

CULTURE SENSITIVE DESIGN

A GUIDE TO CULTURE IN PRACTICE



Annemiek van Boeijen
Yvo Zijlstra

B/SPUBLISHERS



Technological innovations have shaped a new global culture that conforms itself within self-defined frameworks of standards. From a compulsion to reproduce – that lies at the core of this culture – everything needs to be registered, indexed, and stored in databases, including everything that this very system destroys. Ethnologist Frances Densmore and Blackfoot leader Mountain Chief in 1916, listening to a cylinder recording of his traditional singing for the Library of Congress.

PREFACE

The reason this book came into being is the notion that many designers regard their field as a pragmatic practice that primarily uses technological knowledge and rational principles. Projects are approached in the most efficient and systematic manner, with the aim of achieving exploitable products and services. To guarantee a successful introduction, intended users are involved intensively in the design process. Fortunately, preconditions such as ethics and sustainability are being taken increasingly into account, but strangely enough it is our own culture that makes us blind to the meaning and importance of culture in that process.

Designers who have come up with innovative solutions and unforeseen new applications are widely praised. Subsequently, intangible terms such as 'brilliance' are assigned to them, while the difference is mainly the result of a broader cultural orientation and development that opens up a world of new opportunities, insights, and possibilities.

We first need to define the concept of culture as used in this book. Culture is a collective term that consists essentially of norms and guidelines applying to social behaviour, language use, and manners that comprise the organisation of a society. Mythology, philosophy, literature, and science form the intangible, cultural heritage of a society. Material culture includes technology, architecture, and art. Design practice focuses mainly on this material culture, but no design can be viewed in isolation from the entire cultural context.

The term culture was introduced in 45 BC by the ancient Roman orator Cicero, who in his book 'Tusculanae Disputationes' described the development of the human soul as 'cultura animi', using a metaphor related to cultivating crops for the development of this supreme philosophical ideal. The difference between that and the contemporary definition is that human perfection is now sought outside of philosophy 'by all means by which man manages to escape his original barbarism through artifice.' This definition positions our culture as an antitype to our nature, and with this positioning we automatically end up in the domain of the designed world of our human existence.

On the one hand, the comprehensiveness and elusiveness of the concept can lead designers to understand the reflex of wanting to reduce it to an overview of different design styles. On the other hand, the difficult concept can lead to the view that all existing cultural differences are exaggerated,



and that a universal design language should therefore be pursued that suits everyone in all circumstances. But both forms of reductionism deny the dangers to which any form of monoculture will lead. Cultural diversity is an evolutionary necessity because of the ambiguity and dynamics required to respond naturally and effectively to changing circumstances.

Densely populated urban areas are emerging in this time of globalisation and migration. These are cultural melting pots within which new cultures and subcultures are formed from a mix of cultural influences, technological developments, and a global communication network. These changes will lead to – as yet unknown – new definitions of social organisations and economies that will lead not only to new forms of rituals, utensils, and symbols but also to a need for other design disciplines and processes.

This book is a possible response to the need to understand these cultural processes in the context of design. It provides a lens through which to look at culture (Section 1); a design-related language in which to talk about culture (Section 2); models and methods by which to understand culture (Section 3); and examples that demonstrate the impact of design (Section 4) on culture. Along with the main text, the book is richly illustrated with images and examples, supplementary to the main text and aimed at stimulating reflection and self-study.

The depiction of ‘The Gift’ from 1921 by artist Man Ray (page 6) is a striking example. It is an amalgam of two existing practical designs that are universally recognisable: an iron and thirteen brass thumb tacks. However, a natural meaning transforms into something extremely impractical and unreliable. The image undermines the culturally coded meaning of the objects. This unsettling experience shows that even our familiar everyday items do not serve only functional and utilitarian purposes. They determine how we interpret the world around us. In the same way, with other images and examples, we hope to elicit questions: not ones that lead to unambiguous answers, however, but new questions and thoughts that ultimately will lead to a richer understanding of what culture is and what it could mean for the process of design.

Annemiek van Boeijen, Yvo Zijlstra

Some of the great thinkers whose knowledge and insights in various fields have transcended cultures and times: Laozi (604 - 507 BC), Chinese philosopher and one of the founders of Taoism. Herodotus (425/420 BC), Founder of historiography with a rare knowledge of the world and its cultures in his time. Archimedes (287-212 BC), one of the greatest mathematicians. Averroes (1126-1198) Islamic lawyer, physician, and philosopher, who is seen as the founder of secularist ideas and one of the spiritual fathers of Europe.



5	FOREWORD	97	Models and methods
9	PREFACE	98	Circuit of Culture model
13	CONTENTS	101	From Persona to Cultura
		105	Socio-cultural dimensions for design
		109	Role mapping
		111	Culture mapping with the onion model
		113	Timeline past - present - future
		115	Artefact analysis
		117	Probes for storytelling
		121	Contextmapping in cross-cultural situations
		125	Observation
		127	Interviews
		128	A smart water supply system
		130	Designing hospital beds
			DESIGNS IN CONTEXT: MEANING AND IMPACT
		135	MAKING A DIFFERENCE
		135	The medium is the message
		136	Personal computer and the Internet
		138	An iconic radio
		139	Television and mass media
		140	T-shirt
		140	Umbrella
		141	Toy bricks
		142	Pointer booklets
		142	The Walkman
		144	Anthora coffee cup
		144	Sunglasses
		145	Clap skate
		145	Housekeeping
		146	Kitchen and cooking
		147	Masks
		148	Paraskevidekatriaphobia
		149	Automobility
		150	The wasp
		151	Wheelchairs and tricycles
		151	Windmills and watermills
		152	Colour as a cultural code
		153	Money
		154	Cargo Cult
		156	REFERENCES AND FURTHER READING
		160	COLOPHON

Image: Oshiage, Sumida, Japan (Ryoji Iwata/Unsplash)

A PERSONAL REFLECTION

YOUR CULTURE



The first part of this book helps you to settle into the topic of culture-sensitive design. It explains what culture is, why it matters, what it implies, what it determines, how it affects us in all our daily activities and behaviour. Encourage yourself to reflect on your own cultural background, on the design cultures you do or do not feel part of, and on your sensitivity for cultural details. Ask yourself how cultural sensitivity can enhance your designs, knowing that everyone and everything is engaged in culture. It is a defining aspect of every design assignment that we are often unaware of. Be aware that this book is a product with a Northwest European cultural background, written and compiled in a 21st century technical context based on a long tradition of scientific education.



In China, good fortune is related to the colour red. In Chinese stock exchange graphs, for instance, red indicates trading is low, whereas green indicates the opposite. In the West, the colours mean the reverse. This could lead to some alarm if, for instance, a stock trader visiting from the East was not aware the colours meant something different in the West.

Nike's 'flaming air' logo caused outrage in parts of the Muslim world because the design that was supposed to look like flames resembled the word 'Allah'. As well as issuing an apology, Nike withdrew 38,000 pairs of the basketball shoes worldwide. The Pro-Hijab sportswear for athletes that the company launched at the 2016 Olympics was more successful.

Dishwashers were initially launched in the China market in the early 1990s but failed to become popular. Consumers thought these machines were not essential, thought installing them was troublesome, or doubted their efficiency, in contrast to the West where about 70 percent of European and American families had dishwashers only 0.5 percent of Chinese families bought one.²

cumstances. For example, a lightweight, expensive electronic device can be perceived to be cheap and unreliable in one culture, while in another it is considered advanced and luxurious.

► **Functions:** The utilitarian functions of a product – what people can do with it – can be specific for a cultural group. For example, a dishwasher for the Chinese market needs handy storage areas for bowls of different sizes. The first dishwashers, attuned only to food cultures in Europe and North America, were designed with a main storage section for plates. Functions can also be social: for instance, to communicate people's social status in the group.

► **Interactions:** People have learned to interact with their world (e.g. for reading, writing, and behaving in traffic) in a certain way, and these interactions become conventions and routines that are difficult to change. A recipe might be easily followed in countries where people are used to reading from right to left, whereas it would be difficult to follow in countries where people are accustomed to reading from left to right. Therefore, it is important to take these conventions into account. A famous example demonstrating a design concept that went wrong was the advertisement of a brand of milk powder. The narrative began with a mother and baby. In the first picture, the baby looked sad; in the second one, the baby was drinking the milk; and in the third picture, the baby was laughing and the mother looked pleased. People interpreted the story negatively, however, because they read it in the unintended direction, following the conventions they were used to (i.e. from right to left).

► **Needs:** The dishwasher example for functions fulfils the need to have clean tableware. For most cultures, this need might be the same. On a more detailed level, however, the need could be different: for example, the need for a certain storage space may be influenced by the number of people who usually have dinner together (e.g. large versus small families).

► **Values:** How people finally value a product is influenced by the cultural context in which they have learned about what is morally right and wrong, good or bad, beautiful or ugly. These are cultural values. For the dishwasher example, you could, for instance, ask people what moral considerations they have about water and energy consumption (sustainability issues); about the value of doing the dishes together as a form of social cohesion; or about other shared values that influence people's needs and consequently lead to other functions, properties, and forms.

Obviously, companies are keen to avoid cultural mismatches. This is not only because their products will not be purchased but – even more important – also because their cultural biases lead to negative criticism that is spelled out in the media, and results in damage to their public image. An example is Chanel's very expensive black wood and resin boomerang, which was heavily criticised by Australian aboriginals. They were severely offended that an icon representing their deeply rooted, millennia-old cultural heritage had been appropriated and was being sold as a luxury item at an exorbitant price. Another example is Nike shoes with a graphic that was similar to the way the word Allah is written in Arabic. Therefore, to a certain extent your design needs to be attuned to the targeted culture(s) to ensure that it will be accepted or – even more crucial – to ensure that it will be *loved*.

Change a culture - To change a culture means having the intention to change a current socio-cultural value by means of a design. Products influence people's lives – if they let them – and it is a designer's challenge – maybe even *responsibility* – to determine how to achieve this. Products offer new practical functions, such as mobile communication or a fast and comfortable way to get from A to B, but they also mediate in how we deal with each other in our social interactions. Products communicate who we are, our values, what we consider to be important, and our social status. Your design may address values that are different from those that are generally accepted by the cultur-



The US\$121,280 Caviar iPhone 11 Pro Solarius Zenith is a design accessory that 'only the worthy' can hold in their hands. As William James wrote in 1890: 'A man's self is the sum total of all that he can call his, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank-account.'

to commute; in the meantime, however, they also challenge people's socio-cultural values, such as social status in the group, individual freedom, and perception of time. The designer's solution may address values that are different from those that are not yet acceptable to the cultural group, but which over time will change people's lives. It is important to take into consideration how a design can change these patterns as well as whether or not that is the desired outcome.

How can we view culture?

As we have already seen, culture can be studied from different perspectives in different disciplines. This section proposes a lens through which a designer can look at culture. With this proposed lens, we begin with relationships between people, and with how they interact with each other in a specific group and context. The starting point is that the designed world – products and services or other manifestations of our designed world – are mediators in these relationships.

Values and practices People share certain values. These values can only be observed and experienced by means of what people say and do, and in relation to the things that surround them. We call the expressions of these values *practices*.

In certain past East Asian cultures, pearls and jade were major status symbols, reserved exclusively for royalty. Similar legal exclusions applied to the toga and its variants in ancient Rome, and to cotton in the Aztec Empire. Special colours such as imperial yellow (in China) or royal purple (in ancient Rome) were reserved for royalty, with severe penalties for unauthorised displays.

Values: a difficult term that needs explanation - To begin with, let us have a look at the reasoning model of Norbert Roozenburg and Johannes Eekels, an abstract representation of how designers reason along the line of values, needs, functions, and properties towards their final form, and vice versa (van Boeijen, Daalhuizen, Zijlstra (Eds.), 2020). The arrows indicate causal relations in *analysing* from *form* to *values* and *synthesising*, which goes in the opposite direction, from *value* to *form*. This model helps to indicate where and how cultural values are linked to aspects that need to be considered. The focus here is on *cultural* values. In the multidisciplinary context in which designers work, it can be confusing to talk about values, because the term is used differently across disciplines. While *value* can be understood as the underlying reason for our practices (including things), the term *values* can be used to refer to the moral evaluation of our practices (are they considered good or bad, right or wrong). Prasad Boradkar gives a useful overview of different value types. It shows a list of these value types with an example of how a bicycle is evaluated from, among others, a utilitarian, an economic, and an environmental perspective. (Prasad Boradkar, 2010) Of course, you can only evaluate the value or cultural value and meaning of this bicycle if you know the specific context: when, where, and in which situation the bicycle is used. Therefore, it is important to know the *context* when talking about values.

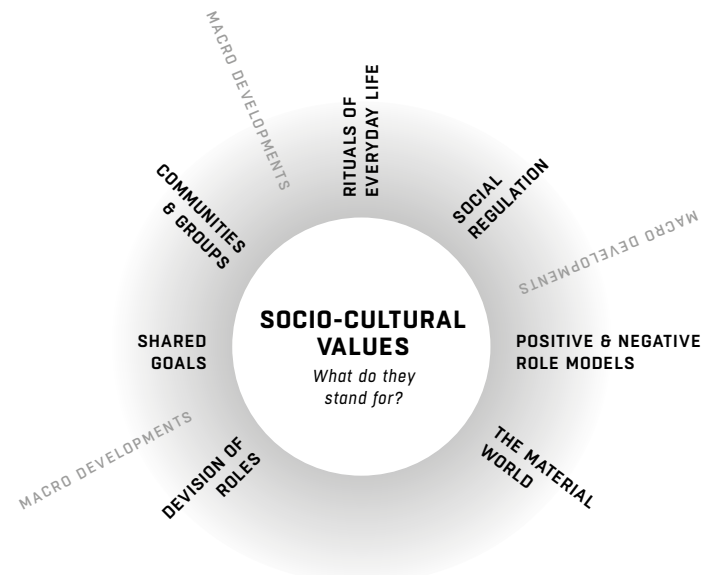
Take the example of the syringe. What situation or context do you imagine when looking at the syringe? What is the value of this product? The mother and child may illustrate the context that you imagined. But the value of the syringe changes completely when pictured as a part of the world of heroin addicts. This awareness of different meanings in different contexts is useful for design, because rethinking them can help to align a product with various possible contexts and/or lead to new product ideas, such as the low-cost, single-use syringe designed to prevent infections. In my work, I often see designers starting from a kind of global perspective with design briefs that are very broadly formulated, such as 'designing for Western European women'. This makes sense if the company is aiming for large-scale production, but from a design perspective it is not always fruitful. A more specific understanding of the different contexts can lead to interesting and meaningful ideas.

MODELS AND METHODS

DESIGNING WITH CULTURE



This section introduces you to certain models and methods that can be used to examine and to design for culture. While applying them, you will become increasingly familiar with their possibilities. A method is simply a means and not a goal in itself. Therefore, select and fine-tune the methods according to your own preferences and projects; see also the introduction section in the Delft Design Guide, and its overview of perspectives, approaches, models, and methods for designing. (van Boeijen et al. 2020, 2nd ed.)



Based on personal knowledge, experience, and traditional examples, this outdoor food vendor in China has carefully designed and built his mobile kitchen on wheels. It may seem improvised and primitive, but everything has a clear function, and each detail has been carefully crafted and optimised, based on what the vendor needs in order to prepare food that fulfils his clients' wishes and expectations, and fit in perfectly with the socio-cultural values of the Chinese street-food culture.



TIPS AND CONCERNS

The nine themes can be used entirely or selectively, depending upon the topic and the scope of the project.

Customise your format for data analysis or a checklist.

Contextual macro factors can provide a broader picture of the cultural context and the user information. These can include demographics, the economy, the infrastructure, and the composition of the population, geographical characteristics, or politics.

Emphasise the insights and inspiration rather than the validation.

People are more likely to offer full and informative feedback in return when they know that the designers are not local but are trying to understand their culture.

Cultura cannot be used as an independent evaluation tool for your products or services. You still need real people in the targeted context in order to test and evaluate your design.

► **The material world:** is composed of artefacts (products, or things that have been designed). These artefacts, also called material culture, not only have utilitarian functions but also carry particular symbolic meanings. They have a social and cultural significance that pertains to a specific group of people or to a specific time and place.

Possible questions: What artefacts (products, services, or other things that have been designed) do people typically have or use in the intended context? What symbolic meaning or social significance do these artefacts have in people's everyday lives?

► **Community & groups:** is a group of people who have a shared concern or who wish to reach a goal, and interact regularly to do so. The community distinguishes who or what does or does not belong to the group. However, the scope of the community varies with different design projects. Designers need to decide how to set the border for each project.

Possible questions: How is the community defined for the project (for example, who, what where)? To which community do the end users belong? Who belongs to a specific community, and who does not?

► **Division of roles:** describes how duties are distributed among community members: for example, what the activities are and how they are distributed according to people's position in the hierarchy; whether it is a collective or individual activity; and division of roles by gender.

Possible questions: What roles do people have in the intended community? How are duties distributed among community members? What characterises the division of roles (e.g. gender differences, individual or collective interests, or hierarchy)?

► **Rituals in everyday lives:** are sequences of collective activities aimed at reaching desired ends, and that are considered to be socially essential. This also includes daily routines, special events, and activities undertaken in people's spare time.

Possible questions: What sequences of activities do people participate in (when, where, and how)? What daily routines do individuals follow (when, where, and how)? What special events do people share (when, where, and how)?

► **Knowing the rules:** consist of written and unwritten social agreements created by people during shared practices in order to achieve a goal. They deal with people's social relationships, and are continuously being formed and changed, reflecting the nature of the culture.

Possible questions: What rules do people have when dealing with social relationships? What explicit (spoken, written) and/or more hidden (unspoken, unwritten) rules do people practice?

► **Role models:** represent a person (perhaps a superhero or celebrity) who is highly esteemed in the community, and who can also serve as a role model. Of course, the opposite can also exist – a negative model (devil, an enemy or anti-hero). It is even possible for a person to be seen by different parties as both hero and antihero.

Possible questions: Who is highly esteemed in the community: for example, super hero or celebrity? Why? Who is held in low esteem in the community: for example, an enemy or an anti-hero? Why?

► **Goals of end users:** are the short- and long-term goals that users want to achieve, or personal intentions that are meaningful to them or to their community (in a specific context).

Possible questions: What short-term goals do people have (individually or as a community)? What long-term goals do people want to achieve (individually or as a community)?

MEANING AND IMPACT

DESIGNS IN CONTEXT



This section discusses a collection of designs from the real world. The aim is to show with a variety of topics how products, under the influence of developments in societies, play their role in cultural processes. Together, they provide a picture of our designed world and how it acquires meaning in different contexts.



The traditional gathering around the table for the family dinner is disappearing. Meanwhile, in big cities, take-away food or delivery meals are on the rise, bringing all sorts of food from food cultures around the world. This rapidly developing new economy is having a big impact on our relationship with food: i.e. what we eat, how we eat, where we eat, and when we eat.



Computer software for food delivery helps consumers to order from online menus, pay online, determine the most efficient routes for carriers, track order and delivery times, and so on. Customers use satellite navigation tracking over the Internet for real-time monitoring of delivery vehicles. The design for packaging and transport containers is a big issue, however, also as regards the environment.

derive her identity from technologically advanced household products, the washing machine, like other household appliances, gained in popularity. In the 50 years that followed, the washing machine conquered the world, during which period its design hardly changed. And though the use of new materials in the fashion industry together with environmental legislation have made the machine 'smarter', it remains a white, noisy, water-hungry rectangular box.

The cultural impact of the washing machine and other household innovations – such as vacuum cleaners, microwaves, and dishwashers – on family life has turned out to be far more dramatic. Along with contraceptives, these machines have probably had the most influence on women's emancipation. Women became more independent when most housekeeping tasks could be transferred to machines, and modern family life became increasingly detached and individualistic.

Kitchen and cooking For centuries, local situations have determined how we grow and process food (literally cultivate); what we eat; how we eat, and with whom, when, where, and in what order. The geographical environment and local conditions have determined our food options, habits, and social norms. As a result of globalisation, next to technological and economic developments, what we eat is now linked increasingly less to place and time. Food cultures meet and change, including the significance of the kitchen and its appliances. From separated spaces in which women played a central role, kitchens were transformed into a social space where family rituals provided coherence in relationships and enhanced social values. The introduction of the microwave and dishwasher removed the need to eat together at a fixed time. Microwave meals made their appearance, and sitting in front of the television with a plate on one's lap replaced sitting together for a meal around the table.

In high economic societies, cooking is no longer a basic need but a way of expressing oneself. The kitchen has become a status symbol, hyped through marketing that promotes professional kitchen islands and tools and gadgets to the consumer market, and through cooking shows that flourish on television and the Internet. In high-density megacities, where people live in very small spaces and food services are cheap



From 1630 onwards, plague doctors wore protective clothing and special masks, which were believed to be sufficiently protective. As our global metropolises become ever more congested and polluted, in addition to raincoats and helmets, face masks may become a regular part of our outdoor protective wear, with new cultural features inevitably being added.

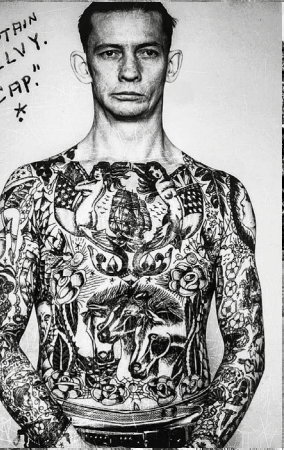


and widely available, the kitchen may even be non-existent or reduced to being only a shelf or counter large enough for a microwave. There are, however, still many people living in rural areas, who cook with a stove and spend a substantial part of the day collecting wood. There is a need for solutions that allow more efficient combustion with emissions that are less toxic. Outsiders have designed many alternatives, but implementation is difficult. The dependence on local resources and situations requires designs that cater to the existing local conditions and food culture.

The Venice carnival is famous for its amazing masks, although the original reason for wearing these face coverings remains unknown. Some argue that covering the face in public was a response to Venice's rigid class hierarchies. During Carnival, sumptuary laws were suspended, and people could dress as they liked, avoiding the rules set down in law for professions and social classes. There have been several periods when wearing masks in Venice was prohibited.

Masks The French word *masque* means 'covering to hide or guard the face'; the Catalan *mascarar* means 'blackening the face'; the Mediaeval Latin *masca* refers to 'nightmare'. Either way, a mask has many manifestations and meanings in different cultures. And its functions are many: to punish; to hide or enhance one's identity; to change identity or even to help a person cross between the worlds of the living and the dead; to protect against poisonous gases in a fire or in war situations; to protect against bee stings; and – as used currently by doctors and personnel in hospitals – to protect against viruses. The mask was used to effect by 'plague masters' or 'plague doctors', whose task was to isolate and treat plague victims. To protect themselves, the doctors wore protective clothing and the famous mask with its beak-like nose also filled with herbs and spices to purify the air and to block the stench of illness and death. The long nose unintentionally also helped maintain an added distance from infectious patients. But the mask's main effect was that it frightened people into keeping their distance from the masked doctor, who symbolised the feared and deadly disease. Today people wearing face masks in public often carry the same stigma.

Because of heavily polluted metropolises and experiences with rapidly spreading viruses, for Chinese people it is normal and socially acceptable to wear a face mask in public. In Japan, successive events – including a massive influenza pandemic in which millions of people died, a volcanic eruption, and rapidly increasing industrialisation in the 20th century – forced the population to cover their face with scarves, veils, and masks as a protective measure. The reason for this easy acceptance might



Societies worldwide are increasingly interconnected through trade, migration, education, and digitisation. This has resulted in a profound new complexity of cultural groups. Consequently, designers are confronted with the challenge of gaining a clear understanding of this cultural diversity.

Culture is a complex phenomenon defined by an on-going process of shifts in human interactions and experiences. In addition to the functional, technical, and economic requirements, it is primarily culture that defines how any designed object and service will perform and prove itself: a process that largely takes place outside the domain and control of the designer.

This book provides an overview of theory as well as practical models and methods, aimed to motivate and inspire design students, practitioners, and educators; to get in touch with different cultural values, customs, and symbols; to avoid mistakes that may be obstructive for certain groups of people; to enable cross-cultural cooperation; to learn more about the diverse and complex layers of culture that define who we are, how we think, how we imagine, and how we create; to open up the design space, thereby creating a tremendous source of new ideas.

Richly illustrated by examples of real-life situations, the book provides everything necessary to generate optimal circumstances for the best design solutions to emerge.

DESIGNERS can use it to fine-tune their cultural lens, to stage their design processes, and as a source of inspiration.

DESIGN EDUCATORS can use it as a reference manual to support students in their learning process.

EVERYONE INTERESTED IN THE TOPIC can use it to discover layers of what constitutes culture.

