

Estética virtual em Arquitetura:  
Desenhar com realidades mistas.  
Virtual Aesthetics in  
Architecture: Designing in Mixed  
Realities

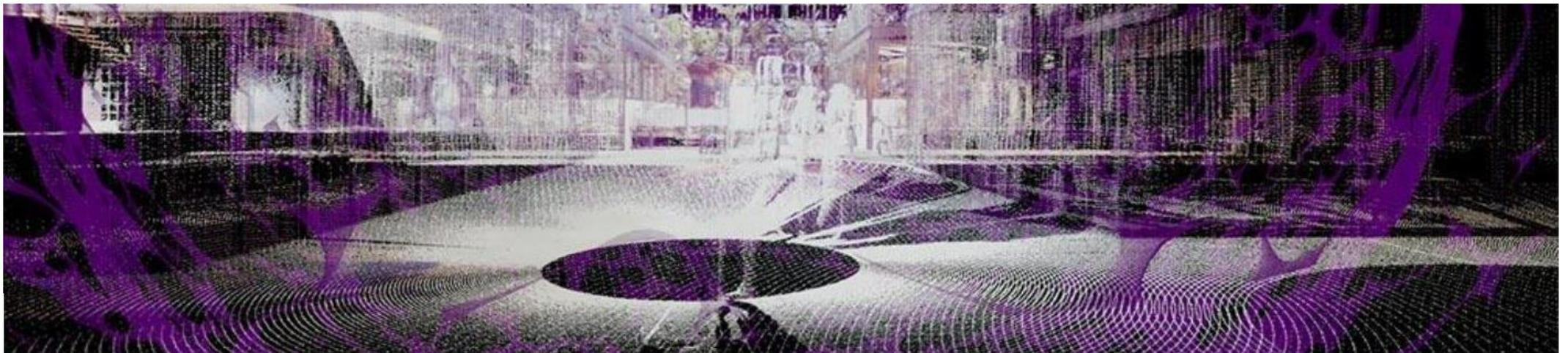
SARA ELOY

Iceland  
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Fundação para a Ciência e a Tecnologia  
AGÊNCIA DE CIÊNCIA, TECNOLOGIA E INOVAÇÃO

Trienal  
2019

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## Summary

**THE PROJECT “ARTIFICIAL REALITIES: VIRTUAL AS AN AESTHETIC MEDIUM IN ARCHITECTURAL IDEATION”, WAS DEVELOPED IN THE SCOPE OF LISBON ARCHITECTURE TRIENNALE 2019.**

**“ARTIFICIAL REALITIES” IS FRAMED BY THE CONFRONTATION BETWEEN RATIONALITY AND EFFICIENCY RELATED TO VIRTUAL TECHNOLOGIES APPLIED TO THE ARCHITECTURAL DESIGN PROCESS AND THE POETICS RELATED TO THE AESTHETICS IN ARCHITECTURE. THE EXPERIENCE OF ARCHITECTURAL SPACE AND THE STATE OF CONTEMPLATION AND DELIGHT OF THE ARCHITECTONIC EXERCISE WILL HAVE A DIGITAL MATERIALIZATION.**

**THE PROJECT EXPLORED THE WAYS IN WHICH VIRTUAL REALITY TECHNOLOGIES CAN ENABLE DESIGNERS TO CREATE IMMERSIVE SPACES THAT DRIVE THE USERS TO ESCAPE TO OTHER REALMS IN CUTTING-EDGE AESTHETIC EXPERIENCES.**

## Activities

**\_ AN EXHIBITION HELD IN ISCTE FROM THE 14<sup>TH</sup> TO THE 18<sup>TH</sup> OF OCTOBER. THIS HAS BEEN SELECTED AS AN ASSOCIATED PROJECT OF LISBON ARCHITECTURE TRIENNALE 2019. WE SHOWCASED AN INTERNATIONAL GROUP OF PROJECTS BY LEADING PRACTITIONERS THAT HAVE A SOLID BODY OF WORK ON DIVERSE ISSUES RELATED WITH ARCHITECTURAL DESIGN PROCESSES USING VR AND AR TECHNOLOGIES.**

**\_ AN INTERNATIONAL SEMINAR ON TOPICS OF COMMON INTEREST WAS ORGANISED DURING THE EXHIBITION. TALKS BY INVITED LEADING RESEARCHERS AND DESIGNERS WERE GIVEN IN THE SYMPOSIUM. A CALL FOR PAPERS GUARANTEED A WIDE SPECTRUM OF INTEREST AMONG THE FIELD.**

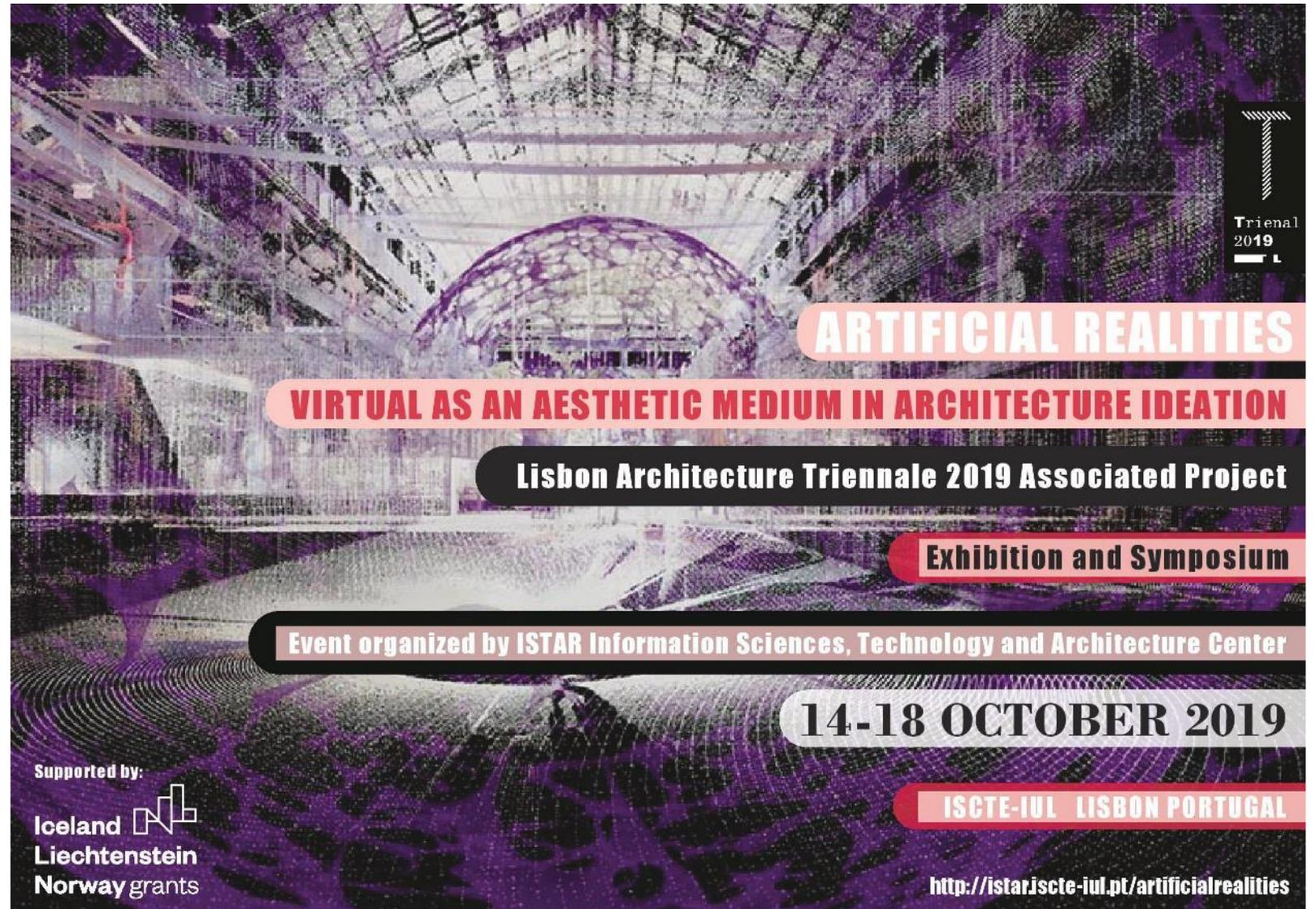
**\_ RESEARCH ON USING VR AND AR IN THE IDEATION STAGES OF ARCHITECTURE DESIGN AND USING IT WITH FINAL-USER TO ENGAGE THEM IN ARCHITECTURE AND URBAN DESIGN DISCUSSIONS AS IN PARTICIPATORY DESIGN PROCESSES**

**\_ BOOK PUBLICATION “VIRTUAL AESTHETICS IN ARCHITECTURE. DESIGNING IN MIXED REALITIES”, ROUTLEDGE**

## [EXHIBITION AND SYMPOSIUM]

THE EVENT WAS ATTENDED BY RESEARCHERS AND PRACTITIONERS FROM 12 COUNTRIES FROM EUROPE, NORTH AMERICA, ASIA AND OCEANIA (NORWAY, DENMARK, NETHERLANDS, BELGIUM, GERMANY, GREECE, PORTUGAL, TURKEY, SINGAPORE, AUSTRALIA, UNITED STATES OF AMERICA AND CANADA).

THE EXHIBITION WAS ATTENDED BY SEVERAL VISITORS, AMONG ARCHITECTS AND OTHER ARTISTS, ATTRACTED BY THE TRIENNALE'S DISSEMINATION, ARCHITECTURE AND COMPUTER SCIENCES' STUDENTS, AS WELL AS SECONDARY SCHOOLS CLASSES



**ARTIFICIAL REALITIES**

**VIRTUAL AS AN AESTHETIC MEDIUM IN ARCHITECTURE IDEATION**

**Lisbon Architecture Triennale 2019 Associated Project**

**Exhibition and Symposium**

**Event organized by ISTAR Information Sciences, Technology and Architecture Center**

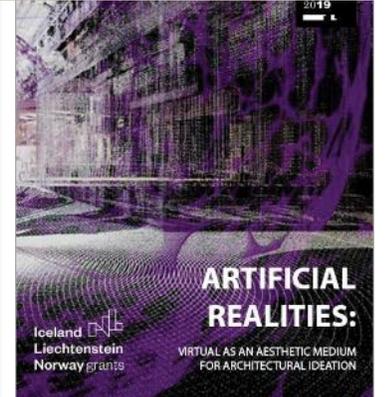
**14-18 OCTOBER 2019**

**ISCTE-IUL LISBON PORTUGAL**

<http://istar.iscte-iul.pt/artificialrealities>

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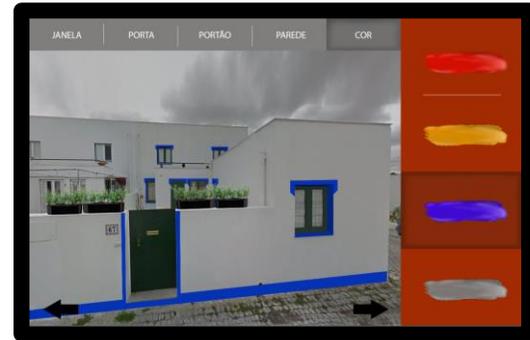


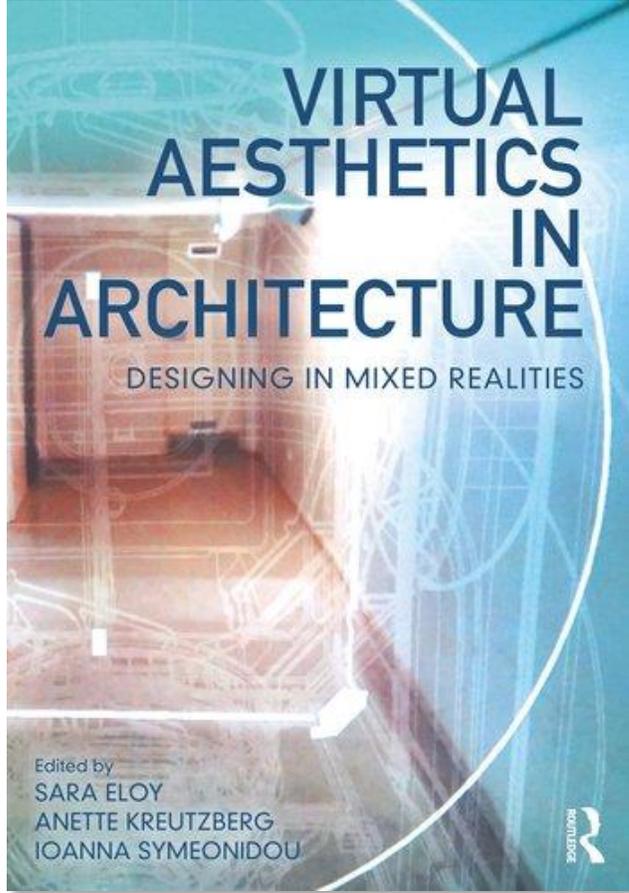
## [MYCHANGES]

DEVELOPMENT OF A MOCKUP THAT ENABLES THE GENERATION OF CUSTOMIZED DESIGN SOLUTIONS FOR THE FAÇADE OF HOUSES.

TESTING THE APP AND VISUALIZATION MODES:

- **USER SATISFACTION REGARDING THE CUSTOMIZATION POSSIBILITY THAT IT OFFERS TO THE DESIGN OF THE FAÇADE OF THEIR HOUSE**
- **USER SATISFACTION REGARDING THREE MODES OF VISUALIZATION OF THE FINAL DESIGNS OF THE FAÇADE:**
  - **NON-IMMERSIVE SCREEN-BASED VISUALIZATION USING A TABLET - FINAL DESIGN IS VISUALIZED AS A STATIC IMAGE;**
  - **SEMI-IMMERSIVE VISUALIZATION USING A SMART PHONE - FINAL DESIGN CAN BE SEEN BY A 360° RENDER OF THE SITE;**
  - **FULLY IMMERSIVE VISUALIZATION USING A HMD (OCULUS RIFT) - FINAL DESIGN CAN BE FREELY NAVIGATED BY THE USER.**





EDITORIAL.....

Sara Eloy, Anette Kreuzberg, Ioanna Symeonidou

PART 1 – INTRODUCTION: THE VISUAL AESTHETICS OF MIXED REALITY

Chapter 1. Mixed realities in Architecture: Aesthetics of Hybrid Space  
Henri Achten [Czech Technical University of Prague]

Chapter 2. Models and Fictions: The Aesthetics of Hybrid Space  
Federico Ruberto [Form Axioms, Singapore]

Chapter 3. Cybernetic Aesthetics: The Aesthetics of Hybrid Space  
Helmut Kinzler [Zaha Hadid VR]

Chapter 4. Wish You Were Here: The Aesthetics of Hybrid Space  
Sean Pickersgill [University of Southern California]

Chapter 5. How Architects Are Using Immersive Technology Today, and Projections for the Future  
Helmut Kinzler, Daria Zolotareva, Risa Tada [Architecture Inc], United States of America

PART 2 – EXPERIENCING SPACE

Chapter 6. The Aesthetics of Hybrid Space  
Rosana Rubio [University of Tampere]

Chapter 7. The Aesthetics of Hybrid Space  
MVRDV Virtual Space  
Maria Lopez [MVRDV], The Netherlands

Chapter 8. The Aesthetics of Hybrid Space  
The Digital Archive  
Eva Castro, Federico Ruberto [Singapore University of Technology and Design], Singapore

Chapter 9. The Aesthetics of Hybrid Space  
Jason Lim, Jane Chua, Deniz Mani Clarke, Nabila Larasati Pranoto, Sirus Gardens - the building  
Sean Pickersgill [University of Southern California], Australia

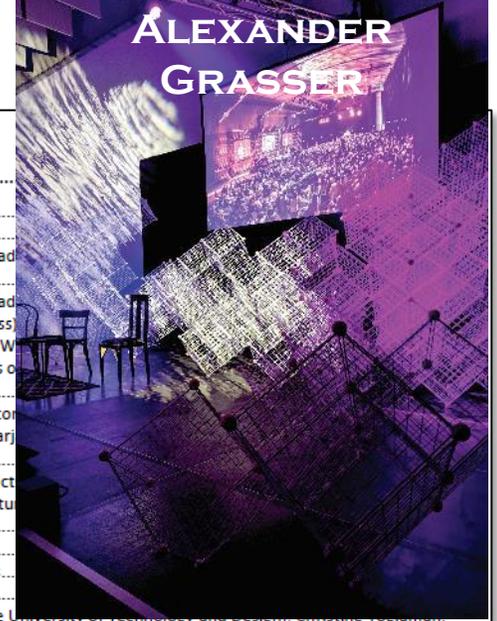
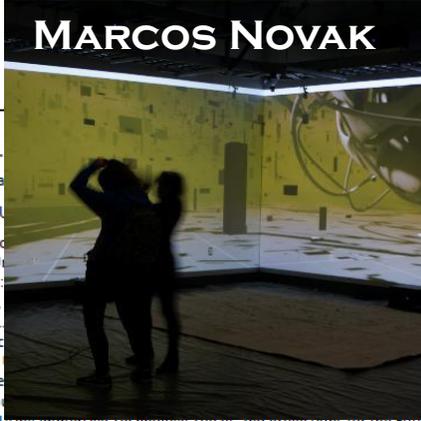
Chapter 10. The Aesthetics of Hybrid Space  
Form Axioms: "the politics of mapping"  
Eva Castro, Federico Ruberto [Singapore University of Technology and Design], Singapore

Chapter 11. The Aesthetics of Hybrid Space  
Jason Lim, Jane Chua, Deniz Mani Clarke, Nabila Larasati Pranoto, Sirus Gardens - the building

Chapter 12. The Aesthetics of Hybrid Space  
Sean Pickersgill [University of Southern California], Australia

Chapter 13. The Aesthetics of Hybrid Space  
Form Axioms: "the politics of mapping"  
Eva Castro, Federico Ruberto [Singapore University of Technology and Design], Singapore

Chapter 14. The Aesthetics of Hybrid Space  
Jason Lim, Jane Chua, Deniz Mani Clarke, Nabila Larasati Pranoto, Sirus Gardens - the building



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Obrigada

**SARA ELOY**

