# **118 Theories** of Design[ing]

Edited by

Paul A. Rodgers University of Strathclyde, UK

**Craig Bremner** Charles Sturt University, Australia



Series in Art VERNON PRESS

Copyright © 2021 by the authors.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of Vernon Art and Science Inc.

www.vernonpress.com

In the Americas: Vernon Press 1000 N West Street, Suite 1200 Wilmington, Delaware, 19801 United States In the rest of the world: Vernon Press C/Sancti Espiritu 17, Malaga, 29006 Spain

Series in Art Library of Congress Control Number: 2020947495 ISBN: 978-1-62273-962-2

Product and company names mentioned in this work are the trademarks of their respective owners. While every care has been taken in preparing this work, neither the authors nor Vernon Art and Science Inc. may be held responsible for any loss or damage caused or alleged to be caused directly or indirectly by the information contained in it.

Every effort has been made to trace all copyright holders, but if any have been inadvertently overlooked the publisher will be pleased to include any necessary credits in any subsequent reprint or edition.

# Contents 118 Theories

About the Authors	13
Foreword	17
Rachel Cooper	
Introduction	21
Paul Rodgers & Craig Bremner	
118 Theories of Design[ing]	31
Paul Rodgers & Craig Bremner	
#01 A Luxurious Theory of Design[ing]	47
Paul Rodgers & Craig Bremner	
#02 A Duplicate Theory of Design[ing]	49
Paul Rodgers & Craig Bremner	
#03 An Affordable Theory of Design[ing]	51
Paul Rodgers & Craig Bremner	
#04 A Possible Theory of Design[ing]	53
Paul Rodgers & Craig Bremner	
#05 A Disruptive Theory of Design[ing]	55
Paul Rodgers & Craig Bremner	
#06 An Undisciplined Theory of Design[ing]	57
Paul Rodgers & Craig Bremner	
#07 A Future Theory of Design[ing]	59
Paul Rodgers & Craig Bremner	
#08 A Cheap Theory of Design[ing]	61
Paul Rodgers & Craig Bremner	
#09 An Imperfect Theory of Design[ing]	63
Paul Rodgers & Craig Bremner	
#10 A Humble Theory of Design[ing]	65
Paul Rodgers & Craig Bremner	
#11 A Derived Theory of Design[ing]	67
Paul Rodgers & Craig Bremner	
#12 A Cosmological Theory of Design[ing]	69
Paul Rodgers & Craig Bremner	

#13 An Ultimate Theory of Design[ing]	71
Craig Bremner & Paul Rodgers	
#14 A Utopian Theory of Design[ing]	73
Craig Bremner & Paul Rodgers	
#15 A Rural Theory of Design[ing]	75
Craig Bremner & Paul Rodgers	
#16 A Romantic Theory of Design[ing]	77
Craig Bremner & Paul Rodgers	
#17 A Radical Theory of Design[ing]	79
Craig Bremner & Paul Rodgers	
#18 A Transitive Theory of Design[ing]	81
Paul Rodgers & Craig Bremner	
#19 An Unknown Theory of Design[ing]	83
Craig Bremner & Paul Rodgers	
#20 An Automated Theory of Design[ing]	85
Craig Bremner & Paul Rodgers	
#21 A Repairable Theory of Design[ing]	87
Craig Bremner & Paul Rodgers	
#22 A Business Theory of Design[ing]	89
Paul Rodgers & Craig Bremner	
#23 A Responsive Theory of Design[ing]	91
Craig Bremner & Paul Rodgers	
#24 A Sharing Theory of Design[ing]	93
Craig Bremner & Paul Rodgers	
#25 A Climatic Theory of Design[ing]	95
Craig Bremner & Paul Rodgers	
#26 A Misfit Theory of Design[ing]	97
Paul Rodgers & Craig Bremner	
#27 An Anonymous Theory of Design[ing]	99
Paul Rodgers & Craig Bremner	
#28 A Comfortable Theory of Design[ing]	101
Paul Rodgers & Craig Bremner	
#29 A Paradoxical Theory of Design[ing]	103
Paul Rodgers & Craig Bremner	
#30 A Matriarchal Theory of Design[ing]	105
Craig Bremner & Paul Rodgers	

#31 A Dangerous Theory of Design[ing]	107
Craig Bremner & Paul Rodgers	
#32 A Jealous Theory of Design[ing]	109
Paul Rodgers & Craig Bremner	
#33 A Mongrel Theory of Design[ing]	111
Paul Rodgers & Craig Bremner	
#34 A Tired Theory of Design[ing]	113
Paul Rodgers & Craig Bremner	
#35 A Winning Theory of Design[ing]	115
Craig Bremner & Paul Rodgers	
#36 A Zombie Theory of Design[ing]	117
Craig Bremner & Paul Rodgers	
#37 A Swatchification Theory of Design[ing]	119
Paul Rodgers & Craig Bremner	
#38 An Anti-Design Theory of Design[ing]	121
Paul Rodgers & Craig Bremner	
#39 A False Theory of Design[ing]	123
Craig Bremner & Paul Rodgers	
#40 A Sentimental Theory of Design[ing]	125
Craig Bremner & Paul Rodgers	
#41 A Fantastic Theory of Design[ing]	127
Craig Bremner & Paul Rodgers	
#42 A Plastic Theory of Design[ing]	129
Craig Bremner & Paul Rodgers	
#43 A Green Theory of Design[ing]	131
Craig Bremner & Paul Rodgers	
#44 A Dark Theory of Design[ing]	133
Craig Bremner & Paul Rodgers	
#45 A Grey Theory of Design[ing]	135
Craig Bremner & Paul Rodgers	
#46 A FabLab Theory of Design[ing]	137
Paul Rodgers & Craig Bremner	
#47 A Barbaric Theory of Design[ing]	139
Craig Bremner & Paul Rodgers	
#48 An Exaggerated Theory of Design[ing]	141
Craig Bremner & Paul Rodgers	

#49 A Pornographic Theory of Design[ing]	143
Craig Bremner & Paul Rodgers	
#50 A Curious Theory of Design[ing]	145
Constantin Boym	
#51 A Learning Theory of Design[ing]	147
Maya Dvash	
#52 A Theoretical Theory of Design[ing]	149
Chiara Alessi	
#53 A Practical Theory of Design[ing]	151
Chiara Alessi	
#54 Against a Theory of Design[ing]	153
Chiara Alessi	
#55 A Data Theory of Design[ing]	155
Will Holman	
#56 A Justified Theory of Design[ing]	157
Clive Dilnot	
#57 A Mature Theory of Design[ing]	159
Clive Dilnot	
#58 A Political Theory of Design[ing]	161
Clive Dilnot	
#59 A Circumstantial Theory of Design[ing]	163
Clive Dilnot	
#60 A Power Theory of Design[ing]	165
Marco Petroni	
#61 An Educational Theory of Design[ing]	167
Marco Petroni	
#62 An Evolutionary Theory of Design[ing]	169
Mark Roxburgh	
#63 An Uncertain Theory of Design[ing]	171
Mark Roxburgh	
#64 A Pessimistic Theory of Design[ing]	173
Mark Roxburgh	
#65 A Thoughtless Theory of Design[ing]	175
Mark Roxburgh	
#66 An Anthropocentric Theory of Design[ing]	177
Mark Roxburgh	

#67 An Anecdotal Theory of Design[ing]	
(or a theory about design theories)	179
Mark Roxburgh	
#68 A Jugaad Theory of Design[ing]	181
Saurabh Tewari	
#69 A Gandhian Theory of Design[ing]	183
Saurabh Tewari	
#70 A Rasa Theory of Design[ing]	185
Saurabh Tewari	
#71 A Pluralistically Confusing Theory of Design[ing]	187
Paul Rodgers & Craig Bremner	
#72 An Anti-Design Thinking Theory of Design[ing]	189
Jonathan Ventura & Dina Shahar	
#73 A Bipolar Theory of Design[ing]	191
Jonathan Ventura & Dina Shahar	
#74 A Proud Theory of Design[ing]	193
Jonathan Ventura & Dina Shahar	
#75 A Studio-Based Theory of Design[ing]	195
Jonathan Ventura & Dina Shahar	
#76 An Inclusive Theory of Design[ing]	197
Jonathan Ventura & Dina Shahar	
#77 An Inflation of Design Theory of Design[ing]	199
Jonathan Ventura & Dina Shahar	
#78 An Idealist Theory of Design[ing]	201
Jonathan Ventura & Dina Shahar	
#79 An Irrelevant Theory of Design[ing]	203
Joyce Yee	
#80 An Everything and Nothing Theory of Design[ing]	205
Mashal Khan	207
#81 An Immersive Theory of Design[ing]	207
James Fathers	200
#82 A Failing Forward Theory of Design[ing]	209
James Fathers	211
#83 A Tuning Theory of Design[ing] Heather Wiltse	211
#84 A Ludic Theory of Design[ing]	213
Emmanuel Tsekleves	213

#85 A Speculative Theory of Design[ing]	215
Emmanuel Tsekleves	
#86 A Global Health Theory of Design[ing]	217
Emmanuel Tsekleves	
#87 A Constructivist Theory of Design[ing]	219
Mark Roxburgh	
#88 A Caring Theory of Design[ing]	221
Jen Archer-Martin	
#89 A More-than-Human(ist) Theory of Design[ing]	223
Jen Archer-Martin	
#90 A Non-Cartesian Theory of Design[ing]	225
Peter Lloyd Jones	
#91 An Early Learning Theory of Design[ing]	227
Peter Lloyd Jones	
#92 A Scientific Theory of Design[ing]	229
Peter Lloyd Jones	
#93 A Catastrophic Theory of Design[ing]	231
Peter Lloyd Jones	
#94 A Disempowering Theory of Design[ing]	233
Heather Wiltse	
#95 A Fictional Theory of Design[ing]	235
Craig Bremner	
#96 An Excessive Theory of Design[ing]	237
Mark Roxburgh	
#97 A Management Theory of Design[ing]	239
Rachel Cooper	
#98 A Design Thinking Theory of Design[ing]	241
Rachel Cooper	
#99 A Messy Theory of Design[ing]	243
Stephanie Carleklev	
#100 A Careful Theory of Design[ing]	245
Stephanie Carleklev	
#101 An Agile Theory of Design[ing]	247
Stephanie Carleklev	
#102 A Ludic Theory of Design[ing]	249
Cathy Treadaway	

#103 A SMART Theory of Design[ing]	251
Delfina Fantini van Ditmar	
#104 A 1.5°C Theory of Design[ing]	253
Delfina Fantini van Ditmar	
#105 A Cultural Generational Communal Iterative Generative	
Collaborative Relational Theory of Design[ing]	255
Danièle Hromek (Budawang/Yuin) & Jacqueline Gothe	
#106 A Plurality Theory of Design[ing]	257
Nelly Ben Hayoun	
#107 A Designer-as-Mythologist Theory of Design[ing]	259
Nelly Ben Hayoun	
#108 An Ontological Theory of Design[ing]	261
Arturo Escobar	
#109 A Materials' History Theory of Design[ing]	263
Arturo Escobar	
#110 A Communal Theory of Design[ing]	265
Arturo Escobar	
#111 An Autonomous Theory of Design[ing]	267
Arturo Escobar	
#112 A Pluriversal Theory of Design[ing]	269
Arturo Escobar	
#113 A Post-Economic Theory of Design[ing]	271
Arturo Escobar	
#114 An Of the South(s) Theory of Design[ing]	273
Alfredo Gutiérrez-Borrero	
#115 An Indigenous Theory of Design[ing]	275
Alfredo Gutiérrez-Borrero	
#116 A Declassified Theory of Design[ing]	277
Alfredo Gutiérrez-Borrero	
#117 A Gendered Theory of Design[ing]	279
Elaine Igoe	
#118 A Better Theory of Design[ing]	281
Craig Bremner & Paul Rodgers	
Acknowledgements	283
Contributor Biographies	285
Index	295

### About the Authors

Paul Rodgers is Professor of Design in the Department of Design, Manufacturing and Engineering Management (DMEM) at the University of Strathclyde, UK. He is also the Arts and Humanities Research Council Leadership Fellow for Design in the UK (2017 - 2020). He is a co-founder of the Design Disruption Group, with Giovanni Innella, Freddie Yauner and Andy Tennant, who strive for positive change in health and social care and elsewhere.

Craig Bremner is Professor of Design at Charles Sturt University, Australia. His research deals with developing methods to discover and to value why 'not-knowing' is an essential beginning point of design practice.

Paul is from Glasgow, Scotland, and Craig is from Sydney, Australia. We met at Northumbria University where, on the same day in November 2009, we started working for the School of Design. In the new, large openplan office in the new, large Design building, we were allocated the last two vacant seats, side by side, in the farthest corner of the office. Even though Craig had worked in Glasgow for several years and Paul had contemplated a very good job offer in Sydney, we hadn't met until this moment. And a bit like schoolboys seated together randomly in a very traditional Design School, we quickly discovered we had a very well informed, but mutinous, take on Design.

With that shared knowledge and attitude, we began our collaboration with a paper for a conference on the PhD in Design, where we urged the candidate to be undisciplined and irresponsible. Soon after, we wrote our first Charter - "Design School: Undisciplined and Irresponsible" - which we have performed several times at conferences, often by invitation. To us, Design is now so affected that sometimes we cannot resist writing a response to calls that simply invite mutiny. More often we send each other ideas or challenges to fracture the commonplace Design promises. When an idea takes hold, we write and then search for a publisher. We get a bit peeved when what we write is rejected by orthodox reviewers who want affirmation, not critique. Despite this reaction, everything we write finds its way into publication. We also write in relay from different countries and time zones - one writes until we have had enough and sends it to the other and so on - which means that often one works while the other one sleeps. If the morning email has an attachment, then we have to do something. If not, we take it easy. Working together this way appears to us to be inexhaustible and has produced a lot of publications over the years (see the list below).

More recently, we have embarked on a series of international workshops that focus on the relationship between the act of Design and the gesture of Care. Something that is very dear to us. At the first of these workshops, we produced our second Charter - "The Lancaster Care Charter" - a format we like. Our main challenge is to always remain challenging.

#### Books

Design School: After Boundaries and Disciplines Design School: The Future of the Project Does Design Care...?! Head-to-Head Debates An Illustrated A to Z for the Design of Care Does Design Care...? An International Workshop of Design Thought and Action

#### Charters

The Lancaster Care Charter Design School: Undisciplined and Irresponsible

#### **Book Chapters**

The Design of Nothing: A Working Philosophy

#### Journal Papers

A is for Anthropocene: An A–Z of Design Ecology Paradoxes in Design Thinking The Concept of the Design Discipline An A to Z of Contemporary Design Exhausting Discipline: Undisciplined and Irresponsible Design Design Without Discipline Alterplinarity - "Alternative Disciplinarity

#### **Conference Papers**

Design School: Undisciplined and Irresponsible Design School: Design Education in the Age of Digital Capital Alterplinarity: The Undisciplined Doctorate and the Irresponsible Candidate

### Foreword

#### Rachel Cooper

Paul Rodgers and Craig Bremner will explain that their collaboration and writing in design is led by rejecting orthodoxy. They write together to present "*ideas or challenges to fracture the commonplace that Design routinely promises*". So, one might ask why a book of 118 Theories of Design(ing)? As both a practising designer and now a design academic, I have always held a certain antipathy towards theory and theoreticians. And, to some extent, like the author and commentator Will Self (2019) have been "Against Theory", because in his words theories (especially in the Arts, Humanities and Social Sciences ) are "…*fences of impenetrable prose designed to keep people out…*" Actually, building on what Max Weber (1978) described as social closure and the tendency of groups to restrict entry to outsiders by building barriers, Design is not (should not) be a profession or a discipline built on that premise.

This is not a book designed to keep people out, nor one which aims to build a grand theory upon which we can predict the future, such as Charles Darwin's Theory of Evolution by Natural Selection or Albert Einstein's Theory of General Relativity. The basis for this work is that "...all design practice (designing) is embedded in discourse" and thus, these 118 Theories of Design(ing) are, in effect, a proposition, a challenge to orthodoxy. The first challenge is that the contributions are not long evidence-based arguments set up in an abstract language theory. They are short, philosophical, sometimes flippant, argumentative and challenging statements. 118 Theories of Design(ing) is written not only by Paul Rodgers and Craig Bremner, but by many contemporaries working in design that they have happened upon during this compilation journey.

The second challenge is that, unlike science, where theories are created to explain the past or the present and predict the future, the approach to theories of design(ing) taken here, is one that helps us to contest the future, and our fixation on designing the possible and to consider how we might give form to the impossible. Here as Paul Rodgers and Craig Bremner state: "...*theory becomes the de facto critique of practice*...", and therefore theory here is the beginning and not the end.

On this basis, if we consider one of the entries - #92 A Scientific Theory of Design[ing] in which Peter Lloyd Jones states that "...*if design exists in the future, then neither the current spaces used to focus it nor the names used to frame it currently exist either. By way of extension, if we accept that design is a nameless, non-discipline that exists in the future within an imagined, but currently unknowable space, where it is made real, then it is plausible to speculate upon a theory of design that is boundless and pre-disciplinary.*" Perhaps so and indeed we are presented with the beginning not the end, but with 118 Theories of Design(ing) to be used to spread the imaginary of design(ing) and enable the boundless, unrelenting combination of theory and practice to work with confidence in the unknowable space that is the future.

As I write this foreword, we are in week four of the COVID-19 lockdown in the UK. Never in my lifetime has there been such a drastic social and economic event. Most designers working today have not experienced an event that has such local and global impact; community connection, but increased poverty, lower energy emissions, improved climate but smaller economies. We are undergoing a global reset, corporate and individual reflection on how to survive, what is survival and what it means to be human. Tomorrow, next month, next year are unknowns. For many, we hope we don't go back to the 'past normal', but we find a 'new normal' or an 'improved normal' for the sake of the planet and it's inhabitants. Reflection, observation, discourse, critique, challenging everything and taking action is still the baseline for design(ing). Let's not use the theories here "...*as a hose to water the scholarly allotment...*" (Self, 2019) but to design the impossible and the unthinkable to create a better world post-Coronavirus.

#### References

Will Self, *A Point of View: Against Theory*, BBC podcast 16 August 2019. Max Weber, *Economy and Society: An Outline of Interpretive Sociology*, Edited by Guenther Roth and Claus Wittich, Berkeley: University of California Press, 1978.

### Introduction

#### Paul Rodgers & Craig Bremner

#### "The time of theory is today." Slavoj Žižek

If, according to the French poet Paul Valéry, a philosophy should be portable, then through this book, we illustrate how a theory should be palpable - perceptible to the senses but impractical to systemization. However, we did apply a system to its composition. Each theory is around 140 words (more or less) and that was a recoil from our initial challenge of 140 characters - the initial length of a tweet; once a benign and sweet description of birdsong but now so toxic we felt it was unseemly. We might give the impression we have also exchanged chirping for carping, but so little of what is 'in theory' possible is made actual by design that clearly, something is missing. This book feels the loss of the dream of design and compensates by making a contribution to the sizable account of what is missing.

Foucault has an interesting notion about the writing of books. He says "*I don't write a book so that it will be the final word; I write a book so that other books are possible, not necessarily written by me.*" (O'Farrell, 2005: 9). Paraphrasing Foucault, we might be tempted to claim that the aim of this book is to once again make possible the future scenarios so essential for the existence of design(ing). But we have also written this book to make clear we are not concerned with the future nor the scenario, but the possibility of the possible – that design is possible. This book isn't entirely written by us. We have assembled it to also make possible an obsolete meaning of theory; to illustrate a mental view of design(ing); to expand the 'mental space' or more fashionably to spread the 'imaginary' of design(ing).

# The concepts, insights and arguments behind 118 Theories of Design[ing]

Why do we need theory? Where do theories come from? Is the parable "...*design theorists [as opposed to design practitioners] are those that cannot design*" justified? Are the only design theories worthy of consideration those that are rooted in practice? What can one hope to get from design theory? These questions and others are laid out in Gui Bonsiepe's wonderful book

"Interface – An Approach to Design". We cannot, of course, expect there to be a single clear answer to these questions.

Bonsiepe, however, articulates one solid argument in favour of design theory. That is, that all design practice (designing) is embedded in discourse. For Bonsiepe, theory and practice have always been closely interlinked. Moreover, design discourse exists amongst universes of linguistic variations that are all part of an indispensable part of practice. A world of design that focuses solely on practice and neglects theory endangers the act of designing to the shadows, "...which sharply contradicts the cultural and economic importance of design as a central domain of Modernity." (Bonsiepe, 1999: 22)

We contend that design theory is important to the global culture of design but given its relative disregard, the concept of this book is to give theory a chance. Like the histories of design, design(ing) doesn't seem to see much future in the past, and theories (or speculations) don't seem to have much currency even while design(ing) seems continually intoxicated with possible futures. In this book we show how design(ing) is constantly rubbing against theories (and vice versa) because for every possible future there is a future impossible – for the irresistible promise of what-mightbecome there is increasingly the paradox of what-might-not-become.

When Terry Eagleton (2018) states in typically enigmatic style "...the only image of the future is the failure of the present" he exposes an inconsistency in design. A design fundamental has always been its ability to discern between the possible (what-might-become) and the actual (what-might-not-become). Design is nourished on the belief that almost anything is possible. But the infinite scope of the possible is limited only by the materialisation of the actual. Because of its addiction to the infinitely possible, the problem for design is almost anything is possible except the actual. This problem exposes a tension between theory and practice that seems to lie in wanting to comprehend a paradox that has vexed both (but mostly practice); namely, resolving the difference between what design does and what design only dreams of doing. This paradox can only find resolution in texts that are mostly disparagingly labelled theory.

The difference between a desirable and an actual state of affairs adds another dimension to theory; that of critique where the tension between theory and practice takes on a new complexion. In the absence of a platform of critique of design, theory becomes the *de facto* critique of practice. Under the banner of critique theory thus becomes a beginning, not an end. In this scenario theory functions so you can read the operating instructions.

If design is about a possible future (or future possible) does theory come before or after all the attempts by design at putting this possibility into practice – i.e. is theory a history or a speculation? By definition theory is a speculation that habit tells us is derived from contemplating the world-asfound. But Flusser (1988: 17) maintains that "...theory may be understood not as the contemplation of form but of the shaping of it." In that sense, design theory is not knowledge gained from the act of designing whatmight-become. Neither is theory a service to practice providing insights into designing. Following Flusser's train of thought and contrary to the habitual use of theory as a way of explaining why the world looks like it looks (Foucault's "what do does"), theory is a projection giving shape to the world. Flusser's astute inversion of the role of theory is of critical importance for designing because having exceeded the carry capacity of the world 'what-might-become' has become 'what-might-not-become'. Design is having to give form to the impossible - which for design is paradoxical (Rodgers, Innella and Bremner, 2017).

#### Origins

The word theory has its roots in the late 16th-century Greek term *theoria* meaning 'contemplation' or 'speculation' – two words that frequently feature in contemporary design discourse. Theory, the dictionary tells us, is "*a supposition or a system of ideas intended to explain something*" (e.g. Darwin's theory of evolution). In this book of 118 theories of design[ing], however, we do not seek to explain anything. Rather we ask the reader to read the 118 theories of design[ing], reflect upon them and question everything... We chose to write our theories using a limited word count in order to solicit a large number of theories, all of which give the reader ample room to explore the ideas, source their genesis, and expand them as seems to fit the thoughts and actions of design(ing).

Its engagement with or implications for practice and thought

The basis for a theory is the spectacle, meaning both a public show and to look, but if we accept the common notion of theory is 'to speculate' we also have to accept that 'to speculate' is also to play with financial risks for profit. There is then one implication for theories of design(ing) – dealing with the results of practice risking the carrying capacity of the planet with unnecessary stuff and unfulfilling services while chasing profit. In this book, we do not take a position on speculation but we position speculation as an everyday element in all design thought and action.

# A sense of the substantive or theoretical issues that might be engaged

The belief that design comes from somewhere is closely linked with the belief that design is going somewhere (e.g. what design can do). Our view of design in this book reflects the various authors' views of society. And as everyone now uses the same interfaces resulting in the blurring of disciplines, the theories in this book aim to re-focus our sights on the lost subject of design(ing). Each theory can be read individually and/ or randomly, and now all theories have further reading resources that we have listed. Read as a whole the substantive contribution of the book is a restored picture of why design(ing) looks like it looks. Having surveyed this restored picture, it is then impossible for the reader to avoid asking what needs to be done? And we imagine this question will be answered differently by every reader.

#### How concrete examples might be drawn into the argument

Each theory is a concrete example of theory-in-action as the essential 'carnival' mirror for practice continuously distorting what-is to reflect new ideas about what-might-or-might-not-become.

# How proposals for action might be derived from the arguments

Design is where theory and practice meet. The separation of theory and practice is another false dualism that we have to learn to overcome. By classifying initiatives as either theoretical or practical, we are not paying attention to the fact that our view of the world is already deeply informed by theories about the world. In saying we don't have time to waste with theoretical considerations, let's get practical and start implementing solutions, what we are actually implying is that there is no need to question our perspective and explore alternative perspectives. We are jumping straight into action, offering answers to the questions and solutions to the problems at hand, without stepping back to make sure we are asking the right questions. We fail to explore whether the solutions we are aiming for are yet again solving one issue whilst causing harm and ugliness elsewhere.

Every practical act is deeply informed by a whole set of theories and perspectives. So, the question is not whether we are practical or theoretical, but rather whether we are implementing practice in full awareness of the theoretical frameworks — the worldview and value systems — that inform our practice. Taking a design-based approach can help us to make our practice more theoretical and our theory more practical.

Design[ing] involves activities and processes that lie at the intersection of theory and practice. Design[ing] is where art and science meet. Design[ing] integrates and exploits information from many disciplines where we have separated human knowing and doing. Design[ing] is where we can acknowledge the influences of the past and give rise to visions of different futures.

The book provides a conceptual basis of the subject and area of study – design(ing) – and as such is a classic text on theory. Even more 'classic' is our approach, which is intended to challenge or provide an alternative to critical methods and interpretations that are established and traditional. But we have reversed the 'classic' origins of theory by taking the practical experience and activity of design(ing) and turned it into explanations of somewhat overlooked and undervalued essays, papers, book articles, words, terms, authors and phenomena that swirl around design(ing), most of which are commonplace and therefore now functions of the mercantile spectacular.

#### References

Gui Bonsiepe, *Interface – An Approach to Design*, Maastricht: Jan van Eyck Akademie, 1999. Terry Eagleton, "Seven Types of Atheism by John Gray Review – Is Every Atheist an Inverted Believer?", *The Guardian*, Wed 11 Apr 2018, https://www.theguardian.com/ books/2018/apr/11/seven-types-atheism-john-gray-review-atheist-believer-material-world Vilém Flusser, "On Discovery", *Artforum*, 27, No. 10, Summer 1988: 17. Clare O'Farrell, *Michel Foucault*, London, UK: Sage Publications, 2005. Paul A. Rodgers, Giovanni Innella and Craig Bremner, "Paradoxes in Design Thinking", *The Design Journal*, Supplement 1, Volume 20, 2017, pp. S4444-S4458, ISBN 978-1-138-09023-1. Slavoj Žižek tells Owen Jones: 'Clinton is the problem, not Trump'

https://www.theguardian.com/books/video/2018/oct/24/slavoj-zizek-tells-owen-jones-clinton-is-the-problem-not-trump

#### PAGES MISSING FROM THIS FREE SAMPLE

# Acknowledgements

Paul and Craig would like to thank all of the amazing contributors to the 118 Theories of Design[ing] book. We have had the privilege of working with all of these contributors in some capacity over recent years, and we are delighted to share their insightful thoughts on theories of design[ing] here.

We are especially grateful to the following people for taking time out of their busy schedules to write one or more theories of design[ing] -Constantin Boym (USA), Maya Dvash (Israel), Chiara Alessi (Italy), Will Holman (USA), Clive Dilnot (USA), Marco Petroni (Italy), Mark Roxburgh (Australia), Saurabh Tewari (India), Jonathan Ventura and Dina Shahar (Israel), Joyce Yee (UK), Mashal Khan (Pakistan), James Fathers (USA), Heather Wiltse (Sweden), Emmanuel Tsekleves (UK), Jen Archer-Martin (New Zealand), Peter Lloyd Jones (UK), Rachel Cooper (UK), Stephanie Carleklev (Sweden), Cathy Treadaway (UK), Delfina Fantini van Ditmar (UK), Danièle Hromek and Jacqueline Gothe (Australia), Nelly Ben Hayoun (UK), Arturo Escobar (Colombia/ USA), Alfredo Gutiérrez-Borrero (Colombia), and Elaine Igoe (UK).

We would also like to thank our fantastic colleagues, past and present, at institutions including Strathclyde University, Imagination@Lancaster University, Northumbria University School of Design, Edinburgh Napier University, Cambridge University, and Charles Sturt University.

In particular, we would like to acknowledge the support and generosity of many talented individuals that we have worked with and met on our design research journeys. Here, special mention is due to Professor Rachel Cooper, Dr Giovanni Innella, Andy Tennant, Professor Ranulph Glanville, Adjunct Professor Martin James, and Adjunct Associate Professor Ian Coxon.

Last, and certainly not least, Craig would like to thank Laura and Elio, and Paul would like to thank Alison, Charlie, and Max for their neverending support.

## **Contributor Biographies**

**Paul A. Rodgers** is Professor of Design at the University of Strathclyde, Glasgow. He is also the current Arts and Humanities Research Council Leadership Fellow for Design in the UK. Before this, he was Professor of Design at Imagination@Lancaster University, Professor of Design Issues at Northumbria University, School of Design, Reader in Design at Edinburgh Napier University, and a Research Fellow at the University of Cambridge's Engineering Design Centre. He has had an extensive career in design research with over 20 years of experience in product design research and development. He has led several research projects for Research Councils in the UK and design projects funded by the Scottish Government and The Lighthouse (Scotland's National Centre for Architecture, Design and the City). He is the author of more than 150 papers and eight books, including The Routledge Companion to Design Research (2014). His current research explores the discipline of design and how disruptive design interventions can enact positive transformational change in health and social care and elsewhere.

**Craig Bremner** is Professor of Design at Charles Sturt University, Australia. Prior to this, he was Professor in Design Pedagogy at Northumbria University, UK, and before that Professor of Design at the University of Canberra, where he was also Dean of the Faculty of Design and Architecture. He holds a BA in Literature (UWA), a Masters in Design (Domus Academy, Milan) and a PhD (RMIT). His research deals with developing methods to discover how and why we don't know much about the experience of design, as well as finding ways to clarify the reason why 'not-knowing' is an essential and valuable beginning point of practice. Some applications of his research methods have traced the experience of living in Glasgow, using banks and driving motorcars. In his private practice, he has curated design exhibitions in Australia, the USA, and Japan, and he has worked as a designer in Italy, Scotland and Australia.

**Chiara Alessi** is a journalist and curator in the field of design. She writes for many of the major magazines in this area, such as Domus, Interni and Klat. For several years she has been studying the new Italian design culture and its impacts and implications. On this subject, she lectures in some of the most important schools and universities. Recently she has published "After the '00s. The New Italian Design" (Editori Laterza, 2014) and "Design without Designers" (2016), an essay and survey about the 'other' jobs in the Italian design sector. The independent video documentary "Travelling Commonplaces and Special Trades" is dedicated to this subject.

**Jen Archer-Martin** is a spatial designer, thinker and educator. Her transdisciplinary practise encompasses design, writing and performance, exploring spatial and material ecologies of care. Recent work includes *taking note(s)\_performing care*, and collaborations *Make/Use* and *bit-u men-at-work*. Jen is a lecturer and coordinator of Spatial Design at Massey University, Wellington, New Zealand. She is of English, Scottish and Māori (Ngā Puhi) descent.

**Constantin Boym** is Head of Industrial Design at the Pratt Institute in New York City City, USA. Constantin Boym was born in Moscow, Russia in 1955, where he graduated from the Moscow Architectural Institute. In 1984-85 he earned a degree of Master in Design from Domus Academy in Milan. In 1986, he founded Boym Partners Inc. in New York City City, which he runs together with Laurene Leon Boym. Boym Partners Inc. brings a critical, experimental approach to a range of products and environments that infuse humour and wit into the everyday. The studio's designs are included in the permanent collection of the Museum of Modern Art in New York City. In 2014, Constantin Boym received an honorary doctorate from the Corcoran College of Art and design. From 1987 to 2000 Boym was a teacher and program coordinator at Parsons School of Design. In 2010-12 Boym served as Director of Graduate Design Studies at Virginia Commonwealth University in Qatar.

**Stephanie Carleklev** is a graphic designer and senior lecturer at Linnaeus University in Sweden. Her work is driven by a strong interest in life and what sustainability could mean. As a course and former programme leader, Stephanie primarily exercises her design skills by designing education. Her most recent work and research focus on time and its potential in design for sustainable change.

**Rachel Cooper OBE** is Professor of Design Management at the University of Lancaster, where she is Chair of Lancaster Institute for the Contemporary

Arts and also Imagination@Lancaster (a centre for research into products, places and systems for the future). Her research interests cover design management, design policy, new product development, design in the built environment, design against crime, and socially responsible design. Between 2003 and 2008 she led 'Vivacity 2020: Sustainable Urban Design for the 24-Hour City', a £3m EPSRC funded project over five years looking at Manchester, London, and Sheffield. She has authored several books including "The Design Agenda" (1995), "The Design Experience" (2003), "Designing Sustainable Cities" (2009), "Constructing Futures" (2010), "The Handbook of Design management" (2011) and is currently the commissioning editor for an Ashgate series on Socially Responsible Design. Professor Cooper is President of the European Academy of Design, and Editor of The Design Journal. She was a member of the UK Research Assessment Exercise Panel for Art and design in 2008, and in 2011 she was invited to be a member of the European Design Innovation Initiative Leadership Board that produces recommendations on Design for Prosperity and Growth for the EU.

**Clive Dilnot** is Professor of Design Studies at the Parsons School of Design and The New School in New York City. Clive Dilnot was educated as a fine artist, and later in social philosophy. He has taught worldwide including at Harvard University, the School of the Art Institute in Chicago and in Hong Kong, as well as in Australia and the UK. Publications include Ethics? Design? (Archeworks, 2005) the essay for Chris Killip's Pirelli Work (Steidl, 2006) and the co-authored Design and The Question of History (2015). He is the editor of A John Heskett Reader: Design History Economics (2016) and of Heskett's seminar on design and economic Thought, Design and the Creation of Value (2017). He is currently working on a four-volume series Thinking Design: History; Ethics; Knowledge; Configuration (2019-20). He is founding editor of Designing for Dark Times/The Urgency of the Possible, a new series of short books and polemical essays, and Radical Design Thinkers, republishing significant texts in design thinking since 1960.

**Maya Dvash** is Chief Curator at the Design Museum Holon in Israel. Throughout her time at Design Museum Holon, Dvash has curated a vast array of design exhibitions and written on design for numerous platforms. In addition to her functions as editor, curator and writer, Dvash lectures at leading design academies in Israel. Prior to her career at Design Museum Holon, Dvash held various leading editorial positions in some of the toptier publishing houses in Israel (Kinneret, Zomora-Bitan and Modan). Dvash was then appointed Chief Editor of Binyan v'Diyur (Building & Housing) magazine, a seat she filled for six years. Dvash holds a Bachelor's degree in Literature and a Master's degree in Art and Curatorship from Ben Gurion University.

**Arturo Escobar** is Kenan Distinguished Professor of Anthropology at the University of North Carolina, Chapel Hill, USA. His academic research interests include political ecology, anthropology of development, social movements, anti-globalization movements, and postdevelopment theory. He holds a BSc in chemical engineering from the University of Valle, Cali, Colombia, and he completed one year of studies in a biochemistry graduate program at the Universidad del Valle Medical School. He has a master's degree in food science and international nutrition from Cornell University and an interdisciplinary Ph.D from the University of California, Berkeley, in Development Philosophy, Policy and Planning. He has taught mainly at universities in the USA, including the University of Massachusetts Amherst, but also abroad at institutions in Colombia, Finland, Spain, and England.

**Delfina Fantini van Ditmar** is a design researcher and lecturer whose work investigates the socio-ecological and political implications of technological 'smartness' when applied to human bodies, homes and cities. Delfina has a BA in Biology and completed a year of an MFA at Konstfack University in Stockholm. She holds a PhD from the RCA with a thesis entitled 'The IdIoT', which investigated the socio-political implications of technological 'smartness' and the algorithmic processes, characterised as the 'Algorithmic Paradigm'. Delfina has a transdisciplinary background linking design research, critical algorithmic studies, architecture, biology and the sociology of technology. She has been a visiting lecturer in several institutions, including The Bartlett, Architectural Association, Canterbury University, Liverpool University and TU Berlin, among others.

**James Fathers** is Director of Syracuse University School of Design and the Iris Magidson Endowed Chair of Design Leadership. Fathers' teaching

and learning activity focuses on sustainability, universal design, and design in a development context. His research interests lie in socially responsible design; his doctoral research focused on the role of design in a development context, which led to a 12-month research sabbatical to India, where he worked alongside local crafts groups to develop appropriate design training strategies to facilitate enterprise development.

Jacqueline Gothe is a design researcher in visual communication design and the Director of Visual Communication Design in the School of Design at University of Technology Sydney, Australia. Her research approach emphasizes research through design as a knowledge creating paradigm. Jacqueline has widely researched the application of communication and design principles in the natural resource management sector, investigating transdisciplinary approaches in projects dealing with the consequences of environmental flows and pesticide toxicity on the Hawkesbury Nepean River. Her PhD, awarded in 2016, investigated the role of the visual communication designer in complex interdisciplinary and cross-cultural environmental communication design projects. Since 2011 she has worked in partnership with Firesticks, an Indigenous-led network that mentors, shares and supports the revival of cultural burning practices in natural resource and fire management contexts. Her communication and information design contribution to Firesticks has been recognised in 2011 and 2014 by the International Institute of Information Design Awards (IIID).

Alfredo Gutiérrez-Borrero is Professor of Industrial Design at the Universidad Jorge Tadeo Lozano in Bogotá, Colombia. He is interested in opening 'the future' to other pasts and 'the past' to other futures. Gutiérrez explores the confluence between Western design and archaeology (the only ones, to tell the truth) and the polycardinal prefigurative forms (from outside the West) that he calls dessobons.

**Nelly Ben Hayoun** is a French designer, an award-winning director and experience designer; she works with scientists and engineers to devise events and experiences. Nelly is also an exhibitor and keynote speaker who has worked with museums and design centres across the world. In 2013, Icon Magazine nominated Nelly as one of the 50 international designers "shaping the future". In 2014, Wired Magazine awarded her with a

290

WIRED Innovation fellowship for her work to date and for its potential to make a "significant impact on the world". In 2015, Nelly was nominated for a Women of the Year Achievement Award. Also, in 2015, she released her feature film Disaster Playground. The film is based on an investigation of emergency procedures for disasters such as earth-bound rogue asteroids. In 2016, she began work on her next project: feature film, digital platform and exhibition entitled "The Life, the Sea and the Space Viking". Nelly is a member of the International Astronautical Federation, Space Outreach and Education committee.

**Will Holman** was educated as an architect at Virginia Tech and the Rural Studio. Will is the Executive Director of Open Works, a makerspace that opened in central Baltimore in 2016. He is the co-founder of the Industrial Arts Collective; their mission is to be an online resource for communication, collaboration, and general education on all the amazing people living and working in Baltimore. Will is author of Guerilla Furniture Design, which is an innovative guide to dozens of strategies for upcycling scrap cardboard, metal, plastic, or wood into dependable shelving units, sturdy tables, and fun lamps. Most recently he has contributed two essays: The Toaster Paradox and The Open Source Object to the Open Making Manifesto: Field Guide in conjunction with the Open Desk exhibit at the Vitra Design Museum.

**Danièle Hromek** is a spatial designer, speculative designer and public artist, fusing design elements with installations, sculptural form and research. Danièle also works as a researcher, educator and cultural advisor considering how to Indigenise the built environment by creating spaces to substantially affect Indigenous rights and culture within an institution. She works at the intersection of architecture, interiors, urban design, performance design and fine arts. As an Aboriginal researcher and designer, her work is grounded in her cultural and experiential heritage, often considering the urban Aboriginal condition, the Indigenous experience of Country and contemporary Indigenous identities. Gaining her experience globally, she has lived in London, Paris, Barcelona, Vancouver and Sydney. Danièle is a Saltwater woman of the Budawang tribe of the Yuin nation, with French and Czech heritage. Danièle trades as Djinjama, a word in Dhurga that means 'make or complete or produce or build something'. **Elaine Igoe** is a Senior Lecturer in Textiles and Fashion at the University of Portsmouth as well as a visiting tutor at the Royal College of Art. She has acted as an external adviser for doctoral students at the University of Portsmouth, the Royal College of Art and Chelsea College of Art and Design. She holds a Fellowship of the Higher Education Academy and is a full member of The Textile Society and the Design Research Society. Her research, both practice-based and theoretical, has always taken an approach that is experimental and conceptual; questioning and exploring the innate and typical characteristics of textiles, materials and cloth, particularly in the context of the body. Her theoretical work in design research utilises feminist qualitative research methods, exploring relationality through storytelling, autoethnography and metaphor.

**Mashal Khan** is a strategic designer and visual researcher currently working for Kaarvan Craft Foundation, an NGO based in Pakistan, striving to empower women in low-income communities through life skills. Mashal sees the world through a sense of wonder, humility and respect – ever ready to confront complex social issues by designing new ideas, tools, methods and action agendas.

Peter Lloyd Jones completed his PhD in cellular and genetic pathology at Cambridge University, followed by post-doctoral fellowships at UC Berkeley and the University of Toronto. In 2005, Peter became a tenured Associate Professor of Pathology and Lecturer in Architecture at The University of Pennsylvania. Peter Lloyd Jones is an award-winning cell and molecular biologist and inventor, whose discoveries have uncovered fundamental mechanisms in embryogenesis and human disease, including breast cancer, lung development and pulmonary hypertension. Peter's work constantly seeks and uncovers new solutions to complex problems in biology, medicine and design via extreme collaborations with diverse individuals from multiple fields, including mathematics, computation, chemical engineering, and industrial, fashion, textile and architectural design. Peter is a Professor of Design at Sheffield Hallam University, UK. Before this he was the first Associate Dean of Emergent Design and Creative Technologies at The Sidney Kimmel Medical College at Thomas Jefferson University (TJU), where in 2013, he became Executive Director of MEDstudio @JEFF; an anti-disciplinary research and education unit

which is the first of its type within a US medical school, and is focused on discovering new and dignified solutions in healthcare using approaches deeply rooted in empathy.

**Marco Petroni** is a design theorist and critic. He is also Adjunct Professor at Politecnico (Milan) and the Università della Campania (Naples). He is Curator at large at Plart Foundation (Naples). He collaborates with several art, architecture and design magazines such as Domus, FlashArt, and Artribune. Petroni studied contemporary art and architecture. He develops innovative curatorial projects and events related to the design world themes with a transdisciplinary approach.

Mark Roxburgh is Associate Professor of Design at the University of Newcastle, a management stooge, and a fading would be indie rock star (google Joeys Coop). Mark's scholarly interests cover design research, visual communication theory and practice, and photographic theory and practice. His PhD explored the central role that visual images and visual perception play in design, with a specific emphasis on how photographic images condition us to perceive, experience and transform the world in a self-replicating manner. His more recent pursuits have been: developing a phenomenological theory of photography to counter the dominance of critical theory and semiotic deconstruction; developing a theory of design as a form of embodied perceptual synthesis to counter the dominance of the design problem-solving metaphor; and making music that generally gets ignored to counter the dominance of youth-driven culture. More recently he has grown suspicious of the instrumentalization of the anthrochauvinist bandwagon known as human-centred design and thinks it time to head to the hills and dig the bunker.

**Dina Shahar**, a graduate of the Royal College of Art, London (MA RCA), is Head of the Inclusive Design Department, at the Hadassah Academic College, Jerusalem. Her academic interests span the methodologies of Inclusive Design and the evolving roles of the design discipline as a whole. Her creative work focuses on design for public spaces.

**Saurabh Tewari** is Assistant Professor at the School of Planning and Architecture Bhopal. He studied Architecture (B. Arch, 2003-08) at SSAA

Gurgaon and Communication Design (M. Des, 2008-10) at IDC IIT Bombay. He has been teaching basic design, graphics, and architectural history for eight years. He is a PhD candidate at Design Programme, IIT Kanpur researching on design and its history in India.

**Cathy Treadaway** is Professor of Creative Practice at Cardiff Metropolitan University and a founder member of the Centre for Applied Research in Inclusive Arts and Design (CARIAD). She is Principal Investigator on the AHRC 'LAUGH' design for dementia research project. Cathy is a Fellow of the Royal Society of Arts and a Fellow of the UK Higher Education Academy.

**Emmanuel Tsekleves** leads research at the intersection of design, health, wellbeing and technology at Imagination@Lancaster at Lancaster University. He conducts design research by working with communities to develop new ways about health, wellbeing and technology to create a 'culture for health' that is knitted into everyday community life. He is the co-editor of the Design for Health book published by Routledge.

**Jonathan Ventura** is a design anthropologist, specializing in design theory, research and practice in the fields of social and healthcare design. Jonathan is a senior lecturer at the Department of Inclusive Design at Hadassah Academic College and the Graduate Program of Design at Shenkar - Engineering, Design, Art and a visiting researcher at the Royal College of Art's Helen Hamlyn Centre for Design.

**Heather Wiltse** is Assistant Professor at Umeå Institute of Design, Umeå University, Sweden, where she is also currently serving as director of PhD studies. Her transdisciplinary research centres around trying to understand and critique the role of digital, networked, computational things in experience and society in ways that can inform design.

**Joyce Yee** is Professor of Design and Social Innovation at Northumbria University Design School, UK. She holds a BFA in Graphic Design, an MA in Visual Communication and a PhD in Design. Her research focuses on the role, value and impact of design in areas of service design and social innovation. She is also interested in the role of practice as a form of inquiry and the inherent 'messiness' of design methods.

# Index

### A

affordable, 32, 51, 197 against, 17, 18, 22, 32, 33, 36, 40, 121, 139, 153, 159, 177, 183, 271, 287 Agamben, Giorgio, 157 agile, 31, 39, 247 Ahuja, Simone, 181 Alessi, Chiara, 149, 151, 153, 249, 283, 285 Alexander, Christopher, 97 Al-Wakrah Stadium, 201 Amazon, 49 AMO, 75 anecdotal, 36, 179 Angel, Shlomo, 97 anonymous, 40, 99 Ansari, Ahmed, 273 Anthropocene, 14, 117, 169, 177, 253 anthropocentric, 35, 177, 223 Anti-Design, 44, 121, 189 anti-design thinking, 44, 189 Appadurai, Arjun, 67 Apple, 91 Apter, Emily, 123 Archer-Martin, Jen, 221, 223, 283, 287 Archigram, 121 Archizoom, 79 Arendt, Hannah, 257 Arnoldi, Jakob, 67 Arvidsson, Adam, 67 ATM, 85, 197

Aunty Gloria Nipperess (Budawang/Yuin), 254 automated, 33, 39, 41, 59, 85, 125, 197 autonomous, 40, 155, 197, 267

## B

Bachelard, Gaston, 263 balancing, 34, 39, 55, 245 Balaram, Saranya, 183 Barad, Karen, 221 barbaric, 37, 139 Barcelona, 155, 281, 290 Barthes, Roland, 259 Bassett, Caroline, 127 Battaglia, Debbora, 69 Bauhaus, 167, 179 Bauman, Zygmunt, 73 Baumeister, Roy F., 229 Baxandall, Michael, 163 Beck, Ulrich, 165 Behrens III, William W., 113 Ben Hayoun, Nelly, 257, 259, 283, 289 Benanav, Aaron, 85 Benjamin, Ruha, 155 Benjamin, Walter, 159 Berardi, Franco (Bifo), 59, 77, 85, 89, 113, 143 Bernadet, Laura, 147 better, bettering, 18, 33, 34, 37, 38, 39, 40, 43, 44, 51, 69, 73, 77, 81, 83, 91, 95, 103, 105, 127,

139, 145, 159, 229, 281 Bharatanatyam, 185 Bichard, Jo-Anne, 195 Bijker, Wiebe E., 219 bipolar, 43, 191 Blakinger, John R., 167 Blum, Andrew, 95 Bodkin, Fran, 255 Bogota, 281, 289 Bollier, David, 261 Bologna, 113 Boltanski, Luc, 89 Bonsiepe, Gui, 21, 22, 25, 73 Bostrom, Nick, 173 bounding, 37 Bourriaud, Nicolas, 53 Bowker, Sam, 99 Boym, Constantin, 145, 283, 286 Branzi, Andrea, 79, 135, 141, 151 Bratton, Benjamin, 117 Brazil, 181 Bremner, Craig, 13, 17, 21, 23, 26, 31, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 147, 153, 177, 187, 227, 235, 281, 285 Brown, Tim, 189 Buchanan, Richard, 171, 223 Bucharest, 281 business, 33, 36, 40, 43, 61, 89, 91, 107, 111, 119, 189, 209, 233, 239

#### С

Campanini, Cristiana, 141 Cape Town, 281 capital, 15, 34, 39, 42, 67, 69, 73, 91, 93, 95, 107, 117, 121, 201, 203 capitalism, 40, 59, 61, 89, 93, 95, 131, 139, 151, 233, 251, 269 careful, 33, 89, 245 caring, 39, 40, 93, 221, 229, 263 Carleklev, Stephanie, 243, 245, 247, 283, 286 Carlow, Vanessa Miriam, 75 Carnegie Mellon University, 171 Carpo, Mario, 225 Cartesian, 38, 225 Cassin, Barbara, 123 Castelli, Clino Trini, 81 Castiglioni, Achille, 99 Castiglioni, Pier Giacomo, 99 catastrophic, 35, 139, 231 Chambers, Robert, 207 Charles Sturt University, 13, 283, 285 cheap, 32, 34, 36, 61, 115, 117, 119, 131 circumstantial, 38, 163 climatic, 34, 95, 255 Club of Rome, 113 Cohen, Benjamin R., 105 Cohen, Jon, 231 Cohen, Leonard, 61 Collaborative, 35, 203, 211, 255 comfortable, 33, 44, 101 communal, 35, 105, 255, 265, 267 confusing, 41, 187 constructivist, 34, 219

Cooper, Rachel, 17, 217, 239, 241, 283, 286, 287 cosmological, 34, 69 Couldry, Nick, 233 Coxon, Ian, 283 CRISPR, 231 Cross, Nigel, 241 Csikszentmihalyi, Mihaly, 101 cultural, 22, 33, 35, 42, 55, 89, 111, 121, 145, 185, 187, 195, 207, 213, 255, 267, 275, 289, 290 curious, 44, 145, 163, 247 Curious George, 145 Cutcher-Gershenfeld, Joel, 137

## D

dangerous, 42, 107, 245 Danto, Arthur C., 111 dark, 31, 36, 37, 43, 61, 133, 233, 287 Darwin, Charles, 17, 23, 49, 169 data, 38, 91, 147, 155, 197, 211, 225, 233, 253 Dautry, Jehanne, 79 Davies, Jeremy, 75, 131 De Decker, Kris, 155 declassified, 41, 277 deflating, 43 Debord, Guy, 147 Deleuze, Gilles, 257 Deloria Jr., Vine, 275 derived, 23, 24, 39, 42, 47, 59, 67, 141, 143 Design Council (UK), 71, 111, 279 Design for the Real World, 38, 131, 201, 245

Design Issues, 57, 73, 151, 169, 175, 183, 219, 223, 281, 285 Design Journal (The), 26, 103, 127, 147, 197, 217, 223, 245, 287 design thinking, 14, 26, 34, 44, 103, 175, 179, 189, 191, 241, 279, 287 designer-as-mythologist, 34, 259 destabilising, 42 Devlieger, Patrick, 193 Dilnot, Clive, 157, 159, 161, 163, 171, 245, 283, 287 disempowering, 43, 233 dispiriting, 36, 37 disruptive, 42, 55, 285 DNA, 105, 231 Donzé, Pierre-Yves, 119 Dreyfuss, Henry, 199 Droste, Magdalena, 179 Dubberly, Hugh, 279 Dunne, Anthony, 191, 215 duplicate, 42, 49 Dvash, Maya, 147, 283, 287, 288

## E

Eagleton, Terry, 22, 25 early learning, 34, 227 Edinburgh Napier University, 283, 285 Edison, Thomas, 41, 209 educational, 33, 111, 167 emoting, 35, 36 Escobar, Arturo, 203, 261, 263, 265, 267, 269, 271, 283, 288 Esquerre, Arnaud, 89 Ettinger, Bracha L., 279 everything, 13, 18, 23, 35, 36, 38, 40, 41, 42, 63, 73, 77, 83, 85, 115, 145, 149, 165, 167, 175, 191, 205, 207, 215, 245, 251, 255, 265 evolutionary, 34, 169 exaggerated, 33, 43, 141, 191 excessive, 33, 237 Eyben, Rosalind, 207

#### F

FabLab, 33, 137 Facebook, 67, 123, 133 failing forward, 41, 209 false, 24, 43, 123, 203 fantastic, 39, 41, 127, 197, 283 Fantini van Ditmar, Delfina, 251, 253, 283, 288 Fathers, James, 207, 209, 283, 288 fictional, 38, 81, 235 Fiksdahl-King, Ingrid, 97 Fischer, Berenice, 221 Fitzgerald, Neil, 47 Flores, Fernando, 261 Florida, 139 Flusser, Vilém, 23, 26, 69 Forlano, Laura, 177 Foster, Hal, 147, 187, 263 Foucault, Michel, 21, 23, 26, 49, 53, 235 Foust, Mathew A., 185 Frank, Robert H., 47 Frase, Peter, 59, 93 Fraser, Nancy, 93 Fry, Tony, 157, 161, 245, 261, 273 Fuad-Luke, Alastair, 55 Fuller, Buckminster, 231 future, 14, 17, 18, 21, 22, 23, 25,

39, 41, 42, 43, 53, 57, 59, 61, 67, 73, 75, 79, 81, 85, 93, 95, 103, 105, 113, 131, 137, 139, 147, 173, 175, 193, 197, 211, 215, 229, 233, 245, 255, 257, 261, 275, 287, 289

### G

galvanising, 40 Gandhi, Mahatma K., 32, 183 Gandhian, 32, 183 García Gutiérrez, Antonio L., 277 Gdynia, 281 gendered, 35, 279 generational, 35, 255 generative, 35, 147, 255, 277, 279 Gershenfeld, Alan, 137 Gershenfeld, Neil, 137 Gibson, James J., 51, 247 Gilligan, Carol, 221 Glanville, Ranulph, 133, 219, 283. global health, 39, 217 global South, 267, 273 Goldstein, Rebecca, 49 Gothe, Jacqueline, 255, 283, 289 Graeber, David, 89 Graham, Mary, 255 Graham, Stephen, 87 Graz, 281 green, 37, 121, 131, 135 Greenfield, Adam, 49 grey, 37, 135 grey ecology, 135 Groll, Sandra, 73 Groys, Boris, 53, 77, 187 Guattari, Félix, 257 Gupta, Anil K., 181

Gutiérrez Borrero, Alfredo, 267, 273, 275, 277, 283, 289

### Η

hackerspaces, 137 Hadid, Zaha, 201 Hands, David, 239 Hara, Kenya, 65, 83, 103 Haraway, Donna J., 165, 167 Harman, Graham, 165, 167 Harrison, Max Dulumunmun, 255 Hauffe, Thomas, 119 Hawthorne, Nathaniel, 77 Hayek, Nicolas G., 119 Heidegger, Martin, 221 Helfrich, Silke, 261 Heppell, Stephen, 57 hermeneutics, 195 Hernández, Ricardo J., 241 Hesselink, Sinette, 281 Hoang, Phu, 95 Holert, Tom, 151 Holman, Will, 155, 283, 290 Hromek, Danièle (Budawang/ Yuin), 255, 283, 290 Huizinga, Johan, 213, 249 human-centred design, 177, 197, 223, 292 humble, 32, 65, 205 Hurricane Katrina, 139

## I

idealist, 39, 201 IDEO, 189 ideology, ideological, 35, 36, 39, 179, 201, 257 Igoe, Elaine, 279, 283, 291

IKEA, 34, 199 imagination, 44, 73, 143, 175, 205, 243, 249, 253 Imagination@Lancaster, 283, 285, 287, 293 immersive, 41, 207 imperfect, 42, 63 inclusive, 41, 81, 197, 292, 293 India, 181, 183, 185, 207, 283, 289, 293 indigenous, 35, 181, 221, 255, 273, 275, 289, 290 inflation, 34, 43, 199 Ingold, Tim, 243, 265 Innella, Giovanni, 13, 23, 26, 103, 151, 283 instructing, 33 Intergovernmental Panel on Climate Change (IPCC), 253 iPhone, 145 irrelevant, 44, 203 Irrgang, Daniel, 69 Irvine, Renwick, 207 Ishikawa, Sara, 97 Italian, 99, 113, 149, 285, 286 Italian Autonomia Movement, 113 iterative, 35, 209, 255 Izenour, Steven, 147

## J

Jackson, Steven J., 87 Jacobson, Max, 97 James, Martin, 283 jealous, jealousy, 36, 109 Joselit, David, 263 Journal of Peer Production, 137 jugaad, 32, 181

#### 300

Junginger, Sabine, 239 Just, Peter, 207 justified, 21, 38, 157

#### K

Kant, Immanuel, 159 Kathakali, 185 Kelley, David, 223 Kelley, Tom, 189, 223 Kenya, 181 khadi, 183 Khan, Mashal, 205, 283, 291 Kimbell, Lucy, 279 Kindle, 49 King's Fund Hospital Bed Project, 217Kirby, David, 215 Koolhaas, Rem, 75 Krippendorff, Klaus, 73, 277 Kume Möngen (Mapuche), 275 Kwaymullina, Ambellin, 255

#### L

Lambert-Beatty, Carrie, 263 Lancaster University, 221, 283, 285, 293 Langrish, John Z., 169 Lapland, 281 Las Vegas, 147 Latour, Bruno, 111 Law, John, 219 Lawson, Bryan, 241 learning, 33, 34, 57, 147, 151, 195, 197, 207, 209, 213, 227, 289 Lederach, John Paul, 205 Lego, 91 Lepore, Jill, 105, 127 Lezra, Jacques, 123 Limits to Growth, The, 113 Lloyd Jones, Peter, 18, 225, 227, 229, 231, 283, 291 Lockwood, Thomas, 239 Łódź, 281 Louisiana, 139 Lovell, Sophie, 197 Lovink, Geert, 77, 123, 153 ludic, 41, 213, 249 luxurious, 33, 47 Lyotard, Jean-Francois, 69

#### Μ

MacDonald, Stuart, 111 Mackenzie, Dorothy, 131 MacKenzie, Donald, 219 makerspaces, 137 Maldonado, Tomás, 199 management, 13, 38, 55, 209, 231, 239, 255, 286, 287, 289, 292 manual of design, 107 Manzini, Ezio, 107, 129, 175, 223, 267 Mars, 145 Maser, Siegfried, 73 materials' history, 43, 263 matriarchal, 36, 105 mature, 37, 131, 159 Maxigas, 137 May, Theresa, 187 Mazé, Ramia, 247 McConchie, Peter, 255 McLuhan, Marshall, 73 Meadows, Dennis L., 113 Meadows, Donella H., 113 meagring, 31, 32

Mejias, Ulises A., 233 Meaney, Thomas, 143 Mendini, Alessandro, 71, 125, 135, 149 messy, 32, 38, 205, 243 Miah, Andy, 115 Miami, 281 Midal, Alexandra, 53 Midgley, Mary, 125 Miéville, China, 73 Milan, 79, 81, 99, 141, 149, 153, 281, 285, 286, 292 Miller, Daniel, 101, 237 Minobimaatisiiwin (Anishinaabeg), 275 misfit, 42, 97 Mitakuye Oyasin (Lakota), 275 modernism, 113, 121 Monaghan, John, 207 Mondrian, Piet, 129 mongrel, 42, 111 Moore, Jason W., 61, 131 More, Thomas, 73 more-than-human(ist), 223 Morozov, Evgeny, 251 Morris, Wiliam, 179 Morton, Timothy, 117 Muni, Bharata, 185 Murnane, Gerald, 235 Murphy, Emma, 241 museum, 33, 147, 286, 287, 288, 289, 290

#### N

Nairobi, 281 NASA, 145 National Health Service (UK), 161 Natyashastra, 185 Nedelkoska, Ljubica, 125 Nelson, Harold G., 243 Nelson, Robert, 109 neoplasticism, 129 New Orleans, 139 Newman, Damien, 279 Nolan, Billy, 281 non-Cartesian, 225 Norman, Don, 51, 249 Northumbria University School of Design, 283, 285, 293 Nothing, 14, 33, 38, 43, 61, 63, 111, 117, 153, 159, 201, 205, 235

## 0

Obama Care, 161 of the South(s), 273 ontological, 261, 265 Organisation for Economic Cooperation and Development (OECD), 125 O'Shea, Lizzie, 79 Oxford English Dictionary, 239

#### P

Packard, Vance, 133 Paetz, Paul, 55 Pallister, James, 71 Papanek, Victor, 38, 131, 201, 245. paradox, paradoxical, 22, 23, 42, 103, 137, 139, 197, 235, 265, 290 Parker, George, 187 Parmesani, Loredana, 149 Partridge, Rebecca, 217 Patel, Raj, 61, 131 Perks, Martyn, 121 Pessimistic, 173 Peters, Tom, 209 Petroni, Marco, 79, 151 Pfeiffer, David, 193 philosophy, 21, 36, 47, 81, 111, 117, 125, 153, 185, 193, 257 Picasso, Pablo, 163 plastic, 43, 129, 263 play, 24, 39, 41, 47, 91, 137, 145, 213, 225, 247, 249, 257, 259 pluralistic, pluralistically, 41, 44, 187, 203 plurality, 41, 187, 223, 257 pluriversal, 265, 269 political, 33, 42, 44, 55, 59, 111, 119, 137, 147, 153, 161, 165, 183, 189, 239, 253, 257, 267 pop, 121 Pope Francis, 131 Popli, Saurabh, 183 Pornographic, 143 Possible, 17, 21, 22, 23, 36, 39, 41, 53, 67, 73, 79, 161, 163, 197, 215, 235, 247, 249, 251, 265, 281 post-economic, 271 power, 37, 41, 147, 165, 221, 225, 233, 235, 257, 259, 261, 275 Prabhakar, Nipun, 183 Prabhu, Jaideep, 181 practical, 24, 25, 40, 43, 149, 151 Prague, 281 Press, Mike, 239 pride, 109, 245 Puig de La Bellacasa, Maria, 221

Pullin, Graham, 193 Pye, David, 63

## Q

Qatar, 201 Querétaro, 281 Quiggin, John, 117 Quintini, Glenda, 125 Quinz, Emanuele, 79, 153

## R

Raby, Fiona, 191, 215 radical, 32, 44, 49, 71, 79, 119, 135, 141, 165, 203 Radio Alice, 113 Radical Design, 44, 71, 79, 135, 141 Radjou, Navi, 181 Railton, Peter, 229 Ramalho, Ana Quintela Ribeiro Neves, 109 Ramaswamy, E.A., 207 Rams, Dieter, 41, 91, 137, 197 Ranciere, Jacques, 65, 125 Randalls, Samuel, 95 Randers, Jørgen, 113 rasa, 185 Raunig, Gerald, 117 Ray, Gene, 117 Redgrave, Richard, 107 Redhead, Steve, 115 Redström, Johan, 191, 211 relational, 35, 44, 203, 221, 251, 255, 275, 279 repairable, 87 Resnick, Mitchel, 249 responsive, 91

Rey, Margret, 145 Roberts, Kevin, 181 Rochberg-Halton, Eugene, 101 Rodgers, Paul A., 13, 17, 21, 23, 26, 31, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 147, 153, 177, 187, 227, 235, 281, 285 Rolnik, Suely, 117 romance, 36, 77 romantic, 77, 261 Ross, Andrew, 95 Rowe, Peter G., 241 Roxburgh, Mark, 169, 171, 173, 175, 177, 179, 219, 237, 283, 292 Rumsfeld, Donald, 83 rural, 34, 75, 181, 290 Rusch, Frank R., 193

## S

Sabin, Jenny E., 231 San Francisco, 281 Sanskrit, 185 sarvodaya, 183 satiating, 32 Schwartz, Susan L., 185 scientific, 18, 159, 227, 229 Scott Brown, Denise, 147 Scullion, Gerry, 177 Seligman, Martin E. P., 229 sentimental, 36, 125, 129, 175,

237, 281 Serres, Michel, 61 Shah, A.M., 207 Shahar, Dina, 189, 191, 193, 195, 197, 199, 201, 283, 292 sharing, 93, 137 Sharma, Kriti, 265 Shvo, Galit, 195 Signature Architecture, 201 Silicon Valley, 105, 159 Silverstein, Murray, 97 Simon, Herbert A., 163 Sloterdijk, Peter, 111, 177 SMART, SMARTness, 39, 183, 251, 288 Smith, Rory, 115 Snelson, Kenneth, 231 Snow, C.P. (Charles Percy), 227 Snyder, Jaime, 155 Solnit, Rebecca, 105 Sottsass, Ettore, 91 spectacle, 24, 107, 147, 187 speculative, 47, 81, 191, 205, 215, 221, 235, 290 Spitz, René, 73 Srinivas, M.N., 207 Sripada, Chandra, 229 Stadler, Robert, 63 star designers, 40, 99, 201 Starck, Philippe, 249 Steinmueller, Ed, 127 Stengers, Isabelle, 139 Steffensen, Victor, 255 Stephenson, Wen, 139 Sterling, Bruce, 215 Stewart, Susan, 101 Stewart, Susan C., 157

#### 304

Stolterman, Erik, 243 studio-based, 195 Suma Qamaña (Aymara), 275 Superstudio, 121 Swatch, 119 Swatchification, 119

#### T

TechShops, 137 Tennant, Andy, 13, 283 Tether, Bruce, 241 Tewari, Saurabh, 181, 183, 185, 283, 292 Thackara, John, 115, 177 theoretical, 24, 25, 40, 149, 151, 165, 195, 219, 291 thoughtless, 175 Thrift, Nigel, 87 tired, 113 Tonkinwise, Cameron, 169, 203 Transition Design, 81 transitive, 81 Treadaway, Cathy, 249, 283, 293 Tronto, Joan, 221 Troxler, Peter, 137 Trump, Donald, 26, 159 Tsekleves, Emmanuel, 213, 215, 217, 283, 293 tuning, 38, 211 Turner, Fred, 251

#### U

ultimate, 39, 71, 115, 165 uncertain, uncertainty, 31, 39, 59, 67, 171, 245, 251 Uncle Greg Simms (Gadigal, Dharug, Gundungurra, Budawang), 254 undisciplined, 13, 14, 15, 38, 42, 55, 57, 103, 239 United Nations, 75 University of Cambridge, 285 University of Strathclyde, 13, 285 University of the Underground, 257 unknown, 18, 31, 42, 44, 83, 103 utopia, utopian, 39, 73, 93, 183, 251 UX, 155

## V

Vaillant, Alexis, 63 Valéry, Paul, 21 van Gemert, Femke, 281 van Lier, Bas, 281 van Tuinen, Sjoerd, 177 Vancouver, 281, 290 Vaneigem, Raoul, 271 Ventura, Jonathan, 189, 191, 193, 195, 197, 199, 201, 283, 293 Venturi, Robert, 147 Virilio, Paul, 135 Voss, George, 127

#### W

Wainwright, Oliver, 201 Wajcman, Judy, 219 Wark, McKenzie, 59, 119 Warman, Matt, 91 weather, 34, 35, 95 Weibel, Peter, 69 Wendt, Albert, 275 Whakapapas (Maori), 275 What Design Can Do, 24, 36, 281 Wiesing, Lambert, 47 Williams, R. John, 59, 173
Willis, Anne-Marie, 81
Wiltse, Heather, 211, 233, 283, 293
winning, 115
Winograd, Terry, 261
Wong, Julia Carrie, 135
Wood, John, 73
Wood, Michael, 123
World Bank, 75
Wright, Eric Olin, 93
Wuggenig, Ulf, 117

## Y

Yee, Joyce, 203, 283, 293 Yeo, Stephen, 161

## Ζ

Zapatista of Chiapas, 269 Zielinski, Siegfried, 69 Žižek, Slavoj, 21, 26, 35, 83. zombie, 117 Zuboff, Shoshana, 233

#### #

1.5°C, 253