they make can impact people's lives in unexpected ways. The ideology behind social design is that designers have a social responsibility to create positive change in society by prioritizing people in their decisions.

*“Concern for the environment and for the disadvantaged of our society are the most profound and powerful forces with which to shape design” (Papanek, The Green Imperative 57).*

There is an ethical obligation underlying the act of designing that “recognises an accountability of design to the worlds it creates and the lives of those who inhabit them” (Simonsen 5). By embracing altruism, designers can focus on higher values of truth and

humanity, rather than that of the self, inoculating ideas against the persuasion of ego. The purpose is to improve life, not just for designers or users but for the planet as a whole. Ideally, design should not have to forego any of these stakeholders. But, if it does, the consequences are ultimately the designer’s burden to carry.

The purpose of art and design is to elucidate whole truths of life and emotion and the human experience. What matters are “the human implications of the situation: its capacity to hold promise for how we can better—which today means more sustainably—live our lives” (Dilnot 184). By incorporating collaborative methods, designers can attempt to shift the focus to broader social contexts and to emphasize the cultural aspects of design. What that usually means is not just making assumptions about what people want or need but interacting with them on a personal level that allows them to *show* you what they need.



Figure 4.2 - community involvement in the Incremental Housing Strategy, Bombay, India

## 4.2 PARTICIPATORY DESIGN

One method of achieving this reciprocal relationship is through a process of participatory design (also known as collaborative design or “co-design”) which attempts to bring stakeholders into the design process. Jesper Simonsen and Toni Robertson, in the *Routledge International Handbook of Participatory Design*, define this as:

*a process of investigating, understanding, reflecting upon, establishing, developing, and supporting mutual learning between multiple participants in collective ‘reflection-in-action’. The participants typically undertake the two principal roles of users and designers where the designers strive to learn the realities of the users’ situation while the users strive to articulate their desired aims and learn appropriate technological means to obtain them. (Simonsen 2)*

Participatory design was originally borne out of Scandinavian trade unions in the 1970s. As information systems and computer technology were introduced into the workplace, designers found that without actively involving the workers who would be using these new systems they “were unable to create visions of future working conditions and practices that would improve or even match their current ones” (Simonsen 3). Participatory design was, in this first instance, about designing information technologies in a way that included workers as experts in their domain, allowing them to develop new technologies that would improve working conditions.

“Participatory design has always given primacy to human action and people’s rights to participate in the shaping of the worlds in which they act” (Simonsen 4). This process is not limited to simply having stakeholders fill out questionnaires, but rather it is asking stakeholders to:

*step up, take the pen in hand, stand in front of the large whiteboard together with fellow colleagues and designers, and participate in drawing and sketching how the work process unfolds as seen from their perspectives (Simonsen 5).*

This is a process of creating reciprocal working relationships that empower stakeholders, designing in such a way that enables people to have a stake in their own solutions. Rather than designing for passive users, it is a process of elevating all stakeholders to active participants in the design process. Historically, participatory design has mostly been relegated to the realm of UX design, where these methods are employed in the design and testing of information systems and software. However, this methodology holds great potential to be the cornerstone of a pragmatic shift across design fields that equalizes the relationship between designers and stakeholders.

Designer Henry Sanoff speaks about the need for action research in design, where designers simultaneously seek transformational change while conducting research with the goal of addressing important organizational, community, and social issues together with those who experience them. This is an inclusive and democratically participatory process through which to derive positive social change. Sanoff's seminal book, *Design Games*, promotes the clarification of stakeholder values through the use of games (often simple board or card games) that allow everyone to participate. This participation gives stakeholders a sense of ownership and power that is important to the long-term sustainability of design solutions.

In a 2021 lecture at North Carolina State University, Sanoff spoke about a design project he conducted in the small town of Bangalow, Australia, where he headed the revitalization of the town's main street. Through collaborative charettes with residents, both the design team and the residents were able to identify what aspects of the revitalization were of greatest concern. Once these issues were identified, the townspeople were able to take over and beautify the town themselves after designers had left. "Designers can identify goals," said Sanoff, "but it's important for local people to identify them, because they will have to implement solutions."

These sorts of community participation methods work to empower stakeholders by bringing them in as meaningful collaborators. The exercises designers conduct in problem

definition and ideation are often just as beneficial to stakeholders as they are to designers, allowing stakeholders to consider issues more deeply, to reach a community consensus, and to put their real-world experience toward sustainable solutions. In the town of Bangalow, what was once a run-down main street has become a revitalized community and economic center that continues to thrive today.



*Figure 4.3 - Bangalow, New South Wales, Australia*

Participatory design does not operate within the industrial paradigm of designers telling users how they are going to solve their problems but in a more dynamic paradigm whereby designers guide stakeholders through critical thinking exercises that elucidate locally sustainable solutions. Through this, we can break free of the mindset that design is a commercial activity and, instead, focus on creating experiential solutions that work on a cultural level. Through participatory design, designers become not the direct agents of change but, rather, the conduits through which people can improve their own lives.

### 4.3 CONVIVIALITY

As an alternative to the rugged individualism of capitalist, neoliberal consumerism, several prominent design theorists have begun to push toward more socialist, community-based paradigms. Central to this movement is the belief that designers can draw from local resources and manpower, creating solutions that are locally sustainable rather than those which rely upon outside resources and interventions. This type of design, based in the idea of *conviviality*, necessitates stakeholder involvement in the execution of design solutions.

Social critic Ivan Illich was a central proponent of conviviality in design, arguing for the decentralization of tools and technologies as an antidote to the kind of industrialization and mass production that was brought on by the commercialization of design practice (Allen 118). In his book, *Tools for Conviviality*, he argued that many of the tools people use only infrequently (such as snowplows, leaf blowers, lawn mowers, etc.) need not be individually owned but can be shared amongst community members. This, of course, is in direct contrast to the capitalist paradigm, which has conditioned consumers to believe it is not only their right but their duty as upstanding members of society to own these items individually. According to Illich, conviviality describes “a society in which modern technologies serve politically interrelated individuals, rather than managers” (Illich 12). When we begin to consider the usefulness of conviviality within communities, then we can begin to break the cycle of consumption as the end-all-be-all and instead work to find experiential solutions.

The sheer logistical weight of consumerism can be quite staggering, and we may find that the ripple effect of conviviality can have resounding benefits globally. Design critic John Thackara writes that:

*244 million containers are moving around, or standing in yards, or waiting to be delivered, at any one time. If all these containers were placed end to end, the line would stretch to the moon and back eight times. Their contents*

*account for about 90 percent of the world's traded cargo by value. In other words, 85 percent of all the goods and materials in the world are not in factories or shops, but moving, or waiting to move—on the road, in the air, or on the sea (Thackara 55).*

A push toward innovative and locally sustainable design grounded in conviviality would reduce this logistical load considerably. The case for conviviality is that if communities can take more responsibility for their well-being, then they might rely less on services delivered by third parties. Designers can play a very beneficial role in this, if only through activities geared toward problem definition and ideation that can help communities come together to reach consensus.

In his book, *In the Bubble*, Thackara coins an interesting word: “choronomy” (Thackara 73). While this word seems not to exist in any dictionary (and Thackara mentions it only in passing), we can find a persuasive definition in its etymology. “Chor-” is a Latin root meaning “place” or “land,” hence *choronomy* pertains to a system governed by land or the context of place. This fits well with the idea of conviviality in design—design which is governed by the context of place. As part of the push against global consumerism, the focus of many businesses and social innovations is shifting away from locomotion (those millions of containers moving through shipping yards) and toward locality (designing within the constraints of social and geographic context).

Ezio Manzini (founder of DESIS, an international network on Design for Social Innovation and Sustainability) has long been a proponent of redirecting design's focus toward the utilization of local resources, or what he calls cosmopolitan localism. Manzini defines this as “a balanced interaction between the local and the global dimension, on the one hand, and a sustainable enhancement of local resources, on the other hand” (Manzini 448). Cosmopolitan localism centers on enhancing the ability of resident communities to recognize potential resources and transform them into actual resources. The adoption of this framework, he argues, leads to the emergence of local handicraft products that are

linked to the identity of the place of origin, as well as the cultural and social values that characterize handicrafts.



*Figure 4.4 - MakeTools (Liz Sanders)*

Along this same thread, we find designers like Liz Sanders, founder of MakeTools. This innovative design company explores the tools, techniques and methods being used in design today from a human-centered perspective, acting as a mediator between designers and stakeholders in the realm of pre-design research. MakeTools offers design consulting services and education to non-designers, focusing on bringing participatory, human-centered design thinking and co-creation practices to the social challenges we face.

Sanders, along with co-author P.J. Stappers, has published the Convivial Toolbox, which pushes against the mindset that researchers are experts and calls for more involvement from stakeholders as equals in the process of co-creating design. They refer to this as “generative research,” arguing that these generative tools help create a shared design language whereby designers and stakeholders can better identify problems and

ideate solutions. “These tools are ways to construct narratives and stories about the problems that design is trying to address, as well as the stories of how they might be used to improve user and stakeholder situations” (Allen 175).

This shift away from product creation and consumerism and toward local, community-led, experiential solutions is a brave new world for both design research and practice. It opens the door to a myriad of possibilities rooted in reflexivity and social engagement, breaking from the rigid guidelines of design schools like the Bauhaus and embracing cultural relativity and local variability in the design process. As Ezio Manzini notes: “Designers should update the concept and meaning of being a designer today, accepting the fact of having to deal with different other players who, despite not being ‘professionals of design’ are, nonetheless, designers in their own right” (Manzini 451). A shift toward participatory design and conviviality allows design to evolve *choronomically*, based on the context of design locality.

## **4.4 DESIGN THINKING**

The most prominent design methodology in use today, design thinking, has been mistakenly characterized as a one-size-fits-all workflow that can be used in any situation. In a way, this might be true—which is precisely what makes it so problematic. Design thinking is itself an iterative process that revolves around designers empathizing with stakeholders and then brainstorming and prototyping possible solutions. It is a highly valuable workflow for encouraging designers to collaborate with each other, but—in practice—it lives mostly on Post-It notes in the studio, where designers gather around a whiteboard to speculate about the needs of their stakeholders. What is missing from this equation is the opportunity for stakeholders to create their own solutions. Design thinking is a top-down approach that counterintuitively insulates designers from people’s everyday lives (Jen).

Graphic designer Natasha Jen, in her infamous talk, *Design Thinking is Bullsh\*t*, speaks about the importance of criticism in design and the “complete lack of criticism” in



*Figure 4.5 - design thinking in action*

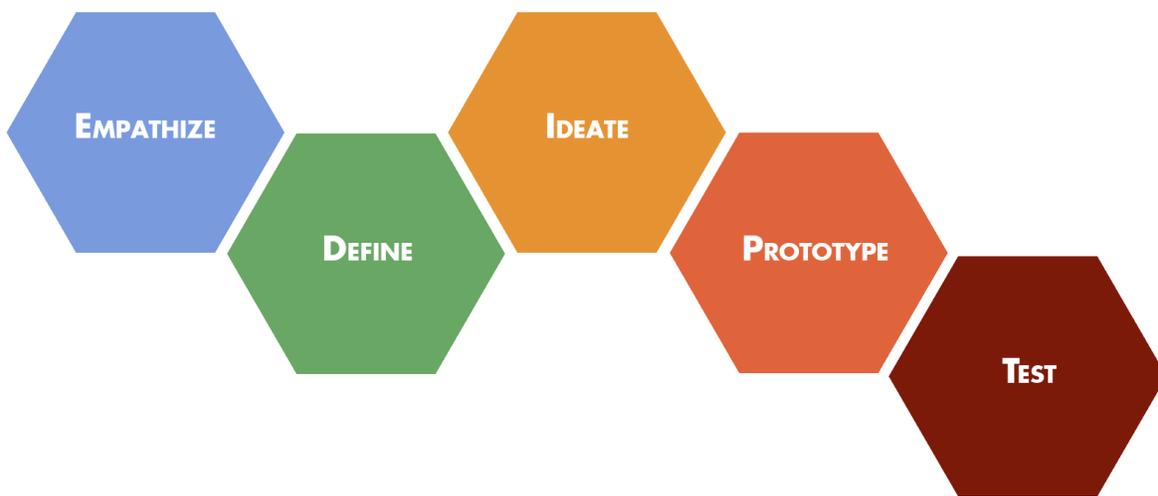
the design thinking process. She regrets that design practice has been reduced to a defined sequence of steps and suggests that “real designers surround themselves with evidence.” She goes on to challenge designers to share the evidence they produce so that it might be critiqued in a way that progresses the methodology and the discipline as a whole (Jen).

If we examine a typical chart of the design thinking process (like the one pictured below from the Stanford D. School), we may find that there are several fundamental steps that seem to be completely missing: steps which enforce the need to “connect,” “collaborate,” and “empower.”

By omitting the needs to collaborate with and empower stakeholders beyond the initial stage of empathy and end stage of testing, design thinking limits its scope and devalues local methods. What this dynamic tends to generate is design solutions which fit the designer’s process rather than the stakeholder’s needs.

*Traditional design thinking focuses on form and structure. Problems are*

*“decomposed” into smaller steps, and these are prioritized in lists. Actions and inputs are described in a blueprint or plan—and other people produce or implement it. This is a top-down, outside-in approach. It doesn’t work well now because complex systems, especially human-centered ones, won’t sit still while we redesign them. A sense-and-respond kind of design seems to work better: Desired outcomes are described, but not the detailed means of getting to those outcomes (Thackara 213).*



*Figure 4.6 - the typical design thinking model (Stanford)*



*Figure 4.7 - an updated, collaborative model (Russell Pinkston)*

Design is “of a moment” and “will always be context-specific—responding to the needs and wants of a population, situation, or geography that is current and contemporary” (Allen 2). Because the cultures for which we design are constantly evolving, the design process must evolve as well.

Theorist Richard Buchanan claims that design problems are not only “wicked,” but they are also “indeterminate” because design itself is potentially universal in scope (Buchanan 16). In this way, design solutions are not singular, vague preconceptions waiting to be clarified, they are an unlimited number of possibilities waiting to be discovered. Because of the indeterminate nature of wicked problems, designers should not go in with preconceived notions about what the best path to a solution will be as the problem itself may be subject to change.

Buchanan also notes that “what many people call ‘impossible’ may actually only be a limitation of imagination that can be overcome by better design thinking” (Buchanan 19). We must consider not only the possibility that our preconceived notions may lead to irrelevant design, but that limiting ourselves to preconceived processes might be what prevents us from achieving the impossible.

## **4.5 THE HYBRID MODEL**

One of the most problematic flaws in many designers’ approaches to design thinking is the misrepresentation of “empathy.” We hear a lot these days about the need to *empathize* with stakeholders, but empathy is a kind of ambiguous term, which encourages a superficial interpretation. This superficiality can lead to the belief that *speculations* about stakeholder needs can garner sufficient insight into people’s lives (as if wearing a blindfold for a day will encapsulate the experience of being blind). Despite its efforts to generate empathy, design thinking is still a “designer-centric way of thinking.” There is no substitute for actual experience, and design thinking has become a top-down approach based on *simulating* this experience. When not supplemented by deeper qualitative research, these simulators



Figure 4.8 - "The Empathy Toy" (Twenty One Toys)

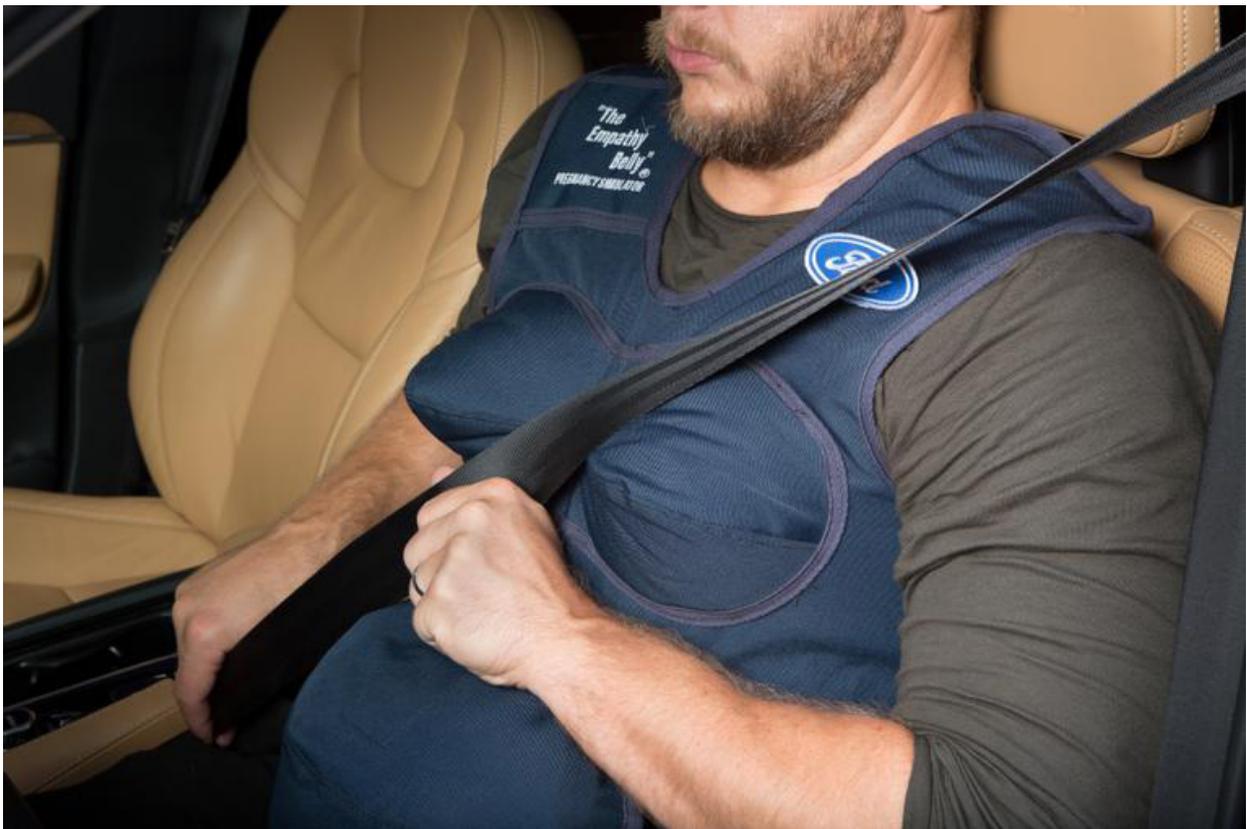


Figure 4.9 - "The Empathy Belly" (Ford Motor Company)

further exclude stakeholders from involvement in the design process by replacing them with props and gadgets.

However, design thinking *is* a highly effective way of generating collaboration in the design process if it includes the appropriate opportunities for collaboration. The obvious conclusion, then, is to hybridize these methodologies into a dynamic, complimentary workflow grounded in stakeholder collaboration. Expanding design thinking to include participatory methods alters the purpose of design itself away from that of an object-driven practice and toward that of an experiential activity undertaken by the designer and stakeholder as mutual collaborators (Allen 3). By emphasizing stakeholder engagement and collaborative design, the role of the designer can begin to shift from that of an exogenous creator to that of an enabler of cultural growth.

To accomplish this, The Social Design Toolkit proposes a new model of *participatory design thinking* (Figure 4.10) which contains certain *junction points* embedded in the workflow that allow these methodologies to overlap. Borrowing from elements of human-centered design, anthropology, and cross-cultural communication, this is a more internally disruptive model, allowing designers opportunities to question their process and acknowledge the biases that cloud understanding. These junction points (connect, collaborate, empower) would push designers to connect and collaborate with stakeholders through various open-sourced, participatory activities.

The framework for these junction points is built upon the six dimensions of culture posited by Dutch social psychologist Geert Hofstede (see Chapter 5: The Dimensions of Culture). Each junction point contains a range of participatory methods which fall into at least one of these six dimensions—the expectation being that they will provide insights into the various dimensions of cultural values.

The methods within this framework should be useful for designers to get approximations of the value systems and norms of the people we are engaging with. These will not provide the same depth of understanding that can be achieved through full-scale

ethnography, but they will provide actionable models to better inform the design process.

The purpose of overtly embedding participatory methods into the design thinking process would be to force designers to challenge their preconceptions. This is meant to open the design process to alternative ways of thinking and doing. Through this creative collaboration, designers might empower stakeholders to continue the design process beyond the scope of project deadlines. By expanding design thinking to a more open and inclusive process, we enhance the reciprocal relationship between designer and stakeholder by reducing the gap between these two roles and encouraging the integration of design skill with cultural knowledge.

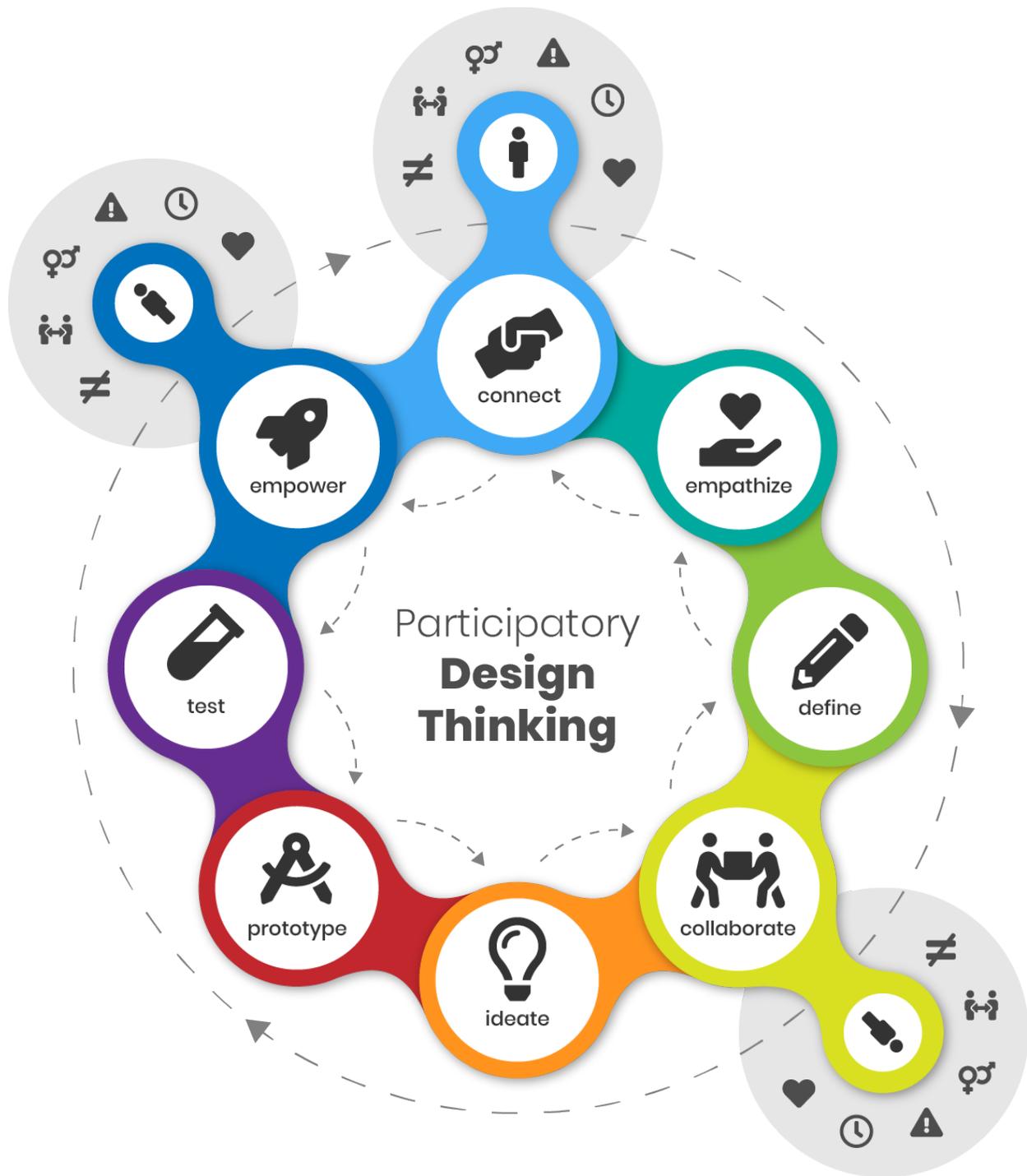


Figure 4.10 - the participatory design thinking model (Russell Pinkston)

*This model embeds new junction points (connect, collaborate, and empower) into the traditional design thinking process. At each junction point, designers will have the opportunity to undertake participatory methods which will help them recognize and disrupt their biases and preconceptions.*

## CHAPTER 5: THE DIMENSIONS OF CULTURE

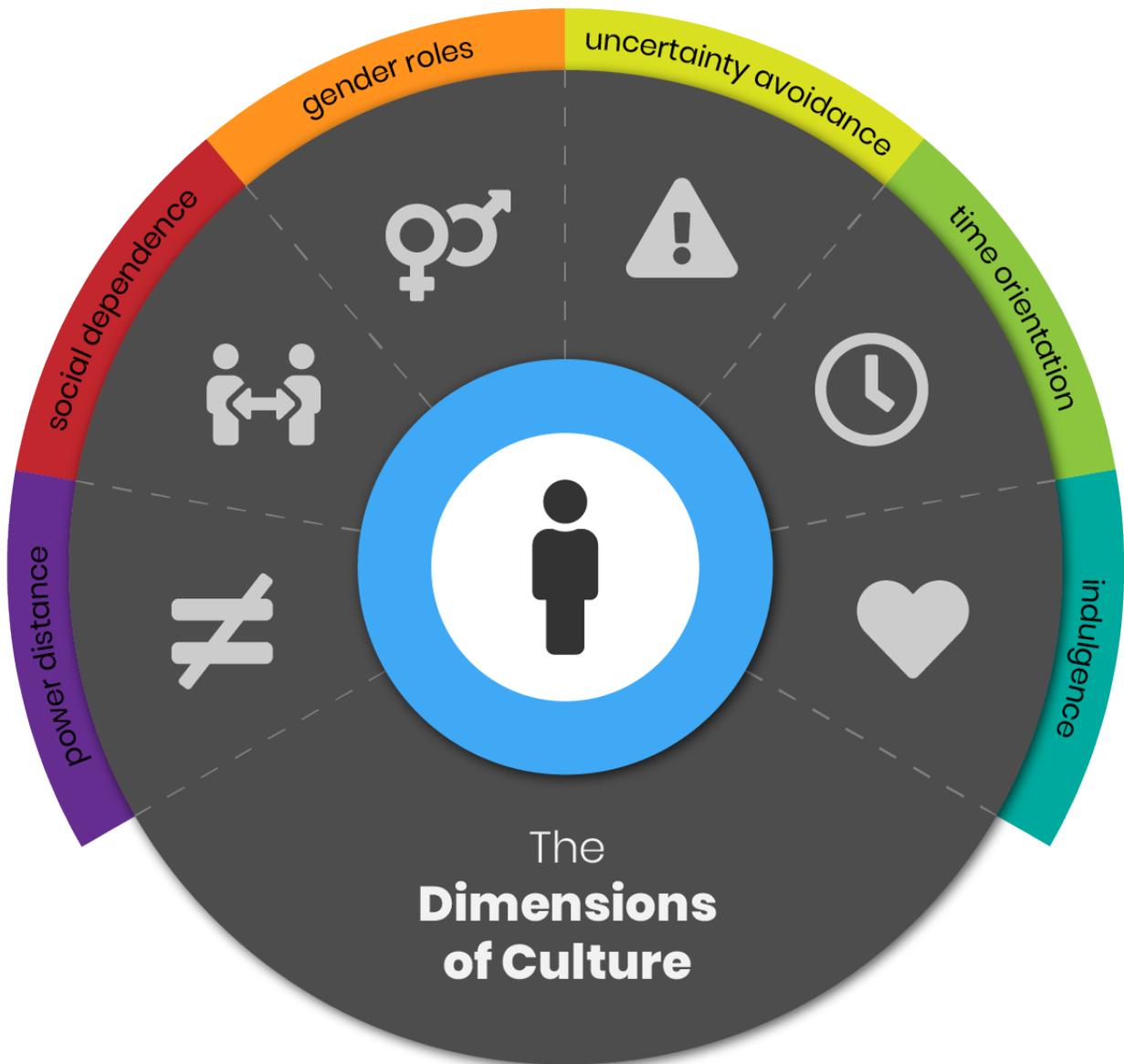


Figure 5.1 - the dimensions of culture (Russell Pinkston)

The six dimensions of culture were first posited by Dutch social psychologist Geert Hofstede in his seminal book, *Culture's Consequences*, in 1983. Hofstede's cultural dimensions theory describes the reciprocal effects of a society's culture on the values and behaviors of its members.

The connection between each of these dimensions and their impact on the design

process is not explicit. Contexts vary greatly from one situation to the next and cultures are never complete and static. As such, **these dimensions should not be used to directly inform design decisions.** Designers should not, for example, attempt to deduce the precise degree of "social dependency" in a culture and use these findings to design products based on personas defined by these characteristics. This would be a counter-productive activity that may actually serve to *reinforce* stereotypes rather than *challenge* them.

To utilize Hofstede's cultural dimensions theory without allowing it to influence our perceptions, we must attempt to shift the goal from confirmation to disruption. Hofstede's interpretations of qualitative cultural data were unavoidably made from the perspective of his own experience—that of a Dutch social psychologist. Similarly, we must understand that any attempts made by designers to classify the members of cultural groups into these six categories will be equally skewed by those designers' personal experiences—and this is precisely the point.

*Of course, humans are infinitely complex, but this is simply a model that we lay on top of that complexity to give us some insight. Holding a mirror up to an English person or an Egyptian person, for example, might show them how English or Egyptian they are and allow them to see that perhaps their way of doing things is not the only way (Hofstede).*

However, the inclusion of this framework in The Social Design Toolkit is not meant to validate Hofstede's observations but rather to question their validity. If used uncritically, these dimensions of culture can be hierarchical (literally ranking cultures on a scale relative to one another) and reductive (based in stereotypes and the biases of the researcher). Instead, this model should be used as a kind of fly trap for biases, a method of openly capturing all our preconceptions in one glass jar so they may be observed, dissected, and disrupted.

For this framework to be a useful disruptor of biases, designers should use it not as

a method of uncovering hidden truths about the members of a culture, but as a method of recording assumptions. This might take the form of a simple written list, where designers visit each dimension and write down as many assumptions as they can about stakeholder values. The act of considering and recording these assumptions is the first step toward acknowledging them, and the participatory design thinking workflow is the next step toward disrupting them (see Chapter 6).

Interpreting cultures is like interpreting the structure of waves on the ocean. They are never fully formed and are perpetually shifting. Yet, I offer Hofstede's dimensions as a point of (admittedly Western) reference in this task. If we are to disrupt our preconceptions, we must first understand *what* those preconceptions are. If the Western way of understanding "the other" is by questioning, ranking, and categorizing him, then we must begin with that understanding if we are to disrupt it.

The following outlines of each dimension are structured to briefly offer Hofstede's observations as well questions for how we might challenge any inherent biases and personal preconceptions.

## 5.1 POWER DISTANCE



the extent to which members of institutions and organizations expect and accept that power is distributed unequally.

The way in which power is distributed varies from culture to culture, with some cultures exhibiting a much greater separation between those with power and those without. To quote George Orwell's *Animal Farm*, "all animals are equal, but some are more equal than others." Some cultures lean toward egalitarianism and equality (what Hofstede called a small power distance), while other cultures lean toward elitism, where a few members of society control the subordinate masses (a large power distance).

Hofstede measured power distance on what he called the Power Distance Index (PDI), which ranged from 1-100, 1 representing cultures with small power distances and 100 representing cultures with large power distances. He observed that cultures with

small power distances tended to be more democratic, had less income inequality, a larger middle class, those in power tended to be younger, and innovations were more frequently proposed by subordinate members. Conversely, cultures with large power distances tended to be more oligarchical, had greater income inequality, a small middle class, those in power tended to be older, and innovations necessitated support by the hierarchy.

*Table 5.1 - Power Distance*

Small Power Distance	Large Power Distance
1. Inequality is wrong and should be reduced if possible	1. Inequality is considered a normal part of society
2. Hierarchy is needed to maintain order, but not permanent	2. Superiors are a different (superior) kind of people
3. Power should be used legitimately and everyone is under the same rules of law	3. Power comes first, good/evil comes after
4. Independence (from parents)	4. Respect (for parents)
5. Decentralization	5. Centralization
6. Subordinate workers expect to be consulted	6. Subordinate workers expect to be told what to do

### **Disrupt This!**

Power has become an incredibly central consideration in anthropology. The acceptance of Foucault's philosophy and a notion of power as a diffuse force infusing all encounters and ways of thinking themselves is a key consideration. Some important questions to consider:

- What institutions (particularly those that are not state sanctioned) hold/wield power in different contexts? How so?
- What power differentials exist and how do they manifest?
- How does power (or lack thereof) influence, reinforce, or create norms and ideas surrounding gender, sexuality, race, ethnicity, class, age?
- How do differentials of power impact collaborations or the generation of research?

It is important for designers to familiarize themselves the power structures in play within a culture so they can better understand the regulating bodies which drive cultural norms and the ways people react to this regulation. It also helps to know the proper channels through which design must be filtered.

## 5.2 SOCIAL DEPENDENCE



the extent to which members of a society are dependent upon others and are obligated to maintain social connections

The social ties which bind the members of a society to one another vary from culture to culture. Many cultures lean toward individualism—where the ties between individuals are loose and everyone is expected to look after themselves and their immediate family (father, mother, children). Conversely, many societies lean toward collectivism—where individuals are part of strong in-groups (including the family, extended family, and sometimes entire villages). A culture’s social dependence is a measure of the extent to which individuals are dependent upon community ties.

The measurement of a culture’s Individualism Values (IDV) again ranges from 1-100 and can only be measured relative to other societies. Hofstede found that individualist societies tended to be wealthier (placing a higher emphasis on profit), had a faster-paced lifestyle, had greater human rights, and a greater freedom of the press. Collectivist societies tended to be poorer (placing a higher emphasis on relationships), had slower-paced lifestyles, fewer human rights, and a lower freedom of the press. It is also worth noting the greater use of the word “I” in the language systems of individualist cultures. English, for example, is the only language that capitalizes the word “I.”

There is a correlation between a culture’s IDV and its PDI, where countries with smaller power distances tend to be more individualistic and vice versa. This turns out to be mainly an effect of the distribution of wealth.

*Table 5.2 - Social Dependence*

Individualist	Collectivist
<ol style="list-style-type: none"> <li>1. "I"</li> <li>2. Universalism (others classified as individuals)</li> <li>3. Individuals</li> <li>4. Tasks come first, relationships after</li> <li>5. Low-context communication (things must be specified and communication is more lengthy)</li> <li>6. Confrontations can do no harm and can sometimes be healthy</li> </ol>	<ol style="list-style-type: none"> <li>1. "We"</li> <li>2. Exclusionist (in or out group)</li> <li>3. Tribes</li> <li>4. Relationships come first, task seconds</li> <li>5. High-context communication (things are obvious, and communication can be kept short)</li> <li>6. Harmony exists to keep community/ society from falling apart</li> </ol>

**Disrupt This!**

Expanding this beyond a scale of individualism vs. collectivism, it would be useful to consider to what degree affiliation informs identity:

- In what ways might a person’s self-identity conflict with their group-identity and sense of belonging?
- Potential sub-dimensions to consider might include: national identity, political leaning, faith-based identity, ethnic and racial identity, pan-global identities of various kinds.

Importantly, people have multiple, overlapping communities they feel a part of, so assessing degrees of affiliation and the contexts of overrides is worth considering. An understanding of stakeholders’ social interconnectedness is, at the very least, helpful in determining what research techniques should be administered when collaborating with the people of a given culture. If decisions are usually made by communal agreement, then singling out individuals for the purposes of stakeholder research may produce conflicting results. Conversely, if decisions are left to smaller family units, then it may be difficult to reach consensus when performing research on larger groups. It is also possible that this may carry over into design decisions, where a solution which relies on individuals working together may prove unfruitful (and vice versa).

## 5.3 GENDER ROLES



the differences in emotional meanings and societal expectations between those born male and those born female

This dimension can be a bit tricky, and it is essential to understand the distinction here between gender and sex. Gender (how a person identifies on the spectrum of masculinity versus femininity) is not to be confused with a person's physiological birth sex (male versus female). This distinction allows the possibility for men to be feminine and women to be masculine (or any other combination).

To make this perhaps more confusing, Hofstede uses the terms "feminine" and "masculine" to refer to the amount of separation in emotional meaning between those born male or female. For example, a masculine society is one in which emotional gender roles are more distinct (there is a large separation between what it means to be male versus female), and a feminine society is one in which emotional gender roles are less distinct (the lines are blurred between what is expected of males and females).

Much like social dependence, a culture's gender roles can only be measured in relation to other cultures. Hofstede measured this on the Masculinity Index (MAS) on a scale of 1-100, finding that cultures with greater femininity tended to be more literate, had fewer people below the poverty line, spent more on aid to poor countries, and had greater leisure time. Cultures with greater masculinity tended to be less literate, had more people below the poverty line, spent less on foreign aid, and spent more time working. He also observed a difference in the perception of poverty, with masculine societies perceiving poverty as the result of laziness and feminine societies perceiving it as the result of bad luck. However, there appears to be no relationship between masculinity and degree of wealth. It is also worth noting that this is the only data set where Hofstede's results differed when polling men versus women.

Table 5.3 - Gender Roles

Feminine	Masculine
1. Emphasis on Work/life balance	1. Work takes precedence over family
2. Both parents deal with feelings	2. Father should deal with facts, Mother with feelings
3. Jealousy of the strong	3. Admiration for the strong
4. Sympathy for the weak	4. Disdain for the weak
5. No one should fight / either gender can cry	5. Boys fight and should not cry
6. Religion - focus on fellow human beings	6. Religion - God the Authoritarian father
7. Sexuality as a means for couples to relate to one another	7. Sexuality as a means to perform (man as subject, woman as object)

### Disrupt This!

Our contemporary understanding of gender has undergone tremendous changes in recent years. LGBTQ and Women’s rights movements are continually calling into question the balance between sex, gender, and identity. We are more sensitive than ever to the social forces which reinforce gender norms and stereotypes. Because of this sensitivity, Hofstede’s take on gender roles will likely seem oddly binary. I believe this dimension would be more useful to practicing designers if we dispel Hofstede’s masculine/feminine terminology and instead focus on some fundamental questions like:

- What fixed gender roles exist and what cultural expectations follow them?
- How do people conform to or rebel against these roles, and what are the social ramifications for doing so?

## 5.4 UNCERTAINTY AVOIDANCE



the extent to which members of a society tend to feel threatened by ambiguous and unknown situations

The dimension of uncertainty avoidance holds many implications related to cultural xenophobia, the strictness of rules and regulations, and the level of tolerance toward

people's differences. A culture is generally accepting of uncertainty if its people are open to change and new experiences. Conversely, a culture is generally avoiding of uncertainty if its people are hesitant or closed to these things.

Some fascinating correlations occur between uncertainty accepting and avoiding cultures: Accepting societies tend to have less alcoholism, fewer doctors, slower automobile drivers, more humor in advertising and a perception of the wealthy as less corrupt. Conversely, avoiding societies tend to have more alcoholism, more doctors, faster drivers, more authority figures in advertising, and a perception of the wealthy as being corrupt.

Hofstede measured this dimension by the Uncertainty Avoidance Index (UAI) on a scale of 1-100. There appears to be an oscillation in scores over time worldwide, with scores going up during periods of crisis/war and going down during periods of peace/stability.

*Table 5.4 - Uncertainty Avoidance*

Uncertainty Accepting	Uncertainty Avoiding
1. Uncertainty is novel and life should be taken as it comes	1. Uncertainty is a threat that must be avoided
2. Less stress and anxiety	2. More implied stress and anxiety
3. Emotions should be controlled	3. Emotions may sometimes be vented
4. Curious about differences	4. Afraid of differences
5. Want fewer rules, rules may be broken in case of necessity	5. Need for rules, even if impractical
6. De-regulation	6. Regulation
7. Innovations adopted more quickly	7. Innovations are adopted slowly
8. Changing of jobs is more easily done	8. People stay in same job as long as possible
9. Tolerance toward others	9. Xenophobia

### **Disrupt This!**

As Hofstede's observations were aimed at defining national-level sentiments, it may take some mental gymnastics to scale this down to a level that is relevant to design research. Small-scale communities encounter much more sub-cultural overlap than do nations, and so some aspects (for example xenophobia) may be less applicable. It will likely be more helpful to consider the levels of diversity and openness within small-scale communities.

For example:

- How easy is it for new members to join the group?
- How diverse is the member group?
- To what extent is membership regulated? Are there extensive rules that must be followed to maintain membership, or is simple geography or race the defining factor?
- Do meeting places exist across a broad range of socially diverse “third places,” or do members meet in relatively few locations (such as members’ homes) or even a single location (such as a high school gymnasium or religious building)?

Determining these factors may help designers understand to what extent people would be open to the possibility of bold, new design ideas versus traditional methods.

## 5.5 TIME ORIENTATION



the extent to which a society fosters pragmatic virtues oriented toward short-term or long-term rewards and obligations

Time orientation, as a dimension of culture, was added in 1991 to Hofstede’s original four dimensions. In collaboration with Michael Bond at the University of Hong Kong, additional insights were collected from questionnaires made by Chinese scholars which revealed additional cultural trends from 23 countries. Years later, using data collected by Dr. Michael Minkov from the 1994-2004 World Value Survey, the number of countries from which data was collected jumped from 23 to 93, further solidifying these patterns.

As a scale of measure, time orientation refers to a society’s focus on short-term versus long-term goals. If a culture is short-term oriented, it fosters virtues related to the past and present, such as conservatism, nationalism, and tradition. If a culture is long-term oriented, it fosters virtues oriented toward future rewards, such as perseverance, saving, thriftiness, and adaptability to changing circumstances.

Hofstede measured this dimension by the Long-Term Orientation Index (LTO) on a

scale from 1-100. He observed that in short-term oriented cultures, economic growth in poor countries was more stagnant, secondary school students scored lower in math but rated themselves higher, and investors preferred to deal in shares and mutual funds. In long-term oriented cultures, economic growth progressed faster in poor countries, secondary school students scored higher in math but rated themselves lower, and investors preferred to deal in real-estate and family businesses.

*Table 5.5 - Time Orientation*

Short-term Orientation	Long-term Orientation
1. Good/evil are absolute and always the same	1. Good/evil are relative
2. Fixed norms always apply	2. Which norms apply depend on the situation
3. A superior person is always the same	3. A superior person knows how to adapt
4. We seek positive affirmation about ourselves	4. We should be humble
5. Proud of our own country	5. Desire to learn from other countries
6. Traditions are sacrosanct	6. Traditions can be changed
7. Always a contradiction between oppositions	7. When two truths oppose, they may be integrated
8. Fundamentalism, choosing the extreme	8. Use of common sense to resolve problems (Occam's razor)

### **Disrupt This!**

Time orientation is something that has been convincingly argued as shifting globally over time at different moments rather than society to society. A few things to consider:

- There's always a class/socioeconomic dimension to this (who can afford to take risks and plan ahead?).
- On what theological/cosmological timescales are people making decisions? An evangelical Christian will have a very particular time orientation compared to an environmental activist.

An understanding of the time orientation of stakeholders will likely affect the timeline

of any relevant design solutions. For example, an infrastructure transition from fossil fuels toward renewable energies will require a much longer timeline (decades) compared to a program aimed at increasing retention rates of high school seniors (months). It should also be taken into consideration that different stakeholders may be working on different timelines.

## 5.6 INDULGENCE



the extent to which societies encourage or discourage the gratification of basic and natural human desires

Also influenced by the data contributed by Dr. Minkov and the World Value Survey, the dimension of indulgence was added to the previous five dimensions by the year 2004. This data uncovered patterns which so far had not been found in the previous dimensions regarding the level of restraint versus indulgence exhibited by the members of societies. Restrained societies, it was found, tended to suppress the gratification of basic human desires by strict regulations and social norms. Indulgent societies, conversely, tended to allow relatively free gratification of human desires, emphasizing the need to have fun and enjoy life.

There is no absolute standard by which to judge a culture's level of indulgence, and so this can only be judged by comparing one society to another. Hofstede measured this by the Indulgence Versus Restraint Index (IVR) on a scale of 1-100. Restrained societies, in his comparison, tended to have lower crime rates but larger police forces, lower birth rates, less obesity, and a propensity toward nationalism. Indulgent societies, on the other hand, tended to have higher crime rates but smaller police forces, higher birth rates, higher obesity levels, and greater tolerance of foreign cultures. Restrained societies also placed a higher importance on maintaining order while indulgent societies place a higher importance on the freedom of speech.

Hofstede found that societies have become more indulgent worldwide over the years, but their scores relative to one another have stayed relatively the same, so this

rating can be assumed to be stable over time.

Table 5.6 - Indulgence

Restrained	Indulgent
1. People tend to feel less happy and less healthy	1. People tend to feel healthier and happier
2. Perception that events are out of personal control	2. Perception individuals have control over their personal lives
3. Stronger work ethic	3. Stronger leisure ethic
4. Pessimistic, Cynical attitude	4. Optimistic, Positive attitude
5. Introversion	5. Extroversion
6. Friendships are less important	6. Friendships are more important
7. Less active participation in sports	7. More active participation in sports
8. Stricter moral discipline	8. Looser moral discipline

### Disrupt This!

Perhaps the biggest red flag here is that what counts as a “basic and natural human desire” is context dependent rather than universal. For example, many nations mandate by law that employers offer new fathers several months of paternity leave, while others do not. On a much smaller scale, what constitutes a basic human desire for a church group might be very different from that of a darts league. As this is entirely subjective, designers should try not to get caught up in defining universal human rights and desires. Instead, try to focus on the opportunities stakeholders are given to pursue that which is important to them specifically.

- What do stakeholders want/need at a basic level?
- Are these wants/needs being fulfilled, and by whom (the stakeholders themselves, or a larger governing body)?
- What degree of freedom is allowed for stakeholders to alter social norms to suit their individual needs, and what are the consequences for this?
- How greatly do desires vary between individuals, and is there a median range that encompasses the group as a whole?

Understanding the wants and needs of individuals and how this relates to the wants and needs of the group may be an essential factor to defining the range of possible design solutions. Try comparing this with the dimension of Social Dependence. It may be that the best solution is one that suits the common denominator, or it may be that the best solution is found in examples of positive deviance from the norm.

## 5.7 MORE ABOUT THESE DIMENSIONS

Hofstede's research used the statistical method of factor analysis—a process of condensing complex data into correlated variables. From 1967-1973, Hofstede conducted over 120 thousand surveys of cultural values from the employees of IBM International from 72 countries in 25 languages. The results of these surveys elucidated the way these cultures functioned, laying the groundwork for the Western understanding of cross-cultural psychology and communication. Hofstede identified several patterns inherent in all cultures which have been formed into six unique factors (or *dimensions*). I have taken the liberty of renaming these dimensions slightly for the sake of simplicity and continuity.

## 5.8 ALTERNATIVE VOICES

The following is a simple list of alternative voices for further reading which may offer very different models of cultural interpretation from that of Hofstede:

- [Arjun Appadurai](#)
- [Dori Tunstall](#)
- [Talal Asad](#)
- [Terri Irwin](#)
- [Victor Papanek](#)
- [Avner Ben-Zaken](#)
- [Klukhohn and Strodbeck](#)
- [Arturo Escobar](#)
- [Boaventura de Sousa Santos](#)

## CHAPTER 6: THE SOCIAL DESIGN WORKFLOW

The Social Design Toolkit offers a new participatory design thinking workflow that combines methods from cultural anthropology, design thinking, participatory design, and cultural dimensions theory. However, instead of investing itself too heavily in any of these, this workflow attempts to liberate its methods by providing opportunities for these disciplines to overlap. In other words, this is not a rigid guide on how to design, but a collection of methods which encourage designers to investigate the cultural contexts surrounding their design decisions.

### 6.1 PHASE 1: IDENTIFICATION

#### Step 1 - Identify the Problem

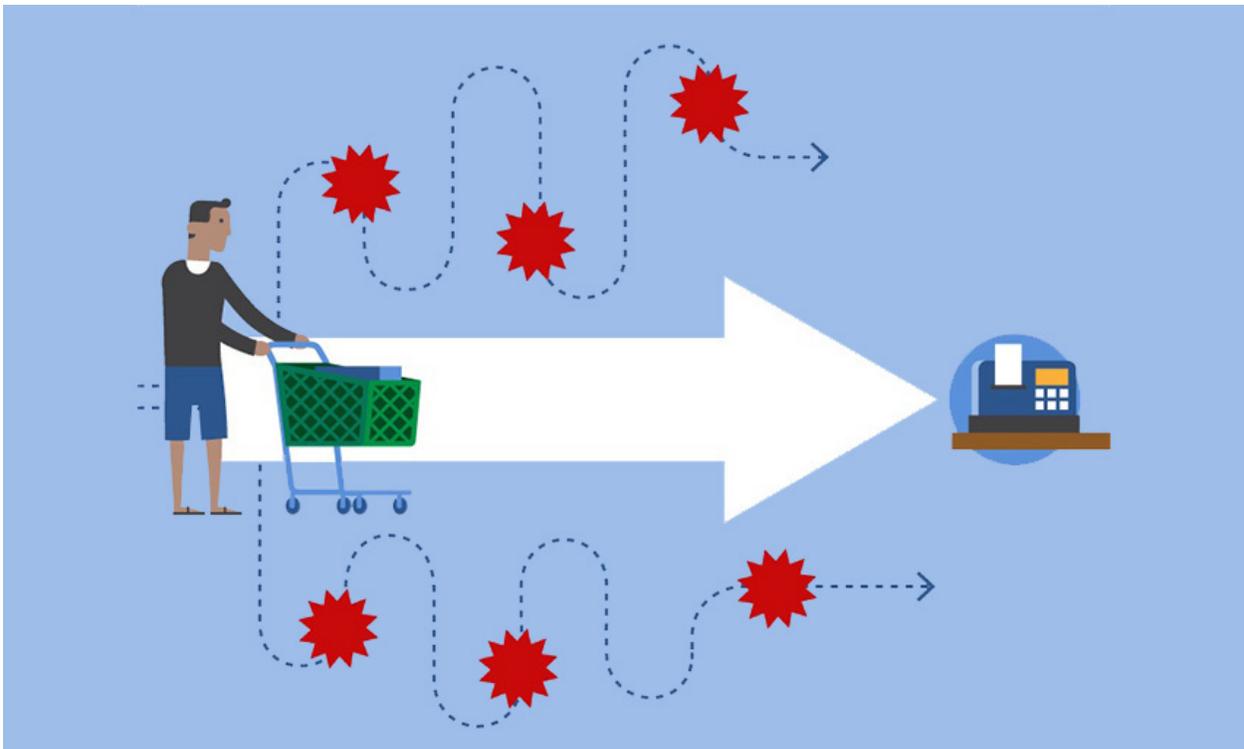


Figure 6.1 - identify the problem

*Loosely* define the problem you are trying to address. This will give your project direction, but it is important not to be overly rigid. The more you discover, the more your problem definition is likely to shift.

Begin by identifying “pain points” that need to be addressed. A pain point is a specific problem that a prospective stakeholder is experiencing. These can be as diverse and varied as stakeholders themselves, and not all stakeholders will be aware of the pain point they are experiencing, which can make them difficult to identify.

Pain points are often grouped into four broad categories:

- **Financial Pain Points:** Your prospects are spending too much money and need to reduce their spending
- **Productivity Pain Points:** Your prospects are wasting too much time or resources and need to be more efficient
- **Process Pain Points:** Your prospects want to improve internal processes
- **Support Pain Points:** Your prospects aren’t receiving the support they need at critical stages

Basically, you should try to figure out who has a need, what that need is, and why you should solve it.

## Step 2 - Identify the Constraints

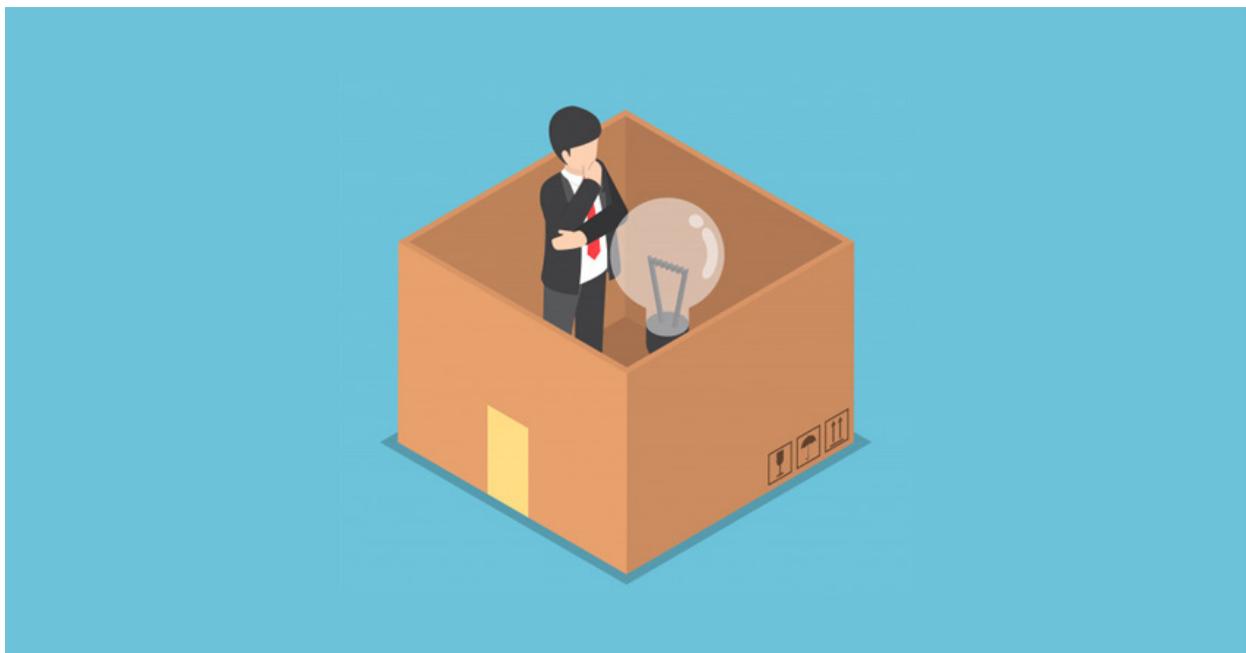


Figure 6.2 - identify the constraints

Design constraints are limitations imposed on possible design solutions. These include limitations that are out of your control (such as those imposed by stakeholders, the development organization, or by external regulations) as well as ones that are self-imposed as a way to improve design. For example:

- What are the time and resource limitations?
- Are you working within local or state government restrictions?
- Are there certain *must haves* that your project needs to meet?

Constraints may be imposed upon any part of the system. Try to categorize the type of constraints (e.g., hardware, software, procedural) and then identify the specific constraints for each category. The following are common types of design constraints:

- **Commercial Constraints:** Basic commercial constraints such as time and budget
- **Requirements:** Functional requirements such as specifications of features for a website
- **Non-Functional Requirements:** Requirements that specify intangible elements of a design
- **Compliance:** Compliance to applicable laws, regulations, and standards
- **Style:** A style guide related to an organization, brand, product, service, environment, or project
- **Sensory Design:** Constraints may apply to taste, touch, sound, and smell
- **Usability:** Usability principles, frameworks, and standards
- **Principles:** The design principles of an organization, team, or individual
- **Integration:** A design that needs to work with other products, services, systems, processes, controls, partners, information, etc.

Placing the project within such constraints will help you define the scope of what is plausible.

### Step 3 - Identify the Stakeholders



Figure 6.3 - identify the stakeholders

Identify the stakeholders affected by the project. This is not limited to “end users,” but might also include:

- Customers
- Manufacturing workers
- Transportation specialists
- Community leaders
- Regulatory boards
- Suppliers
- Investors
- Etc.

Knowing who is affected by problems will help you pinpoint who to work with to find possible solutions.

## 6.2 PHASE 2: PRECONCEPTION

### Step 4: Check Your Biases

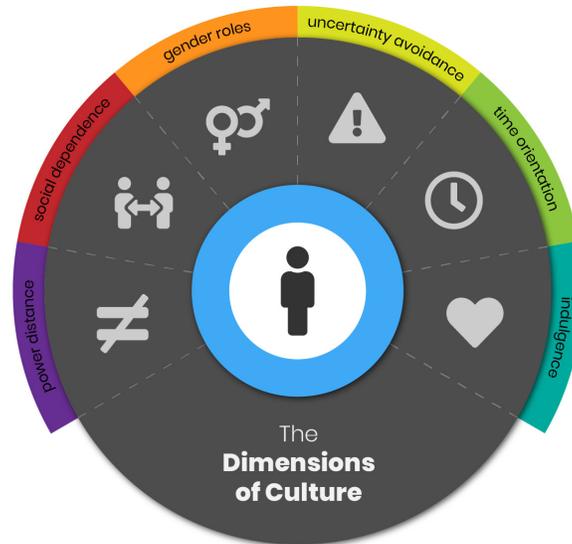


Figure 6.4 - check your biases

Use Hofstede's Cultural Dimensions Theory (see Chapter 5) to make estimations about cultural values. Hofstede's theory groups several patterns found across cultures into six categories (or *dimensions*).

- **Power Distance:** the extent to which members of institutions and organizations expect and accept that power is distributed unequally
- **Social Dependence:** the extent to which members of a society are dependent upon others and are obligated to maintain social connections
- **Gender Roles:** the differences in emotional meanings and societal expectations between those born male and those born female
- **Uncertainty Avoidance:** the extent to which members of a society tend to feel threatened by ambiguous and unknown situations
- **Time Orientation:** the extent to which a society fosters pragmatic virtues oriented toward short-term or long-term rewards and obligations

- **Indulgence:** the extent to which societies encourage or discourage the gratification of basic and natural human desires

For each of these dimensions, make a list of any assumptions you have about stakeholder values. These should be purely speculative and should be written down before conducting deeper research into the lives of stakeholders. The idea here is to clearly and concisely outline any preconceptions you are bringing to your design process. During this process, you may find that some parts of this list turn out to be correct and others not — and that’s okay! It’s better to learn about your preconceptions during the research phases than after your design has been implemented.

### Step 5: Assumption Personas

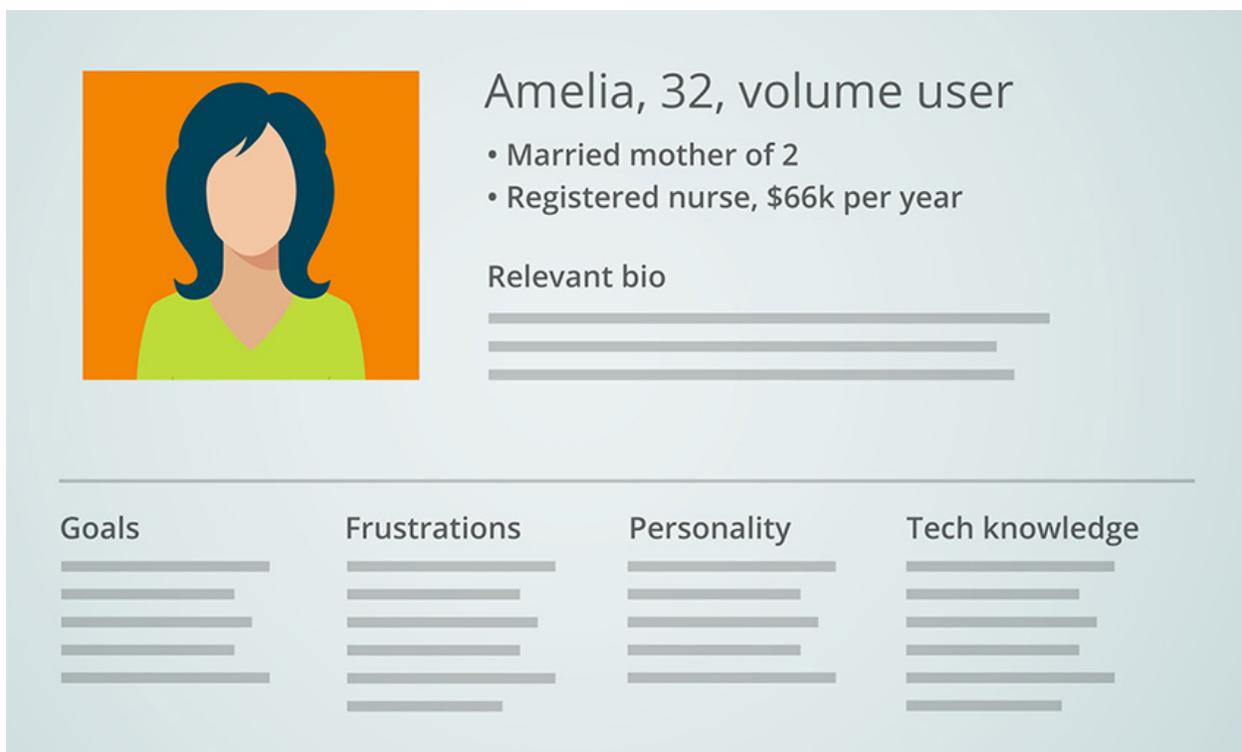


Figure 6.5 - assumption personas

In this step, you will create a few Assumption Personas. Think of these as brief dossiers representing imaginary stakeholders. Look over the list of assumptions of cultural values you made in Step 4. Next, take one of your assumptions from each of these

dimensions and group them together into a persona. Go ahead and give this persona a proper name. You might even add an avatar to help you imagine what this persona might look like. If you've assigned any demographics to the personas, ask yourself what led you to these conclusions.

Repeat this until you've grouped all your assumptions into several individual personas. Put these personas in a safe place. In subsequent steps, you will validate or invalidate these assumptions. Think of this as a fly trap for preconceptions. The purpose of this is to put all your assumptions in one place so you can quarantine, dissect, and disrupt them.

### 6.3 PHASE 3: REALIZATION

#### Step 6: Participatory Design Thinking

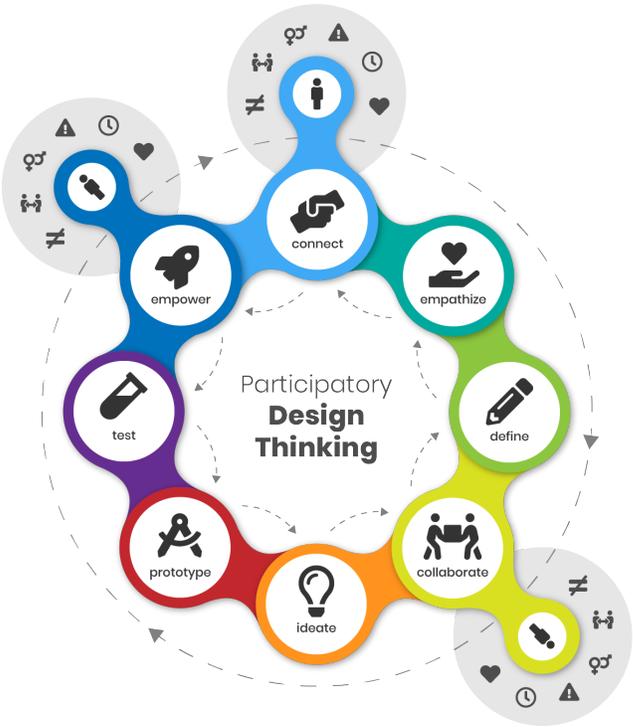


Figure 6.6 - participatory design thinking

The participatory design thinking model is a hybridization of participatory design methods with the design thinking workflow. **The traditional design thinking model** (empathize, define, ideate, prototype, test) is an iterative process of problem-framing, creative thinking,

and ideation. It is a highly effective model for producing collaborative ideas—though, at times, it can lack opportunities for designers and stakeholders to collaborate and learn from one another. The participatory design thinking workflow found here attempts to address this separation by interjecting participatory design methods into the design thinking workflow at several junction points.

These new junction points (connect, collaborate, empower) will provide you with opportunities to undertake any number of participatory methods with stakeholders. These activities will create a process of reciprocal learning that allows you to simultaneously question your biases and discover alternative ways of thinking and doing.

### **Connect:**

Begin by consulting the **method cards** in search of methods which allow you to make personal connections to your stakeholders. The point is to put real names and faces to the roles you listed in Step 3. This is not simply a method of developing personas, but a way of breaking the ice and forging human connections that will inform your process.

- Once you have made these preliminary connections, recreate the list of assumptions you made in Step 4, being mindful of any changes.

### **Empathize:**

This stage of the design thinking process is to gain an empathic understanding of the problem you are trying to solve. This involves consulting experts to find out more about the area of concern through observing, engaging and empathizing with people to understand their experiences and motivations, as well as immersing yourself in the physical environment so you can gain a deeper personal understanding of the issues involved.

Empathy is crucial to design, allowing designers to set aside their assumptions about the world in order to gain insight into stakeholders and their needs.

### **Define:**

During the define stage, you will analyze your observations and synthesize them

in order to define the core problems that you and your team have identified up to this point. You should seek to define problems from the perspective of your stakeholders. For example, instead of saying: “We need to increase the availability of healthy food options in low-income neighborhoods by 10%,” a much better way to define the problem would be: “Teenagers in low-income neighborhoods need to eat more nutritious food in order to thrive.”

The define stage will help the designers in your team gather great ideas to establish features, functions, and any other elements that will allow them to address problems.

### **Collaborate:**

When you come to this step, you will revisit the method cards, this time in search of participatory methods which bring stakeholders into the design process.

Try to choose methods that allow stakeholders to “pick up a pen” and ideate on what they think a solution might look like. The insights generated by this might be impossible to implement—but that’s okay! What you are doing is allowing stakeholders to voice their concerns and share their knowledge. You will be learning from stakeholders’ first-hand experience, and they will be learning from you about how to systematically approach complex problems.

- This should not be a prescribed process, but a dynamic one. If you find that a certain method is not working, try another. If you find that your problem definition is shifting, shift the methods you are using accordingly.
- Once you have completed some participatory methods, again recreate the list of assumptions you made in Step 4, being mindful of any new changes.

### **Ideate:**

During this stage of the design thinking process, designers are ready to start generating ideas. You and your team members can start to brainstorm new solutions to the problem statement you’ve created, and you can start to look for alternative ways of

viewing the problem. It is important to get as many ideas out as possible at the beginning of the Ideation phase. Don't worry about something being silly or impossible! At this stage, anything goes!

### **Prototype:**

The design team will now produce a number of inexpensive, scaled down versions of the solution or any specific features found within the solution. Prototypes may be shared and tested within the team itself, in other departments, or on a small group of stakeholders outside the design team. This is an experimental phase, and the aim is to identify the best possible solution for each of the identified problems.

The solutions implemented within the prototypes are investigated and either accepted, improved and re-examined, or rejected on the basis of the stakeholders' experiences. By the end of this stage, the design team will have a better idea of problems and constraints, and have a clearer view of how real stakeholders would behave, think, and feel when interacting with the final solution.

### **Test:**

Designers or evaluators rigorously test the best solutions identified during the prototyping phase. While this is the final stage of the traditional design thinking model, this is meant to be an iterative process. The results generated during the testing phase are often used to redefine one or more problems and inform designers' understandings of the stakeholders, the conditions of use, how people think, behave, and feel.

- **Remember that this is not a completely linear process. If at any time in these stages you feel the need to reconnect with stakeholders, you should go back to the method cards in search of new ways to generate insights.**

### **Empower:**

The Participatory design thinking model take things one step further. As a result of the participatory methods you have undertaken with stakeholders, a reciprocal relationship

has been formed whereby the design team was able to learn from stakeholder experience and stakeholders were able to learn from the design process. The power of this reciprocal relationship is that it can, in a sense, make participants into design ambassadors. The simple colloquialism that “if you give a man a fish, he will eat for a day—but if you teach a man to fish, he will eat for a lifetime” could not be more appropriate here. By including stakeholders as participants in design, you expose these stakeholders to your own process, enabling them to use participatory design thinking long after project deadlines have passed.

### **Step 7: Reflect**



*Figure 6.7 - reflect*

At the end of your project, you should revisit the assumptions you made in Phase 2 and reflect on where you were right, where you were wrong, what methods were successful, and what you might do differently next time. Like design thinking, participatory design thinking is an iterative process that doesn't stop at the completion of a project. Your process should never be set in stone but should always be open to criticism and personal growth.

Throughout this process, you may discover methods that are not working for you,

in which case you should discuss any issues in The Social Design Toolkit [forums](#). You may also discover new methods that are effective but not currently included in the toolkit; you can feel free to add those new methods at <https://socialdesigntoolkit.com/toolkit/add>.

## CHAPTER 7: TOOLKIT AND PRECEDENTS

Many design theorists are attempting to address the hegemony of traditional design practices, urging a shift to reflexive methods that push designers toward a more human-centered agenda. However, theoretical design writing can tend to lack pragmatic framings, and often these theorists do not provide clear steps and tools which practicing designers can use to achieve the desired ends. At other times, the frameworks provided can be prohibitively resource intensive.

For example, design anthropologists push toward the inclusion of ethnographic methods in design research, but most designers simply do not have the resources to mount full-scale studies of cultural life. Ethnographic studies can be prohibitively resource-intensive and do not always include the studio element found in design thinking—an element which is highly effective for prototyping solutions. So, the drive behind The Social Design Toolkit was to first combine these methodologies into the participatory design thinking workflow found in Chapter 4, and then to provide a companion toolkit by which practicing designers might more easily access the necessary methods and information.



Figure 7.1 - IDEO's Method Cards

This toolkit has taken a cue from several of the design *method cards* in circulation, such as those produced by IDEO, Frog, Kelly Anne McKercher, Jessica Lowy, and Lesley-Ann Noel. These card decks provide designers with a quick, transportable reference for undertaking design activities. The goal of The Social Design Toolkit was to create something similar, but in a more dynamic format, allowing the cards to be crowd-sourced and digitally sortable.

To reinforce the benefits of a participatory design process, my project will take the form of a collaborative toolkit, organized in a way that fosters discussion, enabling reciprocal learning between designers and stakeholders and increasing cultural diversity in the design process. As such, the project uses a web-based medium that is optimized for accessibility, interactivity, and collaboration (<https://socialdesigntoolkit.com>).

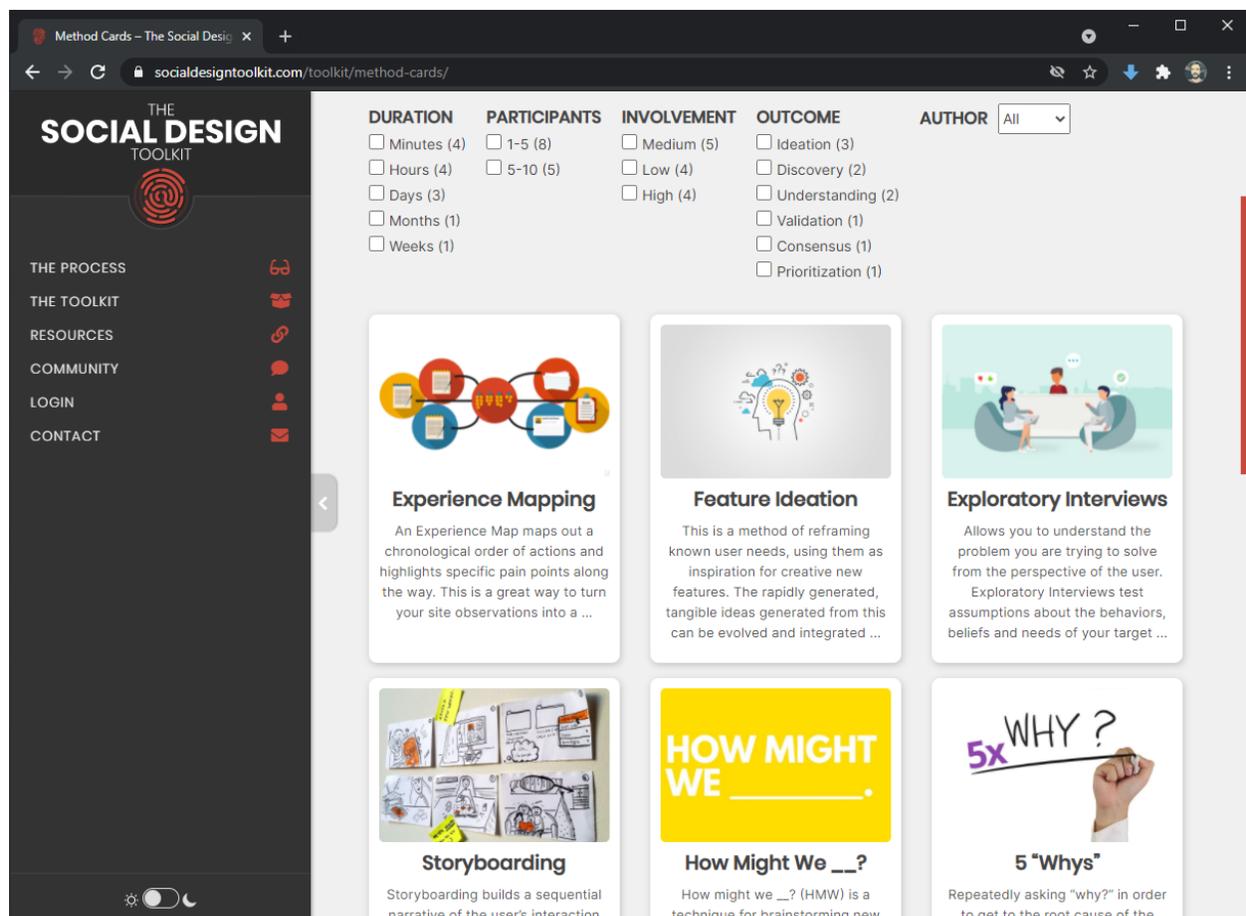


Figure 7.2 - <https://socialdesigntoolkit.com/toolkit/method-cards>

The online toolkit comprises a summary of the relevant background information from this written thesis; the toolkit, including method cards and an in-depth walkthrough of the participatory design thinking workflow; additional resources that designers might find useful and several related texts for further reading; and a forum where stakeholders can come together to discuss ideas and make connections.

The web-based format of the project allows designers to filter and sort the methods found in the toolkit, picking and choosing relevant methods depending on the context of the situation. It also provides visitors with a simple form by which anyone may submit new methods to the toolkit. Upon review by a site administrator, these submissions will automatically appear in the list of available cards. Through this, the social design workflow and the participatory design thinking process become open and crowd-sourced methodologies, with ownership resting in the hands of any who wish to contribute.

Behind the scenes, the website itself is completely responsive to any size device screen, making it accessible from desktop computers and laptops to mobile devices like smartphones and tablets. This will make these method cards more

accessible to designers both in the studio and in the field. The site also has a “dark mode” to increase legibility for the visibility impaired and to reduce battery consumption on these portable devices.

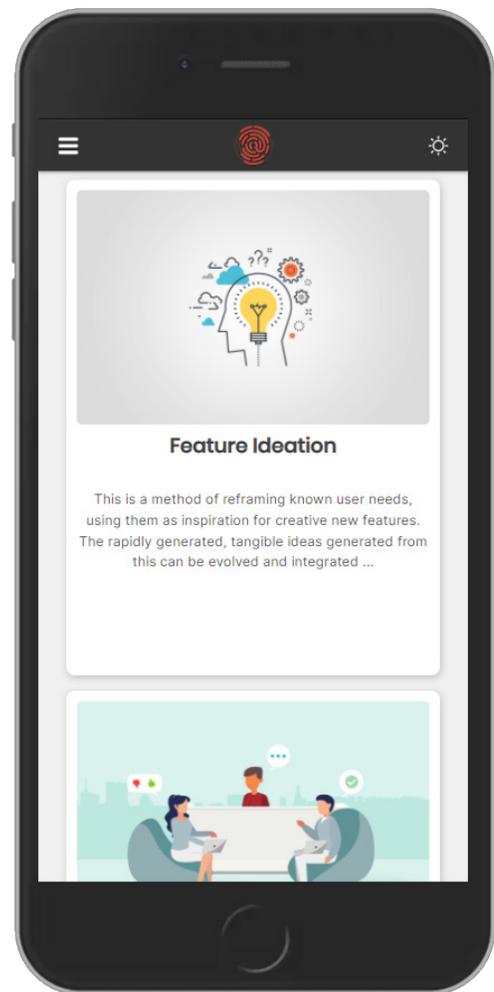


Figure 7.3 - the mobile site

## CHAPTER 8: REFLECTIONS

Over the last few years while researching the content of this paper, the framing of this project has undergone several iterations. What began as an undergraduate independent study into the evolution of design styles became a treatise on the connection between design and culture, a capstone paper on decolonizing methodologies, an unapologetic advocate for design anthropology, and, finally, a graduate toolkit for social design. Though this project has gone through all these iterations (and though my research has led me down some very divergent paths) one thing that has remained constant throughout is the universality of all these diverse topics. Much like Carl Sagan curating the Voyager discs, my biggest struggle was in deciding what elements to *exclude* from the paper, and what continually surprises and amazes me about design is not only its transdisciplinary nature but its tremendous importance to humanity's past and future.

An unfortunate obstacle facing many designers is the belief that there is a separation between design theory and design practice; but they are not separate. They are not even two sides of the same coin. They are interwoven factors of the same formula. Instead of compartmentalizing theory and practice (research and design), we need methods of allowing the two to blend into a more dynamic workflow.

The Social Design Toolkit will hopefully illustrate for designers that people do not need formal design degrees for their personal insights to be relevant to the design process. What they need are opportunities to voice those insights to designers.

At the center of all my research were two entities: *humanity* and *design*. Everything I researched came back to these because they are at the core of everything we do. They are intertwined, unavoidable, and through them all things are connected and anything is possible. My attempt to breach the surface of this sociocultural aether has been one of the most rewarding experiences of my life. To glimpse a more intimate understanding of the interconnectedness of humanity—made whole by our collective ability to reinterpret reality—is to glimpse the sublime that lingers and storms within each of us.

My hope for this project is that it will begin to enlighten and inspire designers to appreciate the heights to which humanity can aspire given the proper opportunities and encouragement. With this toolkit, designers might become a little more willing to take the risk of opening their process up to collaboration. Design is not a weapon to be wielded by a few, but a flame to be awoken within each of us. Given the chance, people will always surprise us and push us to think in ways we never imagined possible.

# ACKNOWLEDGMENTS

The committee for this project was made up of faculty members from North Carolina State University's College of Design as well as the College of Humanities and Social Sciences. This cross-disciplinary committee was essential to ensure that both designers and stakeholders were equally represented in this project. Each of the following committee members has been crucial to the research, and their contributions to design and anthropology continue to push for a more egalitarian relationship between researchers and the people they study. Without their efforts, this project would have suffered immensely.



**CHAIR**

---

**Tania Allen**  
Art & Design  
NCSU



**MEMBER**

---

**Dr. Christian Doll**  
Anthropology  
NCSU



**MEMBER**

---

**Dr. Lesley-Ann Noel**  
Art & Design  
NCSU



**MEMBER**

---

**Dr. Traci Rider**  
Doctor of Design  
NCSU



**RUSSELL PINKSTON**

---

**Master of Art & Design**  
NCSU

## REFERENCES

- Allen, Tania. *Solving Critical Design Problems*. Routledge, 2019.
- Ansari, Ahmed, et al. "Editorial Statement." *Decolonising Design*, 27 June 2016, [www.decolonisingdesign.com/statements/2016/editorial/](http://www.decolonisingdesign.com/statements/2016/editorial/).
- Appadurai, Arjun. *Modernity at Large*. University of Minnesota Press, 1996.
- Batson, C. Daniel, et al. "Four Forms of Prosocial Motivation." *Social Motivation*, edited by David Dunning, Psychology Press, 2011, pp. 103-126.
- Boas, Franz. *Race, Language and Culture*. The MacMillan Company, New York, 1940.
- Brownlee, John. "Can Good Graphic Design Help the Homeless?" *Fast Company*. August 2013 [www.fastcompany.com/1673225/can-good-graphic-design-help-the-homeless](http://www.fastcompany.com/1673225/can-good-graphic-design-help-the-homeless).
- Buchanan, Richard. "Wicked Problems in Design thinking." *The Idea of Design*, MIT Press, 1996.
- Caroll, Antoinette. *Equity-Centered Community Design Field Guide*. Creative Reaction Lab, St. Louis, 2018.
- Churchman, C West. "Wicked Problems." *Management Science*, vol 4, no. 14, 1967.
- Cole, Teju. "The White-Savior Industrial Complex." *The Atlantic*, 21 Mar. 2012, [www.theatlantic.com/international/archive/2012/03/the-white-savior-industrial-complex/254843](http://www.theatlantic.com/international/archive/2012/03/the-white-savior-industrial-complex/254843).
- Crouch, Christopher and Jane Pearce. *Doing Research in Design*. Berg, 2012
- Caesar, Julius. *The Gaelic Wars*. Book 6, Chapter 14.
- Dilnot, Clive. "Ethics in Design: 10 Questions." *Design Studies: A Reader*, Edited by Hazel Clark and David Brody, Bloomsbury, 2009, pp. 180-190.
- Douglas, Michael. "Tramjatra." *Doors of Perception 6: Lightness*, Amsterdam, November 11-13, 2000.
- Dunning, David. *Social Motivation*. Psychology Press, Taylor and Francis, 2011.
- Escobar, Arturo. *Designs for the Pluriverse*. Duke University Press, 2018.
- Fairs, Marcus. "Ikea Refugee Shelter to be Redesigned Following Safety Fears and Design Flaws," *Dezeen*. April 2017.
- Fairs, Marcus. "Incremental Housing Strategy," *Dezeen*. May 2009, [www.dezeen.com/2009/05/05/incremental-housing-strategy-by-filipe-balestra-and-sara-goransson/](http://www.dezeen.com/2009/05/05/incremental-housing-strategy-by-filipe-balestra-and-sara-goransson/).
- Florida, Richard. *The Rise of the Creative Class*. Basic Books, 2002.
- Foster, George M. "Peasant Society and the Image of Limited Good." *American Anthropologist*, 1965.
- Gergen, Kenneth. "The Social Constructionist Movement in Modern Psychology." *American Psychologist*, 40 (3): 266-275, 1985.
- Gergen, Kenneth. "Ken Gergen Talks About Social Constructionist Ideas, Theories and

- Practice." YouTube. <https://youtu.be/-AsKFFX9Ib0>.
- "Slum Upgrading in India," *Global Communities*. August 2009, Hall, Stuart and Tony Jefferson. *Resistance Through Rituals: Youth Subcultures in Post-War Britain*. Routledge, 1976.
- Hofstede, Geert. *Culture's Consequences*, 3rd Ed. SAGE, 2001.
- "Design for Social Impact," IDEO. The Rockefeller Foundation.
- "The Field Guide to Human-Centered Design." IDEO, Canada, 2015.
- Jepchumba. "Saki Mafundikwa." *African Digital Art*, September 26, 2009, [www.africandigitalart.com/2009/09/saki-mafundikwa](http://www.africandigitalart.com/2009/09/saki-mafundikwa).
- Jen, Natasha. "Design thinking is Bullsh\*t." *99U Conference*, New York City, June 7-9, 2017, <https://youtu.be/raleGrTdUg>.
- Jung, Carl. *Archetypes and the Collective Unconscious*. Edited and Translated by Gerhard Adler and RFC Hull, Bollingen Foundation Inc., New York, 1959.
- Kenez, Peter. *The Birth of the Propaganda State: Soviet Methods of Mass Mobilization, 1917-1929*. Cambridge University Press, 1975.
- Koffka, Kurt. *Principles of Gestalt Psychology*. Kegan Paul, Trench, Trubner, and Co., New York, 1936.
- Kohler, Wolfgang. *Gestalt Psychology*. Liveright, New York, 1947.
- Lechner, Frank. *The Globalization Reader*. edited by Frank J Lechner and John Boli, 5th ed, John Wiley & Sons, 2015.
- Locke, John. *Two Treatises of Government*. Yale University Press, 2003.
- Malinowski, Bronislaw. *Argonauts of the Western Pacific*. EP Dutton, 1922.
- Mathews, Gordon. *Ghetto at the Center of the World*. The University of Chicago Press, Chicago, 2011.
- Meggs, Philip B and Alston W Purvis. *Meggs' History of Graphic Design*, fifth edition, John Wiley & Sons, Inc., 2012.
- Murphy, Keith. "Design and Anthropology." *Annual Review of Anthropology*, 2016. 45:433-49.
- "Trafficking in Rohingya Camps Feared Rising," *New Delhi Times*. February 2019. [www.newdelhitimes.com/trafficking-in-rohingya-camps-feared-rising/](http://www.newdelhitimes.com/trafficking-in-rohingya-camps-feared-rising/).
- Nussbaum, Bruce. "Is Humanitarian Design the New Imperialism?" *Fast Company*, July 2010, [www.fastcompany.com/1661859/is-humanitarian-design-the-new-imperialism](http://www.fastcompany.com/1661859/is-humanitarian-design-the-new-imperialism).
- Ortiz, Fernando. *Cuban Counterpoint: Tobacco and Sugar*. Duke University Press, 1995.
- Otto, Ton & Rachel Charlotte Smith. "Design anthropology: A Distinct Style of Knowing." *Design anthropology: Theory and Practice*, Edited by Wendy Gunn, Ton Otto, and Rachel Charlotte Smith, Bloomsbury, 2013.
- Pagan, Brian. "So Long, User Experience... Hello, Human Experience!" *Design Humanism*, 21 July 2018, [www.brianpagan.net/2018/so-long-user-experience-hello-human-](http://www.brianpagan.net/2018/so-long-user-experience-hello-human-)

experience/.

- Papanek, Victor. *Design for the Real World*. Thames & Hudson, 2006.
- Papanek, Victor. *The Green Imperative*. Thames & Hudson, 1995.
- Poggenpohl, Sharon. "Time for Change: Building A Design Discipline." *Design Integrations*, Intellect Ltd, 2009.
- Rawls, John. *A Theory of Justice*. Harvard University Press, 1999.
- Reynolds, Emer. "The Farthest Voyager in Space." *Netflix*, [www.netflix.com/title/80204377/2017](http://www.netflix.com/title/80204377/2017).
- Sagan, Carl. "Voyager – Golden Record." *Jet Propulsion Laboratory*. NASA. Retrieved March 2019.
- Sanders, Liz and PJ Stappers. *Convivial Toolbox: Generative Research for the Front End of Design*. Lawrence King Publishing, 2013.
- Sanoff, Henry. *Design Games: Playing for Keeps with Personal and Environmental Design Decisions*. CreateSpace, 2016.
- Santos, Boaventura de Sousa. *Epistemologies of the South*. Routledge, 2014.
- Simon, Herbert. *The Sciences of the Artificial*. MIT Press, 1996.
- Simonsen, Jesper and Toni Robertson. *Routledge International Handbook of Participatory Design*. Routledge, 2013.
- Smith, Linda Tuhiwai. *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books, London, 2012.
- Suri, Jane Fulton. "Poetic Observation: What Designers Make of What They See." *Design Anthropology: Object Culture in the 21st Century*, Edited by Alison J Clarke, SpringerWienNewYork, 2011.
- Smuts, Jan. *Holism and Evolution*. MacMillan and Co., London, 1927.
- Tai, Earl. "A Case for Distributive Justice in Design." *Design Studies: A Reader*, Edited by Hazel Clark and David Brody, Bloomsbury, 2009, pp. 454-458.
- Thackara, John. *In the Bubble: Designing in a Complex World*. MIT Press, 2005.
- Tunstall, Dori. "Decolonizing Design Innovation." *Design anthropology: Theory and Practice*, Edited by Wendy Gunn, Ton Otto, and Rachel Charlotte Smith, Bloomsbury, 2013.
- Uddin, Nasir. "Facts and Fantasy of Knowledge." *Pakistan Journal of Social Science* 3 (7): 978-985, Grace Publications, 2005.
- Veblen, Thorstein. *The Theory of the Leisure Class: An Economic Study in the Evolution of Institutions*. 1899.
- Walsh, Niall Patrick. "eVolo Announces 2018 Skyscraper Competition Winners," *ArchDaily*. April 2018, [www.archdaily.com/892766/evolo-announces-2018-skyscraper-competition-winners](http://www.archdaily.com/892766/evolo-announces-2018-skyscraper-competition-winners).
- Wile, Rob. "Four Reasons Why China Has No Desire to See the World 'De-Americanized,'" *Business Insider*, October 2013.