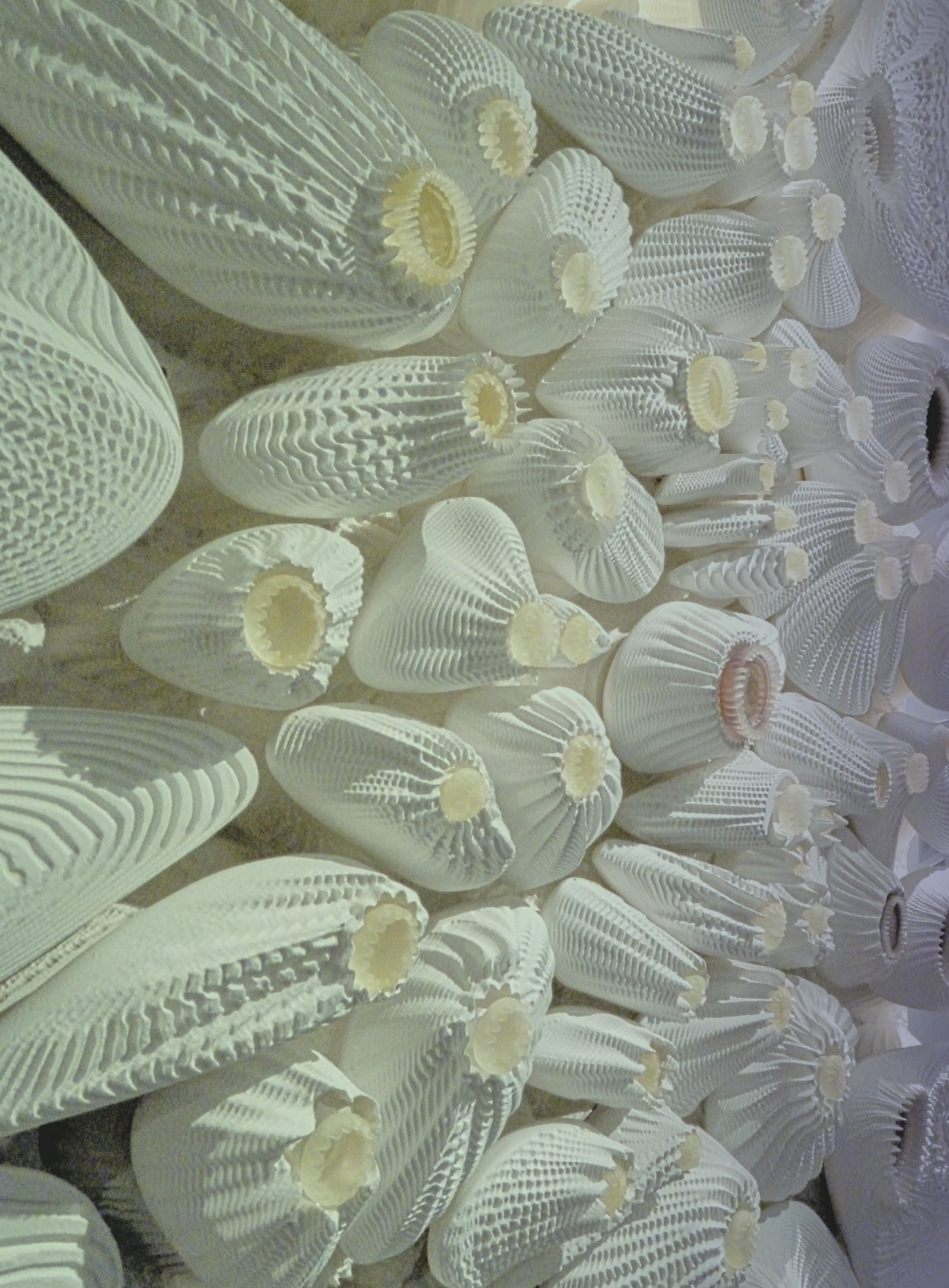


Guest-edited by Yael Reisner

BEAUTY MATTERS



Human Judgement and the
Pursuit of New Beauties
in Post-Digital Architecture



Guest-edited by Yael Reisner

BEAUTY MATTERS

Human Judgement and the
Pursuit of New Beauties
in Post-Digital Architecture



ARCHITECTURAL DESIGN

September/October 2019

Profile No 261

About the Guest-Editor

Yael Reisner

05

Introduction

Architecture and Beauty

A Symbiotic Relationship

Yael Reisner

06

Beauty in Architecture

Not a Luxury – Only a Necessity

Semir Zeki

14

Truth and Beauty

The Role of Aesthetics in Mathematics and Physics

Robbert Dijkgraaf

20

The Return of Beauty

Driving a Wedge Between Objects and Qualities

Graham Harman

26

Abstraction and Informality Generate a New Aesthetic

An Interview with Kazuyo Sejima

30

Kazuyo Sejima & Associates,
Nishnoyama House, Kyoto, Japan,
2013

New Solids and Massive Forms

Winka Dubbeldam

38

Which Beauty Will Guide Us?

Seeking a Reflective, Sustainable, Socially Engaged Visual Culture

Izaskun Chinchilla and Emilio Luque

46

Chromatic Compositions

Design Dissonance and the Aesthetic of Fusion

Nannette Jackowski and Ricardo de Ostos

52

Beauty as Ecological Intelligence

Bio-digital Aesthetics as a Value System of Post-Anthropocene Architecture

Claudia Pasquero and Marco Poletto

58

Archi-Tectonics,
Inscape meditation space,
Chelsea, New York,
2016

The Primacy of Relationships and the Reclamation of Beauty

Jeanne Gang: Observed and Interviewed

Peter Cook

66

The Geometry of Seduction

Considerations of Beauty from Noun to Verb

David A Garcia

74

Ambiguous, Bipolar Beauty

And Similarly Agile and Fragile Post-Digital Practices

Marjan Colletti

90

A Specific Theory of Models

The Posthuman Beauty of Weird Scales, Snowglobes and Supercomponents

Tom Wiscombe

80

Tom Wiscombe Architecture,
Taichung City Cultural
Center, Taichung City,
Taiwan,
2013

Deep Immediacy

Programming
Beauty

Stefan Rutzinger and
Kristina Schinegger

98

Beauty is in the Back Story: Diversity, Complexity and Collaborative Making in the Australian Condition

In Conversation with John Wardle

Fleur Watson and Martyn Hook

104

In Search of the Unseen

Towards Superhuman
Intuition

Alisa Andrasek

112

In Part Whole

The Aesthetics of
the Discrete

Gilles Retsin

120

Counterpoint

'A Rose by Any
Other Name Would
Smell as Sweet'

Finding Beauty in
the Past Century

Alan Powers

128

John Wardle Architects,
Ian Potter Southbank
Centre, Victorian College
of the Arts,
University of Melbourne,
2019

Contributors

134

Editorial Offices

John Wiley & Sons
9600 Garsington Road
Oxford
OX4 2DQ

T +44 (0)1865 776868

Editor

Neil Spiller

Commissioning Editor

Helen Castle

Managing Editor

Caroline Ellerby
Caroline Ellerby Publishing

Freelance Contributing Editor

Abigail Grater

Publisher

Paul Sayer

Art Direction + Design

CHK Design:
Christian Küsters
Barbara Nassisi

Production Editor

Elizabeth Gongde

Prepress

Artmedia, London

Printed in Italy by Printer

Trento Srl

Denise Bratton

Paul Brislin

Mark Burry

Helen Castle

André Chaszar

Nigel Coates

Peter Cook

Teddy Cruz

Max Fordham

Massimiliano Fuksas

Kate Goodwin

Edwin Heathcote

Anthony Hunt

Charles Jencks

Bob Maxwell

Brian McGrath

Jayne Merkel

Peter Murray

Kester Rattenbury

Mark Robbins

Deborah Saunt

Patrik Schumacher

Coren Sharples

Leon van Schaik

Claire Weisz

Ken Yeang

Alejandro Zaera-Polo

EDITORIAL BOARD

Journal Customer Services

For ordering information, claims and any enquiry concerning your journal subscription please go to www.wileycustomerhelp.com/ask or contact your nearest office.

Americas

E: cs-journals@wiley.com
T: +1 781 388 8598 or
+1 800 835 6770 (toll free in the USA & Canada)

Europe, Middle East and Africa

E: cs-journals@wiley.com
T: +44 (0)1865 778315

Asia Pacific

E: cs-journals@wiley.com
T: +65 6511 8000

Japan (for Japanese-speaking support)

E: cs-japan@wiley.com
T: +65 6511 8010 or 005 316 50 480 (toll-free)

Visit our Online Customer Help available in 7 languages at www.wileycustomerhelp.com/ask

Print ISSN: 0003-8504

Online ISSN: 1554-2769

Prices are for six issues and include postage and handling charges. Individual-rate subscriptions must be paid by personal cheque or credit card. Individual-rate subscriptions may not be resold or used as library copies.

All prices are subject to change without notice.

Identification Statement

Periodicals Postage paid at Rahway, NJ 07065. Air freight and mailing in the USA by Mercury Media Processing, 1850 Elizabeth Avenue, Suite C, Rahway, NJ 07065, USA.

USA Postmaster

Please send address changes to *Architectural Design*, John Wiley & Sons Inc., c/o The Sheridan Press, PO Box 465, Hanover, PA 17331, USA

Rights and Permissions

Requests to the Publisher should be addressed to: Permissions Department John Wiley & Sons Ltd The Atrium Southern Gate Chichester West Sussex PO19 8SQ UK

F: +44 (0)1243 770 620

E: Permissions@wiley.com

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, scanning or otherwise, except under the terms of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency Ltd, Barnard's Inn, 86 Fetter Lane, London EC4A 1EN, UK, without the permission in writing of the Publisher.

Subscribe to Δ

Δ is published bimonthly and is available to purchase on both a subscription basis and as individual volumes at the following prices.

Prices

Individual copies:
£29.99 / US\$45.00
Individual issues on Δ App for iPad:
£9.99 / US\$13.99
Mailing fees for print may apply

Annual Subscription Rates

Student: £90 / US\$137 print only
Personal: £136 / US\$215 print and iPad access
Institutional: £310 / US\$580 print or online
Institutional: £388 / US\$725 combined print and online
6-issue subscription on Δ App for iPad: £44.99 / US\$64.99

Front cover: Brain activity that correlates with the experience of beauty. © haydenbird/Getty Images

Inside front cover: marcosandmarjan (Marcos Cruz and Marjan Colletti) and Guan Lee, Algae-Cellunoi, 9th ArchiLab, FRAC Centre, Orléans, France, 2013–14. © Marjan Colletti

Page 1: soma architecture, Operations of the Formless, 21er Haus, Museum Belvedere, Vienna, 2014. © Stefan Rutzinger and Kristina Schinegger / soma

05 / 2019



ARCHITECTURAL DESIGN

September/October

2019

Profile No.

261

Disclaimer

The Publisher and Editors cannot be held responsible for errors or any consequences arising from the use of information contained in this journal; the views and opinions expressed do not necessarily reflect those of the Publisher and Editors, neither does the publication of advertisements constitute any endorsement by the Publisher and Editors of the products advertised.



ABOUT THE
GUEST-EDITOR

Yael Reisner



Yael Reisner combines architectural practice with research, teaching and curatorial work. A native of Tel Aviv, she has a BSc in biology, but switched to architecture, finishing her studies in London at the Architectural Association (AA) and gaining her PhD from RMIT University, Melbourne. Her practice, Yael Reisner Studio, is committed to research-led projects, increasingly focusing on the experience of beauty in relation to human wellbeing and the built environment. She is also curator of the 5th Tallinn Architecture Biennale (TAB) 2019, which includes an exhibition, symposium and vision competition exploring the theme 'Beauty Matters: the Resurgence of Beauty' based on her thesis, book and research since 2014.

The book, *Architecture and Beauty: Conversations with Architects about A Troubled Relationship* (John Wiley & Sons, 2010), written with Fleur Watson, was also the catalyst for six symposia events at the Royal Academy of Arts, London; Venice Biennale; Lund University, Sweden; Southern California Institute of Architecture (SCI-Arc), Los Angeles; Pratt Institute, New York; and Tel Aviv University. Her original thesis research has since widened in scope to include disciplines such as neuroaesthetics, mathematics and neurobiology to understand beauty's relevance to human life and knowledge. Her research continues, seeking to explain the role of visual thinking and intuitive insight, in her quest to relate the enigma of beauty to the human sense of vision. This issue of *Δ* shares this interdisciplinary interest in beauty and its symbiotic relationship with architecture.

Reisner's public works have included *Take My Hand – Rights and Weddings* (Plaça de la Mercè, Barcelona, 2014), an installation exploring human rights and wellbeing that was produced by the Enric Miralles Foundation. *In The Mirror* explored the spatial experience of a pop music video. It was designed with Barnaby Gunning for the 'Tomorrow's Party' exhibition of digital art augmented by analogue artefacts curated by Shang Shang and held at The Orange in Taikoo Li Sanlitun, Beijing in 2015. In 2011 she was invited by the late Will Alsop to curate an exhibition at the Testbed1 Gallery in Battersea, London. 'Turning the Tables' explored the parameters of this everyday item, exhibiting 14 new tables. She is also planning a Gaetano Pesce retrospective at London's Design Museum.

Reisner has taught internationally since 2005, at SCI-Arc, Lund University, the AA in London, École Spéciale d'Architecture (ESA) in Paris, and the Confluence, Lyons. She was previously a MArch course coordinator and group tutor as well unit master of Diploma Unit 11 at the Bartlett School of Architecture, University College London (UCL). In 2017 she was a guest professor at the Peter Behrens School of Arts, University of Applied Sciences Düsseldorf. She is currently a PhD external examiner at RMIT's European hub in Barcelona. *Δ*



Mark Foster Gage Architects,
Geothermal Futures Lab,
Southern California Institute
of Architecture (SCI-Arc),
Los Angeles,
2018

An image of decay. Ten parafictional
mechanisms along the San Andreas Fault were
designed to extract sustainable geothermal
power. Ecological? Futuristic? Apocalyptic?
It is for the observer to read the mysterious-
looking image and its complex message.

INTRODUCTION

Yael Reisner

ARCHITECTURE AND BEAUTY

A SYMBIOTIC RELATIONSHIP

‘It is only shallow people who
do not judge by appearances. The mystery
of the world is the visible, not the invisible.’

Oscar Wilde,
The Picture of Dorian Gray, 1890¹

Why does beauty matter? Throughout most of the 20th century, in the visual arts and the humanities – including architecture, politics, psychology, poetry and music – beauty became a denigrated phenomenon, a taboo word. Yet the emotional experience of it has remained real, with people referring to it on a daily basis. This issue of *Δ* identifies its resurgence.

The most influential thinker on contemporary ideas of art and aesthetics, Immanuel Kant, writing in 1790, described aesthetic judgement as ‘disinterestedly free’ and beauty as ‘purposefulness without purpose’.² Four decades earlier, another German philosopher, Alexander Gottlieb Baumgarten, in his work *Aesthetica* (1750), had defined the modern use of aesthetics and subjectivity as associated terms, in that rejection of one reduces the other. Architecture’s aspiration to beauty was pre-eminent for thousands of years, triumphantly leading the visual arts until the 1920s when Early Modernism generated a significant new aesthetic. Architects’ troubled relationship with beauty³ began in the 1940s, when objectivity ruled – as captured by Mies van der Rohe’s statement on ‘objective limits’ and ‘no subjective licence’.⁴ Since then, architectural discourse has evolved, with short periods of questioning the dubious approach towards subjectivity, and longer periods of trusting objectivity. In time the status of beauty was eroded as it came to be associated with old-world, non-progressive values. The only two disciplines that continued to acknowledge beauty’s power in this period were mathematics and neuroscience, which have consequently contributed the most in recent times to our understanding of its relevance to human life and knowledge. Meanwhile, it seems that 100 years of neglect have reduced architects’ ability to explore the real depth of beauty. When asked to describe beauty in architecture, most refer to the Renaissance ideal of perfection, and some to an elegant line or a neat detail, without reference to beauty’s much deeper and enigmatic qualities.

Post-Digital Architecture, Human Judgement and Beauty

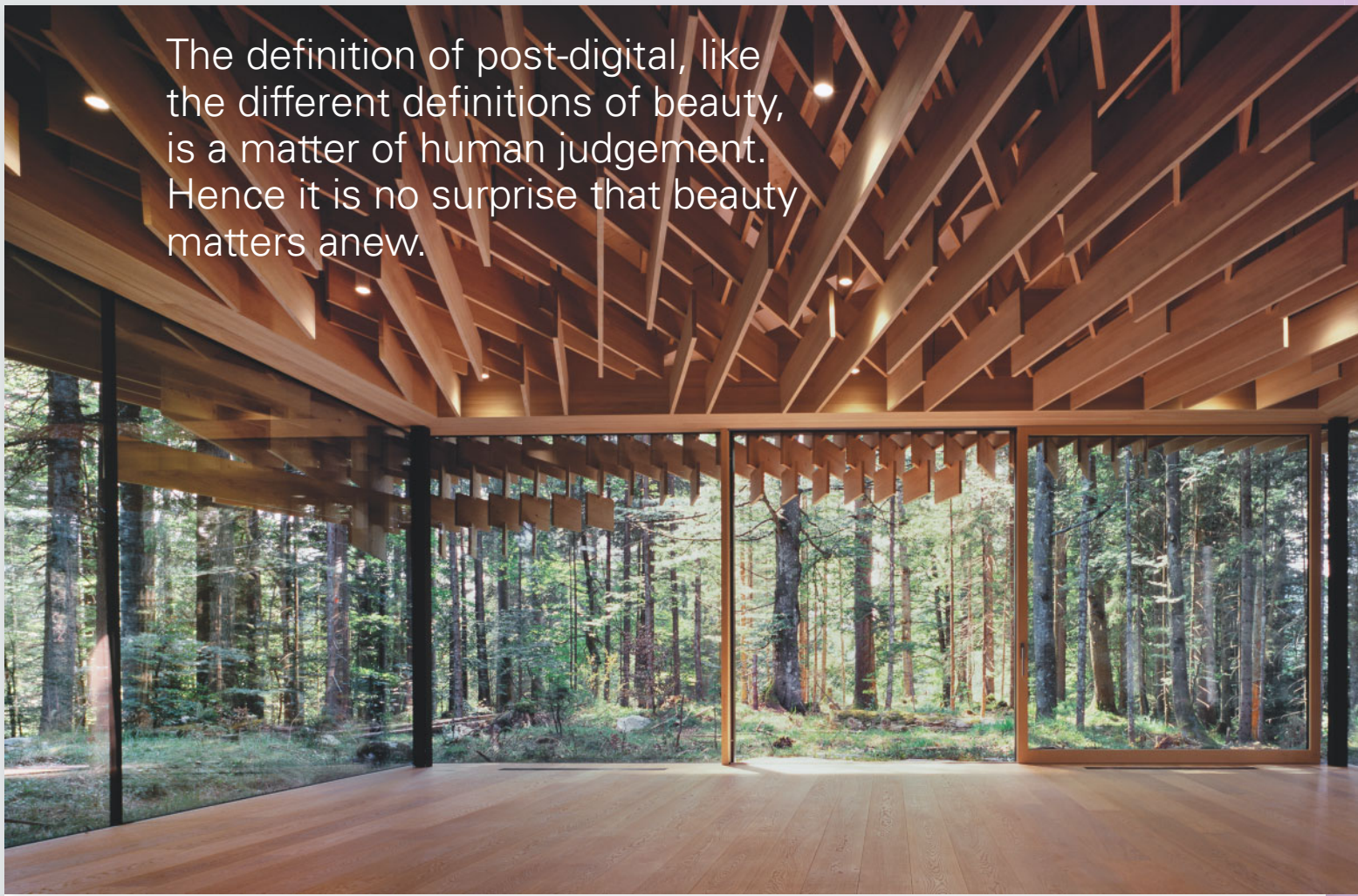
‘Beauty’ and the ‘post-digital age’ both rely on human judgement. The term ‘post-digital’ was first heard around the year 2000 in relation to music, as the novelty of computer-generated music faded. By 2006, visual art started to humanise digital technologies as a result of creative encounters between art, science, technology and human consciousness. By 2016 the post-digital became a category in architecture. The use of ‘post-’ is somewhat misleading, as digital artists’ interest as designers has evolved beyond the medium to the message, rather than abandoning digital exploration. A good example of these new aesthetics is Mark Foster Gage Architects’ *Geothermal Futures Lab* installation (2018): an independent, mysterious architectural entity, with great theatricality, that embraces today’s anthropocentric context.

Since the 1990s, digital architects have continued to influence architectural discourse – not only because of changes in fabrication (the evolution of CNC machines to 3D printers and automation), but also to establish meaning. Yet the term ‘post-digital’ brought a wider community of architects under this umbrella, who mostly use digital systems to process rather than generate design. One such is London-based Sam Jacob, who wrote in early 2017: ‘our aim has been to develop a post-digital approach to what drawing might mean or do for architecture’.⁵ The post-digital, though diverse stylistically, signals a departure from formal continuity, and a move towards an assembly of parts, as captured in the language of recent work by Japanese architect Kengo Kuma and by Copenhagen and New York practice Bjarke Ingels Group (BIG), is part of that broad category – diverse in the use of design tools, agendas and aesthetics – as expressed in their respective projects, the Wood/Pile meditation house near Munich in Germany (2019), and the Serpentine Pavilion in London (2016).



The architectural installation, which associates with the post-digital age, was a collaboration between the architects, SCi-Arc and the Yale School of Architecture. The parafictional laboratory, influenced by science fiction, includes a mysterious-looking entity, an object encased against decay with the same striking gold foil used to encase NASA satellites.

The definition of post-digital, like the different definitions of beauty, is a matter of human judgement. Hence it is no surprise that beauty matters anew.



Bjarke Ingels Group (BIG),
Serpentine Pavilion,
London,
2016

right: The space-defining garden wall is erected from extruded fibreglass frames stacked on top of each other, an assembly associated with the digital Discrete. Its post-digital language is designed to interact with light. The structure embodies multiple aspects: freeform yet modular yet sculptural; both transparent and opaque; both box and blob.



Kengo Kuma and Associates,
Wood/Pile,
Krun, Germany,
2019

left: A transitional scale between the large forest and small architecture. The structure's little twigs disperse the light filtering through the skylight, echoing the effect often experienced in a forest.

opposite bottom left: A yoga cabin at the Das Kranzbach spa hotel, built of local fir trees. Due to the assembly of parts – though totally non-digital – it is associated, like many of Kuma's projects, with the post-digital era.



The definition of post-digital, like the different definitions of beauty, is a matter of human judgement. Hence it is no surprise that beauty matters anew. It is reflective of a cultural shift from an interest in what is categorised as objective, into trust in the role of subjectivity; of a fascination supported by new knowledge emanating from different disciplines. This change in position invites and unleashes new inquiries into both subjectivity and beauty.

This issue of Δ brings together an interdisciplinary set of contributors. First, three scholars explain why beauty matters: Semir Zeki (pp 14–19) and Robbert Dijkgraaf (pp 20–25), respectively professors of neuroaesthetics and of mathematical physics, followed by Graham Harman (pp 26–9), a professor of philosophy, who comes to beauty's defence and stresses the importance of reviving notions of it in contemporary discourse. Then, 13 architects and partnerships – all influential academics and practitioners – reflect on the resurgence of beauty.

New Findings in Neuroscience vs Old Cultural Bias

Some people associate knowledge gathering with browsing the Internet and reading books. Back in 1978, Zeki identified the importance of vision in acquiring knowledge of the world around us.⁶ It is the most efficient mechanism to gather knowledge infinitely, thus our brain reality is our only reality.

Humans are truly visual creatures: a quarter of the human brain is the visual brain. Seeing is not a passive impression (such as an image on a camera's film), because the retina is responsible for only the initial stage of seeing: data gathering. A complex system extends from the retina to the brain's cerebral cortex, where the visual brain is mostly located, and is responsible for seeing, judging and interpreting what we see, all pretty much simultaneously.⁷

However, as already mentioned, throughout the 20th century our sense of vision has become the most slandered of the human senses, and extensively discredited. This was witnessed, for example, in the mid-1990s by the popularity of Juhani Pallasmaa's critique of the Western ocular-centric tradition, expressed through the success of his book *The Eyes of the Skin: Architecture and the Senses*, published in 1996 (reprinted 2005).⁸ Titles in the book capture his approach well, for example: 'The Narcissistic and Nihilistic Eye', and 'Retinal Architecture and the Loss of Plasticity'. Terms such as 'retinal art' and 'retinal architecture' were popularised in the 1950s by Marcel Duchamp, who dismissed as passive art that appeals mainly to the eye.

The Desire for Beauty

The mathematician Ron Aharoni claims that mathematicians share with poets a desire to engage with beauty, which leads them to new knowledge.⁹ Lisa Samuels, Professor of English and Drama at Auckland University, explains: 'Beauty [in poetry] is a non-conceptual way of knowing. We have developed, implicitly, a sense of the non-conceptual in artistic beauty ... in fact ... what beauty "knows": that knowledge is also – perhaps most importantly – what we do not yet know.'¹⁰

Zeki wrote in 1999 that painters work and re-work until an effect is achieved that pleases them – their own brains; and if in the process it pleases others, 'they have understood something general about the neural organisation of the visual

pathways that evoke pleasure, without knowing anything about the details of that neural organisation or indeed knowing that such pathways exist at all'.¹¹ That observation led to one of Zeki's famous phrases, one that inspired many: 'Most painters are also neurologists.'¹²

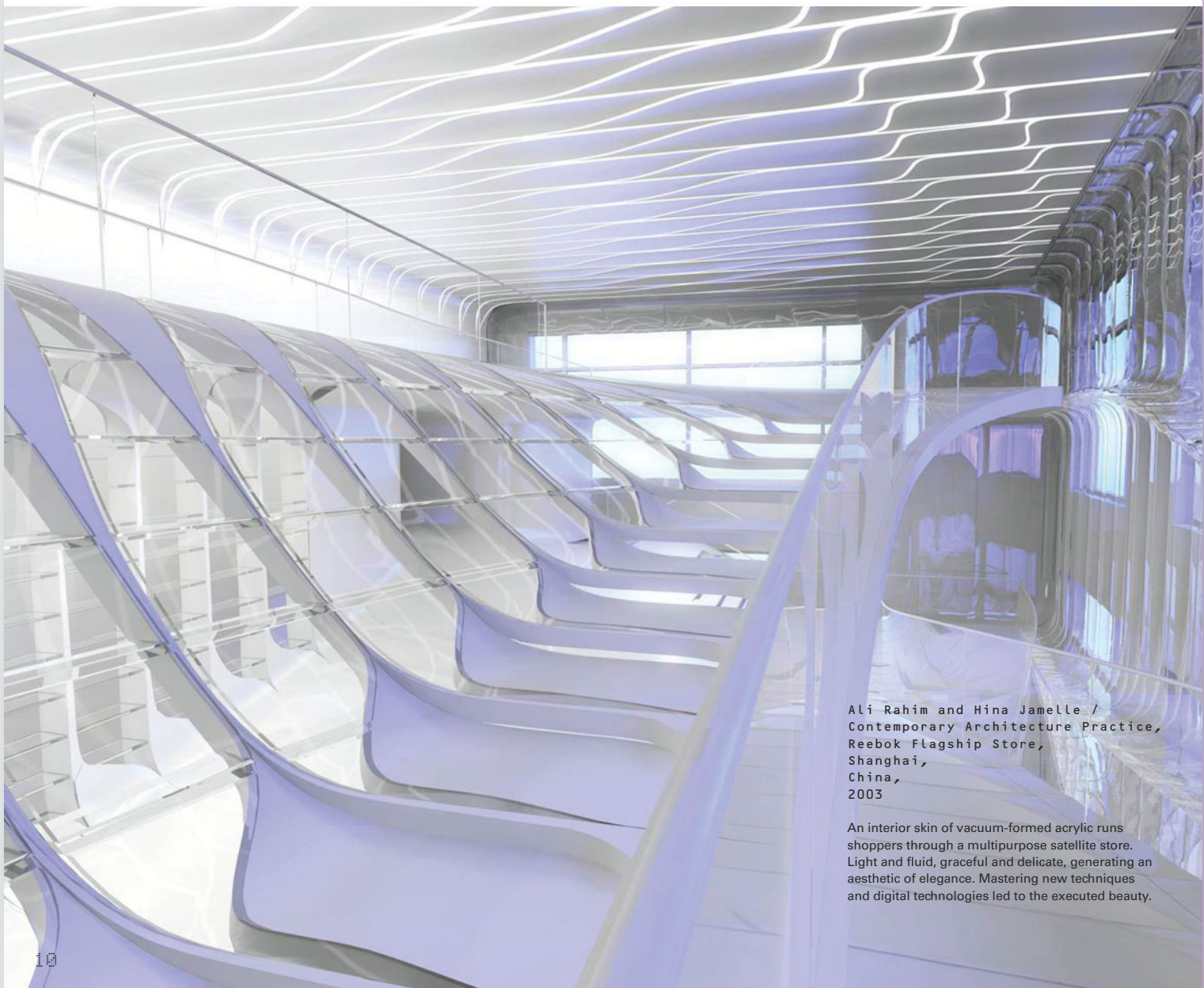
With the same logic, one concludes that brilliant architects know how to probe the human mind with design techniques that are unique and known to them, as they intuitively understand the visual pathways that evoke pleasure. Ron Arad's chair, *Bodyguard* (2009), is a classic example of Zeki's description, having been mastered through design and making, as Ali Rahim and Hina Jamelle's Contemporary Architecture Practice achieved through mastering digital techniques and technologies. As digital architects, they were the first to express an aspiration to beauty and aesthetic pleasure in design, culminating in the *Elegance* issue of *AD* (2007), which they guest-edited.¹³

Fortunately, the cultural bias that has undermined our sense of vision could not overrule primal brain activity, which includes parts of our visual brain. Thus, during the architectural design process, we continuously sift to capture the better looking, and reject what does not look so good. No wonder the capacity to produce an aesthetic experience is the yardstick for the appreciation of architecture.



Ron Arad,
Bodyguard,
2009

A chair/non-chair that captures a tender body gesture. A masterpiece in stainless steel, where some of its volume was 'scooped out' to create an ambiguous, shiny, baffling inner reflective space within the elegant silhouetted piece. As the spectator walks around it, each viewing angle reveals a completely different-looking object.



Ali Rahim and Hina Jamelle /
Contemporary Architecture Practice,
Reebok Flagship Store,
Shanghai,
China,
2003

An interior skin of vacuum-formed acrylic runs shoppers through a multipurpose satellite store. Light and fluid, graceful and delicate, generating an aesthetic of elegance. Mastering new techniques and digital technologies led to the executed beauty.

The Desire for Poetics

While the term 'beauty' remained taboo, poetics in architecture was repeatedly embraced. The French philosopher Gaston Bachelard's inspiring *The Poetics of Space*¹⁴ arrived to fill the void of 1960s architectural discourse; and in 1979 the Norwegian architect and theorist Christian Norberg-Schulz offered his interpretation of German philosopher Martin Heidegger's phenomenology, as applied to architecture.¹⁵

Pallasmaa has expanded on this legacy since 1995, through his many books on poeticised imagery and the pursuit of poetics in architecture, while expressing trust in linking the creative process with an existentialist view of the world, questioning the architect's deliberate visual intention (along the visual brain mechanism), leading to poetics in architecture.¹⁶ Maurice Merleau-Ponty's description, 'The senses translate each other without any need of an interpreter, and are mutually comprehensible without intervention of any idea',¹⁷ is what Pallasmaa believes in. Zeki, on the other hand, explains how 'the Idea ... is merely the external representation of the concept that is in the brain, the concept that it has derived from ephemeral sense data. It is in fact the product of the artist.'¹⁸

Leon van Schaik's engagement with poetics in architecture from 2002 onwards culminated in his book *Practical Poetics in Architecture* (2015),¹⁹ on how architects might invoke poetics in designing real projects. Meanwhile, digital architects such as Marjan Colletti have extensively engaged in digital poetics;²⁰ as have Roland Snooks in his *Floe* installation (2018), and Space Popular in their *The Glass Chain* installation (2018) – diverse experiences of beauty/poetics, generated by visual ideation.



Roland Snooks,
Floe,
National Gallery of Victoria, Melbourne,
Australia,
2018

The installation explores the architectural implications of algorithmic design through robotic 3D fabrication. The translucent skin of the tower comprises 70 unique overlapping semi-clear polymer panels printed by robot. It draws on the atmospheric effects of the Antarctic landscape in response to a sound work by Philip Samartzis.



Space Popular,
The Glass Chain,
Sto Werkstatt,
London,
2018

Space Popular wrest glass from its Modernist confines, and realised a kaleidoscopic glass construction that uses it to enhance, alter and question human perception of space across physical and virtual realities. The installation is inspired by the legacy of the infamous Glass Chain Letters (1919–20) by the Expressionists, led by Bruno Taut.

Frank Gehry,
Guggenheim Museum Bilbao,
Bilbao,
Spain,
1997

The museum is an example of turn-of-the-century architecture as art that instantly registered recognition within the collective public consciousness. Its overwhelming atrium is characterised by its spatial non-linear dynamic complexity, with a grandeur that takes all visitors by surprise. A heroic interior wrapped by a seductive glamorous exterior.