Downloaded by [Politecnico di Milano Bibl] at 05:52 11 September 2017

designfornext.org

## **DESIGN FOR NEXT**

Proceedings of the 12th European Academy of Design Conference. Sapienza University of Rome, 12-14 April 2017 supplement of The Design Journal

edited by Loredana Di Lucchio, Lorenzo Imbesi, Paul Atkinson









Downloaded by [Politecnico di Milano Bibl] at 05:52 11 September 2017





© 2017 Sapienza University of Rome and Article Authors

edited by Loredana Di Lucchio, Lorenzo Imbesi, Paul Atkinson

Design for Next.

Proceedings of the 12th European Academy of Design Conference. Sapienza University of Rome, 12-14 April 2017.

Abingdon: Taylor & Francis Group

Published by Informa UK Limited, trading as Taylor & Francis Group.

ISBN: 978-1-138-09023-1

All included contributions remain the property of authors, editors and institutes.

Papers are Open Access articles distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

pages cm 21.0 x 29.7

## **Contents**

## **EDITORIAL**

SV	Conference track contents
SXXV	Foreword Paul Atkinson
SXXVI	Introduction: Designing a Design Conference Loredana Di Lucchio, Lorenzo Imbesi
SXXVIII	Keynote speakers
SXXIX	About
SXXX	People
SXXXII	Conference Tracks & Track Chairs
S1	Design for Next Challanges Loredana Di Lucchio
S9	Design for Design Lorenzo Imbesi

## CONFERENCE TRACK CONTRIBUTIONS

S16	Design for Next Aesthetics
S411	Design for Next Economy
S732	Design for Next Education
S1558	Design for Next Environment
S1978	Design for Next Health
S2592	Design for Next Industry
S2858	Design for Next Society
S3643	Design for Next Technology
S4171	Design for Next Thinking
S4671	Workshops
S4726	Posters

## **Conference Track contributions**

## DESIGN FOR NEXT AESTHICS

S16	A Framework For Product Design Based On Semantic Attribution Process Itsaso Gonzalez, Este Val, Daniel Justel, Ion Iriarte
S28	A Semiotic Rosetta Stone: Developing a Designer-centric Meta-language of Pragmatic Semiotics Dave Wood
S38	Aesthetic Justice. Design for a blind-spot culture Peter Buwert
S49	Aesthetics in Design Semiotics Research. Developing foundations to better comprehend cultural habits and codes in bottom-up design processes Felipe Domingues, Salvatore Zingale, Dijon De Moraes
S63	Aesthetics of futures. Shaping shared visions of tomorrow  Manuela Celi, Elena Formia
S77	An Art-based research laboratory translated into a Critical Design strategy Raphaële Bidault-Waddington
S89	Beautiful interfaces. From user experience to user interface design  Letizia Bollini
S102	Building networks for knowledge exchange, and design strategies for climate futures.  Henry Mainsah, Andrew Morrison, Håkan Edeholt
S110	Can Timelessness through Prototypicality Support Sustainability? A Strategy for Product Designers Rachel Flood Heaton, Deana McDonagh
S122	Contested Surfaces. Aesthetics of Colonization for Urban Coexistence Adriana Cuéllar, Marcel Sanchez Prieto
S134	Creative Interpretation in Web Design Experience Johanna Silvennoinen, Rebekah Rousi, Laura Mononen
S146	Design fiction, culture and climate change. Weaving together personas, collaboration and fabulous futures Andrew Morrison, Alittea Chisin
S160	Design for Next Year. The Challenge of Designing for Material Change Ben Bridgens, Debra Lilley
S172	Entropy: Unpacking the form through post digital making Evelina Kourteva, Dermott Mc Meel
S184	Exploring aesthetics through digital jewellery  Maarten Versteeg, Johanna Kint
S196	Future Aesthetics of Technology; context specific theories from design and philosophy of technology Wouter Eggink, Jeroen Snippert
S209	House and Yacht: the Aesthetics of the Interior as a Link between Different Sectors Mariateresa Campolongo
S219	Living on the Edge: design artefacts as boundary objects Michael Pierre Johnson, Jen Ballie, Tine Thorup, Elizabeth Brooks
S236	"Make it beautiful". An old request with difficult academic answers Silvia D. Ferraris, Lucia Rampino, Venere Ferraro
S249	Metamorphosis of design. The aesthetics of the dark side Francesca La Rocca, Chiara Scarpitti

S492

S261	Metaphorical spaces. The art used by designers to explore, experiment and express concepts of Interiors Raffaella Trocchianesi, Matteo Pirola
S273	Micronarratives as the form of contemporary communication Simona Venditti, Francesca Piredda, Walter Mattana
S283	Network Time Where it Counts. Temporality and Critical Approaches to Infrastructure Tom Schofield, Gabriella Arrigoni
S294	Reimagining cinema: searching for an aesthetic of interaction design through cinema Nicolas Marechal, Joel Karamath
S304	Returning the aesthetics to the heart of the design process. On the conflict between social design and product beauty Mario de Liguori
S317	Self-organized matter: design and primitive future of the eidetic categories Fabrizio Gay, Irene Cazzaro
S332	Semiotics and design: Towards an aesthetics of the artificial Matthew Holt
S342	Smart Solutions, "Smart Aesthetics"? Anna Cecilia Russo, Marinella Ferrara
S354	The Aesthetics of The Artificial – Critical Design's Lost Dominion  John Knight
S365	The design of surfaces, between empathy and new figuration Spartaco Paris
S375	The New Aesthetic of DIY-Materials Camilo Ayala-Garcia, Valentina Rognoli
S390	Who's in charge? End-users challenge graphic designers' intuition through visual verbal co-design Simone Taffe
S401	Wrapping Cultural Values: using Social Embodiment as Stimulus in Designs Lizette Reitsma, Elise van den Hoven
	DESIGN FOR NEXT ECONOMY
S411	Adding plus value to development aid projects through design strategy: experiences from Pakistan Gwendolyn Kulick
S424	Beyond customer satisfaction. Supporting organisational change through Service Design.  A case study in the insurance industry Ion Iriarte, Alazne Alberdi, Elisabeth Urrutia, Daniel Justel
S435	Big Data: Understanding how Creative Organisations Create and Sustain their Networks Fraser Bruce, Jackie Malcolm, Shaleph O'Neill
S444	Co-creating finances. A new perspective on designing for the financial world.  Santiago de Francisco Vela
S457	Design and Academic Entrepreneurship. The Role of Design in Spin-off Processes  Anna Sinell, Franziska Brodack, Sebastian Denef
S469	Design and design management in the incubation phase of high-tech start-ups Claudia Acklin, Andres Wanner
S479	Design-driven innovation: Making meaning for whom?  Heleen de Goey, Per Hilletofth, Lars Eriksson

Designing for the next (Circular) Economy. An appeal to renew the Curricula of Design Schools Michael Leube, Dominik Walcher

S502	Discussing a New Direction for Design Management through a New Design Management Audit Framework Fulden Topaloğlu, Özlem Er
S522	Hacking the organization: Organizational Transformation by Design  Hans Kaspar Hugentobler
S531	Involving stakeholders towards service implementation. Co-designing change of practices using a visual language Tim Overkamp, Freya Ruijs
S550	Materiality Matters: Exploring the use of design tools in innovation workshops with the craft and creative sector in the Northern Isles of Scotland Cara Broadley, Katherine Champion, Lynn-Sayers McHattie
S566	New Design Thinking Tools for the Next Generation of Designer-Entrepreneurs Sara Colombo, Cabirio Cautela, Lucia Rampino
S581	Raising new opportunities for the Next Economy by exploring variable user needs for Computational Co-Design Viktor Malakuczi
S589	Rethinking the Fashion Collection as a Design Strategic Tool in a Circular Economy  Ulla Ræbilda, Anne Louise Bang
S600	Service Design as a Cultural Intermediary. Translating cultural phenomena into services Claire Dennington
S614	Service design as the ground for alternative social and economic scenarios  Maria Antonietta Sbordone, Nicola Morelli
S622	Setting-up a Design Factory within a Creative Science Park @Aveiro Region Teresa Franqueira, Cátia Pereira, Raul Pinto, Gonçalo Gomes
S635	The choice of design. From businesses' conditions to businesses' attitudes  Mariana Fonseca Braga
S647	The Commodity of Trade in Contemporary Design Giovanni Innella, Paul Anthony Rodgers
S669	THE FUTURE OF DESIGN SUPPORT: What Can We Learn From Design Support Experience in the UK, Estonia and Turkey? Melehat Nil Gulari, Ruth-Helene Melioranski, Ozlem Erc, Chris Fremantle
S681	The Value of Agile Methods in Designing for Behavioural Change: A Case Study Dirk Ploos van Amstel, Martine Heemskerk, Reint Jan Renes, Sander Hermsen
S691	The Value of Design in Innovation: results from a survey within the UK Industry Ricardo J Hernandez, Rachel Cooper, Bruce Tether, Emma Murphy
S705	Universities' experience with brand. The role of design in managing university communication and branding. Veronica Dal Buono, Fulvio Fortezza
S721	Why do I love you Vaatelainaamo? Analysis of motivations, barriers and opportunities in a Finnish service for sharing clothes Rosana Aparecida Vasques, Mikko Koria, Maria Cecilia Loschiavo dos Santos
	DESIGN FOR NEXT EDUCATION
5732	A contemporary didactics of innovation in product design. Grip Factors identification and

- A contemporary didactics of innovation in product design. Grip Factors identification and evaluation *Marco Mancini*
- S745 A conversation with material Nicolai de Gier
- S754 A Design Thinking approach to introduce entrepreneurship education in European school curricula Ester Val, Itsaso Gonzalez, Ion Iriarte, Amaia Beitia, Ganix Lasa, Maite Elkoro

S767	Fernando Rojas, Stuart English, Robert Young, Nicholas Spencer
S781	A dialogical model for studio critiques in Design Education  Gaia Scagnetti
S792	A Future Scenario for a Methodological Approach applied to PhD Design Research.  Development of an Analytical Canvas Violeta Clemente, Katja Tschimmel, Fátima Pombo
S803	A Multilevel Approach for Social Transformations and its Implications on Service Design Education. Nicola Morelli, Amalia De Götzen
S814	Advanced Design as a paradigm for design education: learning systems within its platforms and practices Roberto Iñiguez Flores, Ruth León Morán
S822	Algorithmic Futures. The Analog Beginnings of Advanced Parametric Design in First Year Studios Patrick Sean Rhodes
S835	An Interdisciplinary Design Education Framework  Hye-Jin Nae
S848	Best Practices in Design Education Leads to a New Curriculum  Ana Thudichum Vasconcelos
S859	Creative puzzlement: how deconstructing elements of object facilitates industrial design student's imagination Neil Smith, Shiro Inoue, Nick Spencer, Andy Tennant
S875	Culture as a design "next": Theoretical frameworks to guide new design, development, and research of learning environments Tutaleni I. Asino, Lisa A. Giacumo, Victoria Chen
S886	Dealing with wicked problems, in messy contexts, through prototyping Bo Westerlund, Katarina Wetter-Edman
S900	Design as a process tool of collaborative and multidisciplinary learning in society  João Bernarda, Ana M. Ferreira, Carlos Silva, Inês Queiroz
S915	Design Culture in school. Experiences of design workshops with children Fabrizio Pierandrei, Elena Marengoni
S927	Design for social change and design education: Social challenges versus teacher-centred pedagogies Nicos Souleles
S937	Design for Social Sustainability. An educational approach for insular communities  Valentina Vezzani, Susana Gonzaga
S952	Design ResearchScape. A visual exploration of Design Research publications  Stefano Perna
S964	Design Thinking for Textiles: let's make it meaningful Louise Valentine, Jen Ballie, Joanna Bletcher, Sara Robertson, Frances Stevenson
S977	Design Thinking: A New Road Map In Business Education Gözde Çeviker-Çınar, Gökhan Mura, Melike Demirbağ-Kaplan
S988	Designing a cultural event as an inclusive educational activity  Davide Fassi, Agnese Rebaglio, Annalinda De Rosa
S1000	Designing Design Education. An articulated programme of collective open design activities  Luisa Collina, Laura Galluzzo, Stefano Maffei, Vanessa Monna
S1014	Designing more responsible behaviours through Design Education: Reflections on a Brazilian pilot experience in Social Innovation for Sustainability Viviane G. A. Nunes
S1026	E-LEARNING AND DESIGN PRACTICE. Tools and methods for professional learning of strategic design approach. Arignna Vianati, Luca Fois, Michele Melazzini, Xue Pei, Francesco Zurlo

S1037	Facebook as a Boundary Object in Industrial Design Studio. A SoTL Study Işıl Oygür, Selen Devrim Ülkebaş
S1048	Flourishing in graphic design education: incorporating Ubuntu as a curricular strategy. K.A. Chmela-Jones
S1058	From a master of crafts to a facilitator of innovation. How the increasing importance of creative collaboration requires new ways of teaching design. Andrea Augsten, Moritz Gekeler
S1072	Getting Creative Again. Getting Creative Again  Josiena Gotzsch
S1080	Human and Technological Dimensions of Making in FabLab Iván Sánchez Milara, Georgi V. Georgiev, Jukka Riekki, Jani Ylioja, Mikko Pyykkönen
S1093	Ikebana: A Collaborative Design Pedagogy Rachel Kelly
S1106	Infusing management education with design to foster resilience, adaptability and flexibility Noemi Sadowska, Lorna Dallas-Conte
S1118	Interrogating Futures in Industrial Design Education Saliha Türkmenoğlu Berkan, Özlem Er, Wolfgang Jonas
S1130	Is Design a Plus? A dilemma of disciplines when implementing design into academic education Søren Bolvig Poulsen, Peter Vistisen, Sune Klok Gudiksen
S1140	Learning Architectural Design. Material and Immaterial Aspects.  Gerlinde Verhaeghe
S1154	Making Sense: Harnessing Communication through Prototyping Giovanni Innella, Paul A. Rodgers
S1167	Material Tinkering. An inspirational approach for experiential learning and envisioning in product design education Stefano Parisi, Valentina Rognoli, Marieke Sonneveld
S1185	Materials & Manufacturing Methods selection in product design: Experiences in undergraduate programs Aline Souza, Rita Almendra, Lia Krucken
S1197	On Context, Concepts and Research: An Approach in Basic Design  Dilek Akbulut, Hatice Kesdi
S1212	On The Teachers Role in Interactive Prototyping  Jussi Mikkonen
S1224	PBL 2.0. Interdisciplinary, multicultural transformative sustainable education for design students Elad Persov, Roshni Udyavar Yehuda, Ruti Kantor, Barak Pelman
S1241	Preparing design students for the market: an initial investigation on the required knowledge and skills for graphic designers in Brazil Paulo Roberto Nicoletti Dziobczenski, Anamaria Amaral Rezende Galeotti
S1250	Reconstructing the critique. Using inclusive formative feedback in face-to-face and online communities of practice to improve knowledge acquisition in design education Lucia Miceli, Lynette Zeeng
S1260	Reflexive Practices for the Future of Design Education: An Exercise in Ethno-Empathy Manu J. Brueggemann, Angelika Strohmayer, Matthew Marshall, Nataly Birbeck, Vanessa Thomas
S1270	Rethinking the Design Studio-Centered Architectural Education. A Case Study at Schools of Architecture in Turkey Burkay Pasin
S1285	Rethinking the education of retail design. What are the competences a retail designer needs in this fast evolving discipline? Katelijn Quartier, Stephanie Claes, Jan Vanrie
S1293	Semiotics in Design Education. Semiotics by Design Michela Deni, Salvatore Zingale

S1304	Service Design pedagogy and effective student engagement: Generative Tools and Methods Hena Ali, Silvia Grimaldi, Monica Biagioli
S1323	'Sketching' the new designers - going wide, going deep and doing it together Rita Assoreira Almendra, Gonçalo Falcão
S1336	Systemic Design, from the content to the structure of education: new educational model. Chiara Battistoni, Silvia Barbero
S1355	Systemic Food Design.it A website that narrates food supply chains from a systemic perspective Franco Fassio
S1367	The Anatomy of a Multi-Sensory Design Course: Happy Sound Object Yasemin Soylu, Berrak Karaca Şalgamcıoğlu, Pelin Efilti, Oki Kasajim
S1380	The design brief: inquiry into the starting point in a learning journey Noemi Sadowska, Dominic Laffy
S1390	The Digital Corbeled Wall. A Pedagogical Approach to Digital Infrastructure and Traditional Craft James Stevens, Ayodh Kamath, Komal Sharma
S1405	The end of the "briefing" and "the client" in graphic design.  Gonçalo Falcão, Rita Almendra
S1415	The Reflection of Experiential Knowledge Into Professional Practice: Case of Industrial Design Education Enver Tatlisu, Çiğdem Kaya
S1430	The street as teaching space. A case study Paul Woodruffe, Mandy Patmore
S1448	Theoretical studies and practical tools for a systemic design educational paradigm.  Applications of Systems Thinking principles to design education Laura Dominici
S1459	Towards a University Design School. Restoring the value of tacit knowledge through assessment Lynne Whelan, Carmel Maher, Colin Deevy
S1471	Using Design Methods to Improve Design Quality: Verbalizers vs Visualizers  Younjoon Lee, Jaewoo Joo
S1485	Vulnerable children as change-agents within their communities: an educational methodology co-designed in Namibia Valentina Salvi
S1503	Wearable Words: A case study applying Jewellery theory and practice to the education of Fine Art, Textiles Innovation and Design, Graphic Communication and Illustration students Roberta Bernabei
S1511	What students say about their work and what it says about their work. Toward the development of rhetorical practice in the educational design studio  Myra Thiessen, Veronika Kelly
S1521	What's Next in Design Education? Transforming role of a designer and its implications in preparing youth for an ambiguous and volatile future Ramneek Kaur Majithia
S1530	Why a Logbook? A backpack journey as a metaphor for product design education Violeta Clemente, Katja Tschimmel, Rui Vieira
S1543	World design. Educational approach for a new experience of sharing.  Maria Antonietta Sbordone, Rosanna Veneziano

## DESIGN FOR NEXT ENVIRONMENT

S1558	A second life for Contemporary Ruins. Temporary Adaptive Reuse strategies of Interior Design to reinterpret vacant spaces Barbara Camocini, Oxana Nosova
S1566	An Integral Design Framework —designing a global village Fenja Sepers
S1580	Architecture for Regenerating Living Ecosystems: Designing a clay module for a vaulted dome structure Miruna Sladescu, Caitilin de Bérigny, Glen Hill
S1596	Bioplastics made from upcycled food waste. Prospects for their use in the field of design Cecilia Cecchini
S1611	Circular Material Library. An Innovative Tool to Design Circular Economy Maarit Virtanen, Kati Manskinen, Sauli Eerola
S1620	Circular Product Design. A Multiple Loops Life Cycle Design Approach for the Circular Economy Ana Mestre, Tim Cooper
S1636	Climate Change. Design Teaching for a New Reality Paul Micklethwaite, Robert Knifton
S1651	Creating 21st Century Global Citizens. A design-led systems approach to transformative secondary education for sustainability Nikolas Winter-Simat, Natalie Wright, Jaz Hee-jeong Choi
S1662	Creating a Tool for Measuring the Social Value of Design Jea Hoo Naa, Youngok Choi, Andrew Walters, Busayawan Lam, Stephen Green
S1673	Data Visualization Collection. How graphical representation can inspect and communicate sustainability through Systemic Design Barbara Stabellini, Chiara L. Remondino, Paolo Tamborrini
S1682	<b>DEMOCRATIC CARDBOARD. Materials and design for a sustainable society Davide Turrini</b>
S1692	Design for Leftovers. From Food Waste to Social Responsibility  Marco Bozzola, Doriana Dal Palù, Claudia De Giorgi
S1705	Design for social sustainability. A reflection on the role of the physical realm in facilitating community co-design. <i>Mirian Calvo, Annalinda De Rosa</i>
S1725	Design Process and Sustainability. Method and Tools  Marco Marseglia
S1738	Designing material interaction to promote water saving. An exploration of sensory language Sara Bergamaschi, Lucia Rampino
S1751	Designing on the Spot: Learning from the Social Design Projects in Gökçeada/Imbros Island Alayça Erözçelik, Burak Taşdizen
S1765	Energy Performance Development of Non-regulated Retrofit Mass Housing Estates in Northern Cyprus Bertug Ozarisoy, Hasim Altan
S1782	Envisioning the future of public lighting with citizens for upcoming technologies Olli Heiskanen, Karthikeya Acharya
S1794	From Science to Design: the Design4Materials virtuous cycle Rossana Carullo, Cecilia Cecchini, Marinella Ferrara, Carla Langella, Sabrina Lucibello
S1807	GreenTeam. A new educative approach to sustainable design Andrea Di Salvo, Silvia Barbero, Andrea Gaiardo, Giada Rivella
S1817	'I Believe in That Version of the Future'. Cli-Fi and Design Fictions as Dialogical Frameworks for Expert Engagements Lizette Reitsma, Stina Wessman, Elin Önnevall
S1827	Information design as a tool for promoting renewable energy Susanna Vanhamäki, Antti Heinonen, Kati Manskinen, Mirja Kälviäinen

S1836	Make the environment the (Next) Economy Vanessa Monna
S1852	Material Resignification in the Amazon. A way to construct sustainability scenarios Fernanda Sarmento, Monica Moura
S1869	Pocket Park: Product Urban design Francesco Armato
S1879	REPEAT – Textile Design for PV Modules! Design-driven Strategies for Photovoltaic Modules Tina Moor, Brigitt Egloff, Tina Tomovic, Stephen Wittkopf
S1894	Resilient Design: Mitigating Trepidation About Environmental Disasters Tonya Sweet, Catherine Caudwell
S1904	Rethinking Water: A CAAS (City As A Spaceship) design approach Susan Fairburn, Barbara Imhof, Susmita Mohanty
S1916	Shifting Conversations for Sustainability Transitions Using Participatory Design Visioning A. İdil Gaziulusoy, Chris Ryan
S1927	Space4Inspiration: Survival Lab. Designing Countermeasures for Natural Disasters  Annalisa Dominoni , Benedetto Quaquaro, Susan Fairburn
S1938	Sustainable Design Futures: An open design vision for the circular economy in fashion and textiles Paul Smith, Jen Baille, Lynn-Sayers McHattie
S1948	Sustainable Design: Circular Economy in Fashion and Textiles Debbie Moorhouse, Danielle Moorhouse,
S1960	The Speedcycle: a design-led framework for fast and slow circular fashion lifecycles Kate Goldsworthy
S1971	VEG-HIVE. An easy to grow veg-kit for urban farmers  Erminia D'Itria, Loredana Di Lucchio
	DESIGN FOR NEXT HEALTH
S1978	A Healthcare Wearable for Chronic Pain Management. Design of a Smart Glove for Rheumatoid Arthritis Gozde Goncu-Berk, Nese Topcuoglu
S1989	A Multidisciplinary inspection of Dental Photography: What Do Dentist Think and What

S1978	A Healthcare Wearable for Chronic Pain Management. Design of a Smart Glove for Rheumatoid Arthritis Gozde Goncu-Berk, Nese Topcuoglu
S1989	A Multidisciplinary inspection of Dental Photography: What Do Dentist Think and What Can Designer Do? Yener Altiparmakogullari, Muhsin Cifter, Abdusselam Selami Cifter
S1998	A Review on Future Directions in Hospital Spatial Designs with a Focus on Patient Experience Abdusselam Selami Cifter, Muhsin Cifter
S2010	Co-designing co-design. Shifting the culture of practice in healthcare Paul Chamberlain, Rebecca Partridge
S2022	Design and Disability. Developing New Opportunities for the Design Curriculum Emma Gieben-Gamal, Sónia Matos
S2033	Design and Usability of the Next Medical Devices for the Home Care Francesca Tosi, Alessandra Rinaldi
S2044	Design Experiments. Identifying areas for intervention and designing medical technology for adolescents and young adults with type 1 diabetes Gillian M. McCarthy, Edgar R. Rodríguez Ramírez, Brian J. Robinson
S2057	Design facilitators' journeys through the jungle of Co- in healthcare Remko van der Lugt, Tanja van der Laan
S2068	DESIGN FOR DUCHENNE. Guidelines for dwellings' construction or renovation for Muscular Dystrophy-Affected Families Michele Marchi, Giuseppe Mincolelli

S2078	Design for Dysphagia: a new hardware-and-software mobile system to monitor patients' swallowing Niccolò Casiddu, Claudia Porfirione
S2090	Design for the ambient assisted living Giuseppe Losco, Andrea Lupacchini, Luca Bradini, Davide Paciotti
S2109	Design of non-speech sounds for human interaction. A conjunction between industrial design and psychology Eduardo Tapia Olmos
S2120	Design probes and toolkits for healthcare: Identifying information needs in African communities through service design Ralitsa D. Debrah, Retha de la Harpe, Mugendi K. M'Rithaa
S2135	Design research for the development of a Medical Emergency Ambulance. Design as a symbolic qualifier in the design of complex systems/products Augusto de Sousa Coelho, Vasco Branco
S2158	Designing Care. How Design can improve medical products for a therapeutic wellbeing Angela Giambattista
S2168	Designing for Aesthetic Disruption: Altering Mental Models in Social Systems through Designerly Practices Josina Vink, Katarina Wetter-Edman, Manuela Aguirre
S2178	Designing for an ageing society: products and services Silvia Pericu
S2190	Designing Industrial Design in the Highly Regulated Medical Device Development Process.  Defining our valuable contribution towards usability MaryBeth Privitera
S2207	Designing Interactive Music Systems with and for People with Dementia  Alexander Müller-Rakow, Rahel Flechtner
S2215	Designing Schools for Students on the Spectrum Ulrike Altenmüller-Lewis
S2230	Designing Therapeutic Support for the People with Alzheimer's disease. A designerly way of Investigation Beril Imamogullari, Alessandro Biamonti
S2238	Designing with Dignity: Social determinants of health and design research Diana Nicholas, Kiera Townsend, Yvonne Michael
S2247	Discovering Service Variations through Service Prototyping Vanessa Rodrigues, Stefan Holmlid
S2258	Emerging Trends and the Way Forward in Design in Healthcare: An Expert's Perspective Emmanuel Tsekleves, Rachel Cooper
S2273	Enhancing co-responsibility for patient engagement Ineke Neutelings, Pierre Levy, Tom Djajadiningrat, Caroline Hummels
S2284	Environment as non pharmacological intervention in the care of Alzheimer's disease Silvia Maria Gramegna, Alessandro Biamonti
S2293	Health Co-Creation in Social Innovation: Design Service for Health-Empowered Society in China Liang Yin, Davide Fassi, Hang Cheng, Han Han, Shushu He
S2304	Health Design: Mapping current situations, envisioning next steps  Guillermina Noël
S2315	How can constraint-induced movement therapy for stroke patients be incorporated into the design of a tangible interface? The case study of the 'Biggest Hit'  Mailin Lemke, Edgar Rodríguez Ramírez, Brian Robinson
S2336	Imagined futures: designing future environments for the care of older people  Claire Craig
S2348	Improving the Pelvic Exam Experience: A Human-Centered Design Study Gina A Taylor, Deana McDonagh, Michael J Hansen

S2363	Improving the Visualisation of Renal Blood Test Results to Enhance Patient – Clinician Communication Adrian Gradinar, Jeremy Davenport, Heather Hill, Paul Coulton
S2375	Incremental and Radical Innovation: Design in Robotics for Autism. Teo and Riby robots.  Evolutionary Development Maximiliano Romero, Andrea Bonarini, Andrea Brivio, Ksenia Rogacheva
S2389	Informing hospital design through research on patient experience Margo Annemans, Liesbeth Stam, Jorgos Coenen, Ann Heylighen
S2397	Limited use only. How can the design of an everyday object help chronic stroke patients to overcome the learned nonuse of the upper limb? Mailin Lemke, Edgar Rodríguez Ramírez, Brian Robinson
S2418	Multisensory design of pocket gardens for reducing stress and improving well-being, performance and satisfaction Noemi Bitterman, Ella Simonov
S2426	Participant Observation in Cognitive Gameplay as a Rehabilitation Tool for Living Alone Elderly with Dementia in Hong Kong: A Pilot Study Alex Pui-yuk King, Kin Wai Michael Siu
S2439	Persuasive Technology as key to increase Working Health Condition. The Case study of a Wearable System to prevent Respiratory Disease Venere Ferraro, Mila Stepanivic, Silvia Ferraris
S2451	SAM - Simulation Airways Models Elisabetta Cianfanelli, Lorenzo Corbetta, Gabriele Goretti, Lorenzo Pelosini, Maria Luisa Malpelo
S2463	Sense and movement. Design of a system for sensorimotor rehabilitation after stroke. Francesca Toso
S2473	Systemic Design for Sustainable Healthcare Silvia Barbero, Agnese Pallaro
S2486	Systemic innovation in sustainable design of medical devices Silvia Barbero, Amina Pereno, Paolo Tamborrini
S2498	The Effectiveness of Environmental Design for Physical Activities Promotion: Review Aline Gonzalez-Moreno, Aldo Valencia-Hernandez, Omar Valencia-Hernandez
S2524	The fuzzy front-end and the forgotten back-end: User involvement in later development phases Frida Almqvist
S2534	User-Designed Dementia Care Pathways. A disruptive approach to mapping dementia support services Daniel Carey, Andy Tennant, Paul Rodgers, Katie Dodd
S2551	Wayfinding for health seeking: Exploring how hospital wayfinding can employ communication design to improve the outpatient experience  Eden Jayne Short, Stephen Reay, Peter Gilderdale
S2569	Well Connected. What does design offer in the complexity of blood donation management Tine Thorup, Jen Ballie, Marjan Angoshtari
S2580	Will smart homes improve our lives? A design perspective towards effective wellbeing at home Margherita Pillan, Sara Colombo
•	

## DESIGN FOR NEXT INDUSTRY

- A Design perspective for IoT products. A case study of the Design of a Smart Product and a Smart Company following a crowdfunding campaign.
  - Ilaria Vitali, Venanzio Arquilla, Umberto Tolino
- S2605 Changing roles. Role theoretical approach to customer involvement in industrial service development Sanna Peltonen

S2616	Design Absorption and Learning Processes: a study on designers' perceptions about companies. Ivna Ravanello, Fabiane Wolff, Andréa Capra
S2625	Design and the Fourth Industrial Revolution. Dangers and opportunities for a mutating discipline. Tomás García Ferrari
S2634	Design for Next Connected Appliances Eleonora Fiore, Paolo Tamborrini, Silvia Barbero
S2645	Designing Fast & Slow. Exploring fashion textile product lifecycle speeds with industry designers Rebecca Earley
S2657	Digital Maker Networks. Benefits, barriers and opportunities for re-localised UK manufacturing for the future Paul Smith
S2667	Emotional service experience toolkit for servitization  Miia Lammi
S2679	Fashion Design for Short Male Consumers Osmud Rahman, Henry Navarro
S2689	Footwear design. The paradox of "tailored shoe" in the contemporary digital manufacturing systems Annalisa Di Roma
S2700	Go with the Flow: Accelerated digital design in the age of Post-agility  John Knight
S2716	Hospital of Objects. Recycling plastic from the small electronic devices to redesign old objects by the 3d printers Chiara Petruzzi, Loredana Di Lucchio, Lorenzo Maria Cafiero, Riccardo Tuffi, Alessio Ubertini, Flavio Caretto
S2724	Industry 4.0, Innovation and Design. A new approach for ergonomic analysis in manufacturing system Elena Laudante
S2735	Industry 4.0: Is It Time for Interaction Design Craftsmanship?  Daniela Petrelli
S2746	Networked production and outsourced design. A comparison of three case studies  Silvia Gasparotto
S2760	New vision on Knitwear design. How the traditional craft methodologies are evolving into fashion international scenarios. Laura Affinito, Giovanni Maria Conti, Martina Motta
S2771	Next generation of tools for industry to evaluate the user emotional perception: the biometric-based multimethod tools Ganix Lasa, Daniel Justel, Itsaso Gonzalez, Ion Iriarte, Ester Val
S2778	Scenarios for design and craft Manuel Martínez Torán, Chele Esteve Sendra, Ricardo Moreno Cuesta
S2789	Strategic innovation tools enabling nautical stakeholders to shape a next level port Garmt Nieuwsma, Ingrid Mulder
S2803	The Relation of Influence between Leadership Style and Team Creativity of Integrated Design Companie Yueh Hsiu Giffen Cheng, Teng-Jung Wang
S2813	The Role of Design Concepts in the Development of Digitalized Industrial Services  Janne Pekkala, Salu Ylirisku
S2823	The understanding and use of design in the UK industry: reflecting on the future of design and designing in industry and beyond Ricardo J Hernandez, Rachel Cooper, Jeyon Jung
S2837	What does Product Design Mean Tomorrow? Example Middle East  Andreas Sicklinger
S2846	Why the Internet of Things needs Object Orientated Ontology  Joseph Lindley, Paul Coulton, Rachel Cooper

## DESIGN FOR NEXT SOCIETY

S2858	Anamorphosis and Contemporaneity  Tommaso Empler
S2873	Built territories. Innovative regeneration processes for a participatory and sustainable design Marco Borsotti, Sonia Pistidda, Giulietta Fassino
S2883	Call of Survival: Stigmergy for Matters of Concern Shanu Sharma, Koumudi Patil
S2894	Con[temporary]. Design for social innovation  Chiara Olivastri
S2906	Containers of Stories: using co-design and digital augmentation to empower the museum community and create novel experiences of heritage at a house museum Caroline Claisse, Luigina Ciolfi, Daniela Petrelli
S2919	Craft and Sustainability: Potential for Design Intervention in Crafts in the Yangtze River Delta, China Xiaofang Zhan, Stuart Walker, Ricardo Hernandez-Pardo, Martyn Evans
S2935	Crafting Sustainable Futures. The Value of the Service Designer in Activating Meaningful Social Innovation from within Textile Artisan Communities  Francesco Mazzarella, Val Mitchell, Carolina Escobar-Tello
S2951	Decentralising Design. Raising the Question of Agency in Emerging Design Practice Paola Pierri
S2960	Design and Innovation in Brazil. Reflections on a local experience within the furniture industry sector Viviane G. A. Nunes
S2973	Design by means of citizen activism: three cases illustrated by the action of Coletivo Maré, Rio de Janeiro, Brazil Bruna Montuori, Marcos Rosa, Maria Cecilia Santos
S2991	Design for Grassroots Production in Eastern Turkey through the Revival of Traditional Handicrafts Hazal Gumus Ciftci, Stuart Walker
S3005	Design for social enterprises. Co-designing an organizational and cultural change Daniela Selloni, Marta Corubolo
S3020	Design for Society: Analysis of the adoption of Design practices by Early-Stage Social Entrepreneurs David Pérez, David Hands, Edward McKeever
S3035	Design for Socio-technical Innovation: A Proposed Model to Design the Change Pablo Marcel de Arruda Torres
S3047	Design for Territories as Practice and Theoretical Field of Study  Marina Parente, Carla Sedini
S3059	Design Paradox. The next chapter in the design process  Daria Ayvazova
S3068	Designing for the next generation. Children urban design as a strategic method to improve the future in the cities Laura Giraldi, Elisabetta Benelli, Roberta Vita, Isabella Patti, Jurji Filieri, Francesca Filippi
S3079	Designing local food systems in everyday life through service design strategies Emily Ballantyne-Brodie, Ida Telalbasic
S3096	Designing Trust: the importance of relationships in social contexts  Dr Laura Warwick
S3106	Digital commons, urban struggles and the role of Design Andreas Unteidig, Blanca Domínguez Cobreros, Elizabeth Calderon-Lüning, Gesche Joost

S3121	Engaged by Design: The Role of Emerging Collaborative Infrastructures for Social Development. Roma Makers as A Case Study Alessandra Fasoli, Silvio Tassinari
S3134	Enhancing textile enterprises for a more sustainable society, through design research and website development Disaya Chudasri, Krittiya Saksrisathapor
S3152	Fab Labs. New hubs for socialization and innovation Annalisa Di Roma, Vincenzo Minenna, Alessandra Scarcelli
S3162	Fair by design. Addressing the paradox of inclusive design approaches  Matteo Bianchin, Ann Heylighen
S3171	Framing Design to support Social Innovation: The Open4Citizens Project Nicola Morelli, Marc Aguilar, Grazia Concilio, Amalia De Götzen, Ingrid Mulder, Janice Pedersen, Louise Klitgaard Torntoft
S3185	Freedome smart mobile office-home. The bio-logic design adaptation to the dynamic evolution of living Serena Fiorelli
S3202	From Cork Labour Activities to Co-design Production. Azaruja Case Study António Gorgel Pinto, Paula Reaes Pinto
S3213	Future Tense: Alternative Futures as a Design Method for Sustainability Transitions Corina Angheloiu, Goldie Chaudhuri , Leila Sheldrick
S3226	Harmonics: Towards Enlightened Evaluation Katherine Champion, George Jaramillo
S3238	Having a voice, having a choice: Children's Participation in Educational Space Design Eda Can, Göksenin İnalhan
S3252	Human movement in Public spaces: The use and development of motion-oriented design strategies Liselotte Vroman, Thierry Lagrange
S3262	Information Design for Supporting Collaborative Communities  María de los Ángeles Briones
S3279	Infrastructuring Place. Citizen-led Placemaking and the Commons Maria Frangos, Thomas Garvey, Irena Knezevic
S3294	Libraries of Things as a new form of sharing. Pushing the Sharing Economy Najine Ameli
S3305	Living mobility transitions towards bicycling. Designing practices through co-creation and socially influencing systems Tobias Barnes Hofmeister, Agnis Stibe
S3317	Makers' ambitions to do socially valuable things  Elisabeth Unterfrauner, Christian Voigt
S3326	Making Visible: Valuating the Impacts of Design Intervention for Social Cooperative Xue Pei, Francesco Zurlo, Arianna Vignati, Luca Fois, Michele Melazzini
S3340	Masters of Cerimonies. A design approach to participatory video Francesca Piredda, Elisa Bertolotti, Simona Venditti
S3354	No Man is an Island. Situated Design Research and Wicked Impact Jeroen Peeters, Nigel Papworth, Pernilla Glaser, Carla Collevecchio, Ana Betancour, Ambra Trotto
S3368	Participatory Design for Public Services. Innovation in Public Administration  Gianni Sinni
S3380	People's Republic of Bolzano or how digital artifacts can be adversarial to misinformation Matteo Moretti, Maurizio Teli, Antonella De Angeli
S3393	Places, Communities and Knowledge. You'll be part of an upcoming exhibition Alfredo Calosci
S3401	Providing Fast Flowing Calm Waters. The role of the Design Manager in mid-large scale Public Sector Co-Design Projects Gemma Coupe, Leon Cruickshank

REAGENTE. A label for social innovation. Raffaella Fagnoni, Silvia Pericu, Chiara Olivastri
Research on Service Blueprint of Food Banks Pin Hsuan Kuang, Wen Hui Chou
Sacred design. Immaterial values, material culture  Luisa Chimenz
Sharing Economy for Tourism and Hospitality: new ways of living and new trends in interior design Luisa Collina, Laura Galluzzo, Giulia Gerosa, Maddalena Bellè, Maria Lidia Maiorino
Social Design for Service. Building a Framework for Designers Working in the Development Context Essi Kuure, Satu Miettinen
Socially Engaged Transmedia Practice. Three Co-Creative Interventions in Portuguese Neighbourhoods António Gorgel Pinto
Storytelling in design for social innovation and politics: a reading through the lenses of Hannah Arendt Virginia Tassinari, Francesca Piredda, Elisa Bertolotti
Systemic Design approach in policy-making for sustainable territorial development Silvia Barbero, Miriam Bicocca
Tackling local problems by embedding design in local administrative offices: A case study of the 'Design Consultant' program Eun Ji Cho
THE CHALLENGE OF BEING ACTIVIST-DESIGNER. An attempt to understand the New Role of Designer in the Social change based on current experiences Maziar Rezai, Mitra Khazaei
The emerging challenge of brand design and brand management in social innovations Tamami Komatsu Cipriani
The growth of digital social innovation in Europe. An Open Design approach to support innovation for the societal good Serena Cangiano, Zoe Romano, Matteo Loglio
The Museum of the Future: a sedimentary cloud Craig Bremner, Laura Bernadet
The role of design in supporting the continual emergence of hybrid spaces of interaction within the city Valentina Volpi, Antonio Opromolla
The Social Purpose of Design Activity  Xuesong Wu
Towards a new "urban sensitivity". The role of design as support to social innovation Barbara Di Prete, Martina Mazzarello
Unearth Hidden Assets through Community Co-design and Co-production Busayawan Lam, Theodore Zamenopoulos, Mihaela Kelemen, Jea Hoo Na
UTOPIA_an Italian way to practice transdisciplinarity. Educating alterity  Valentina Frosini
Working with young people at the margins of society to design hybrid physical/digital objects to portray their experiences of support services Daniel Burnett, Paul Coulton
You say you want a revolution? Non-normative foundations of Transformation Design  Peter Friedrich Stephan

## DESIGN FOR NEXT TECHNOLOGY

S3643	collaborative processes on GitHub Massimo Menichinelli
S3659	A Framework for Capturing Creativity in Digital Fabrication Georgi V. Georgiev, Iván Sánchez Milara, Denzil Ferreira
S3669	A Heuristic for Improving Transmedia Exhibition Experience Vashanth Selvadurai, Claus Andreas Foss Rosenstand
S3683	A study of the relationship between personalised 3D printed 'Souvenirs of Place' and public perception of modern architectural heritage. Samantha Forster, Katherina Vones, Constantia Anastasiadou
S3696	Adopting the Unknown through the Known Supporting user interaction of non-idiomatic technologies in exhibitions through known idioms of conventional technologies  Peter Vistisen, Claus Pertou Østergaard, Rameshnath Kala Krishnasamy
S3707	:Blackbox: A Design Fiction research project Alfonso Tiberio, Lorenzo Imbesi
S3713	Collaboration and exchange between "Craftsman" and "Designer": Symbiosis towards Product Innovation. Handan Temeltaş
S3724	Conceptualising Kinaesthesia – Making Movement Palpable Lise Amy Hansen, Wendy Keay-Bright, Damian Milton
S3735	Crafting the Digital: Developing expression and materiality within digital design and manufacture David Grimshaw
S3749	Design and Planned Obsolescence. Theories and Approaches for Designing Enabling Technologies. Matteo Zallio, Damon Berry
S3762	Design problem analysis and process. A case of technology-augmented problem decomposition in analysis and understanding of public space Awoniyi Stephen
S3776	Design Thinking Applied to Data Storage Innovation: A Case Study Maliheh Ghajargar, Giulio Mangano, Alberto De Marco, Roberta Giannantonio
S3789	Designing The "Next" Smart Objects Together With Children Seçil Uğur Yavuz, Nitzan Cohen, Roberta Bonetti
S3801	Designing the Next Generation of Connected Devices in the Era of Artificial Intelligence Alexander Schurig, Colin George Thomas
S3811	DIY: polar fleece as a new material for handmade artefacts.  Beatrice Lerma
S3824	Effect of Digital Age on the Transmission of Cultural Values in Product Design Betül Aybala Çakmakçıoğlu
S3837	Empathy Workshop: When Project team and Pilot Users Exchange Experiences Maliheh Ghajargar, Lucia Longo, Eleonora Gargiulo, Roberta Giannantonio
S3849	Fiction and Physicality: a designerly approach towards complexities of emerging technologies Yeup Hur, Miriam Sturdee, Migeul Bruns Alonso, Panos Markopoulos, Jason Alexander
S3863	Flying with data: Openness, forms and understanding.  Nick Dulake, Ian Gwilt
S3873	From Design for One to Open-ended Design. Experiments on understanding how to open-up contextual design solutions Francesca Ostuzzi, Lieven De Couvreur, Jan Detand, Jelle Saldien
S3884	From respect to change user behaviour. Research on how to design a next generation of smart home objects from User Experience and Interaction Design Yichen Wu, Margherita Pillan

S3899	Humans, Machines and the Design Process. Exploring the Role of Computation in the Early Phases of Creation Philippa Mothersill, V. Michael Bove Jr.
S3914	Interaction design applications for museum spaces. New exhibit paths driven by a Bluetooth sensor's system Claudio Germak, Sara Khan
S3925	Interaction design for cultural heritage. A robotic cultural game for visiting the museum's inaccessible areas. Germak Claudio, Giuliano Luca, Lupetti Maria Luce
S3935	Interface and Data Biopolitics in the Age of Hyperconnectivity. Implications for Design Salvatore Iaconesi
S3945	Jamming as a design approach. Power of jamming for creative iteration  A. Tece Bayrak
S3954	Lifelogging in User Experience Research: Supporting Recall and Improving Data Richness Mattias Arvola, Johan Blomkvist, Fredrik Wahlman
S3966	Making and Unfinishedness: Designing Toolkits for Negotiation  Michael Smyth, Ingi Helgason
S3975	Museum Experience Design: A Modern Storytelling Methodology Federica Dal Falco, Stavros Vassos
S3984	My Boy Builds Coffins Gianni Denaro, Lorenzo Imbesi
S3996	Research through provocation: a structured prototyping tool using interaction attributes of time, space and information. Jaime Rivera, Tom MacTavish
S4009	Rethinking the Role of Design within the Technological Advancements in Biomimetics and SynBio Toufic Haidamous
S4019	Silk Road: A Reference. Creating public architectural intervention in the context of education & technology. Marcus M. Farr
S4038	Speculating the Possibilities for Remote Collaborative Design Research. The Experimentations of a Drawing Robot Catherine Normoyle, Rebecca Tegtmeyer
S4052	Technological Research and Invention In The Industrial Design  Mario Buono, Sonia Capece
S4065	Textile Connections E-textiles to enhance connectedness for older adults experiencing loneliness Sara Nevay, Christopher S.C. Lim, Gary Gowans
S4076	The cocktail party effect. An inclusive vision of conversational interactions  Isabella Loddo, Dario Martini
S4087	The future of print design relies on interaction  Marco Neves
S4101	The Map As An Object of Service Design Qian Sun, Hyunyim Park
S4120	'The Robots are Coming!': Perennial problems with technological progress Paul Atkinson
S4132	TXD. From Traceability to Experience Design in Fashion Accessories Production.  Elisabetta Cianfanelli, Gabriele Goretti
S4146	Using Design Fiction to Inform Shape-Changing Interface Design and Use Miriam Sturdee, Paul Coulton, Jason Alexander
S4158	When Your Toaster is a Client, how do you design? Going Beyond Human Centred Design Leon Cruickshank, Nina Trivedi

## DESIGN FOR NEXT THINKING

S4171	A case of values conflict in the video game design field. A critique of Schön's appreciative system. Laureline Chiapello
S4183	Adaptive Thinking for Design Leadership. Coaching adaptive capabilities to empower next visionary leaders Francesco Galli, Barbara Pino A., Irina Suteu
S4197	Analysing the Digital Transformations, Territories, Frames and Uses  Mario Gagliardi
S4213	Cause and Effect of Design Features and Brand Value: Consumer Interpretation of Design and Value of Long- and Short-Term Products Kana Sugimoto, Shin'ya Nagasawa
S4227	Channelizing Thinking for Practical Innovations and Measurable Impact Kalyani Khodke, Sagar Behere
S4241	CO/DEsign: building a shared dialogue around analysis within co-design Michael Pierre Johnson, Jen Ballie, Tine Thorup, Elizabeth Brooks, Emma Brooks
S4253	Critical design as approach to next thinking  Liene Jakobsone
S4263	Design Education at the Boundary Robert Potts
S4281	Design for Next Thinking. Using Transformation Consequence Mapping to Improve Responsible Innovation Practices Ashleigh Bentham
S4292	Design for Subjective Wellbeing: Towards a Design Framework for Constructing Narrative Patrick W. Jordan, Andy Bardill, Kate Herd, Silvia Grimaldi
S4307	Design in the Middle: A New Approach to Collaborative Socio-political Design in Conflict Areas Merav Perez, Ezri Tarazi
S4319	Designing for Violence. And its undoing Stahl Stenslie
S4331	Design-led Approach to Co-production of Values for Collective Decision-Making Sneha Raman, Tara French, Angela Tulloch
S4343	Driverless Governance. Designing Narratives Toward Democratic Technology Melika Alipour Leili, Winnie Tsai Chang, Corey Chao
S4357	Empathy and Design. A new perspective  Alice Devecchi, Luca Guerrini
S4365	Envisioning urban futures: from narratives to composites. Serena Pollastri, Christopher Boyko, Rachel Cooper, Nick Dunn, Stephen Clune, Claire Coulton
S4378	Foucault and the smart city  Ding Wang
S4387	Grounding Evidence in Design: Framing Next Practices Altuğ Kasalı, Nancy J. Nersessian
S4398	Idea Management. Identifying the factors that contribute to uncertainty in idea generation practices within front end NPD Se Ryeong Kim
S4409	Implementation during design Developing understanding about service realisation before implementation Tim Overkamp, Stefan Holmlid
S4422	Meaning, knowledge and artifacts, giving a voice to tacit knowledge Spyros Bofylatos, Thomas Spyrou
S4434	Outside the "Comfort Zone". Designing the Unknown in a Multidisciplinary Setting Kirsi Niinimäki, Marjaana Tanttu, Cindy Kohtala

54444	Paradoxes in Design Thinking Paul A. Rodgers, Giovanni Innella, Craig Bremner
54459	Potentiality: the ethical foundation of design  Peter Buwert
54468	Prototyping the non-existent as a way to research and innovate: a proposal for a possible framework for design research and innovation Juan De la Rosa
64477	Rethinking the Roles of Fashion Designers. The Case of Pre Helsinki Namkyu Chun, Olga Gurova, Kirsi Niinimäki
54487	Scalable Interactive Modular Systems (SIMS): sustainability for digital interfaces  Luigi Ferrara, Nastaran Dadashi, Robert Giusti
64497	Scientific Craftsmanship: The changing role of product designers in the digital era Muhammet Ramoğlu, Aykut Coşkun
\$4509	Stimulating Thinking at the Design Pitch. Storytelling Approach and Impact David Parkinson, Laura Warwick
64519	Synesthetic Approach in the Design Process for Enhanced Creativity and Multisensory Experiences Sevi Merter
54529	Systems thinking and its contribution to understanding future designer thinking  Laura Mononen
84539	Terms and meanings of "participation" in product design: From "user involvement" to "co-design" Lucía Sánchez de la Guía, Marina Puyuelo Cazorla, Blanca de-Miguel-Molina
84552	The Constellation: A framework for conceptualising design as a process of innovation.  Joanna Bletcher
84565	The design movement: Two case studies from the edge of the discipline Rebecca Price, Karla Straker
84575	The use of intuition during scenario building activities in design projects  Priscilla Ferronato, Stan Ruecker, Celso Scaletsky
54584	To the new methodology of design consciousness for the futures  Galina Lola, Tatiana Aleksandrova
54591	Towards prospective design  Bridgette Engeler
54600	Ubiquitous Design. Ethnographic glances toward syncretisms, polyphonies, meta- fetishisms Massimo Canevacci
54611	Understanding Collaborative Design Through Activity Theory Mithra Zahedi, Virginie Tessier, Dave Hawey
54621	User, Research, and Practice. Learning from Design Consultancies Işıl Oygür
54632	Vapourworlds and Design Fiction: The Role of Intentionality Paul Coulton, Joseph Lindley
54643	What counts when counting gets complicated?  Elizabeth Wright, Simon Fraser, Thomas Eugene Wright Jr.
84652	Yellow as "Non-Black": Prosthetics, Semiotics, Hermeneutics, Freedom and Function Jonathan Ventura, Galit Shvo

## WORKSHOPS

S4671	Discussing about "Inclusion in Sharing-Based Services". A design workshop using an analytic tool Daniele Busciantella Ricci, Hua Dong, Alessandra Rinaldi, Francesca Tosi
S4678	Eco-social design: who pays for it? Bianca Elzenbaumer, Fabio Franz, Kris Krois, Alvise Mattozzi
S4683	Experiencing Technology Enabled Empathy Mapping Daniel Neubauer, Verena Paepcke-Hjeltness, Pete Evans, Betsy Barnhart, Tor Finseth
S4690	Model and Mobilise Imaginary for Innovative Experience Design Estelle Berger, Frédérique Pain
S4697	Pablo Escobar: Zoomania in the narco imperium. The glorification of the cocaine network Catalina M Jaramillo
S4710	Perspectives on socially and politically oriented practices in design Bianca Herlo, Andreas Unteidig, Wolfgang Jonas, İdil Gaziulusoy
S4714	Spirit of '68. The 'next' role of the art/design school?  Jo Turney, Alex Franklin
S4721	Strategies for synergies. Working in interdisciplinary teams Hannah Glatte, Marie Heidingsfelder, Franziska Brodack

## **POSTERS**

S4726	A contribution for Jewelry Design Teaching  Claudia Regina Batista
S4730	Analysis of Available Design Implementation Methods. A Study About Scarcity of Implementation Methods Ricardo Martins
S4734	Anatomy of local government/design education collaboration.  Adam Thorpe, Alison Prendiville, Lara Salinas, Sarah Rhodes
S4738	Breathing Games: Promoting Respiratory Health Through Co-creation Maria Frangos, Fabio Balli
S4742	Co-designing with plants. Degrading as an overlooked potential for interior aesthetics based on textile structures Svenja Keune
S4745	Contemporary design. Variables and categories  Vincenzo Maselli
S4748	Design for the Smart Cities. Investigation about citizen's needs and products to improve public places Lola Merino Sanjuán, Marina Puyuelo Cazorla, Mónica Val Fiel
S4751	Design Lab: For Future Research Ahmet Başkan, Füsun Curaoğlu
S4754	Designing for additive manufacturing technologies: a design research methodology Silvina Félix, Nuno Dias, Violeta Clemente
S4758	Desirability in design for safety: Developing life jacket through creative problem solving method of TRIZ Shahin Matin, Mohammad hossein Namayandegi
S4761	Exploring the Next Urban Condition Adam Fromme, Jeff Haase
S4765	From Co-Working Places to New Education Places Füsun Curaoğlu, Duysal Demirbaş

S4768	Image Management: The Contribution of Design Emílio Távora Vilar
S4771	Modes. A Multi-sensory Media Experience for Stress Reduction Emily Verba Fischer, John Hebbeler
S4774	MU.SA Method. Multimodal System Approach to the learning of the History of Design Isabella Patti, Roberta Vita
S4778	Multidisciplinary approach for a new vision of urban requalification. Multi-scale strategies of social innovation, economic improvement and environmental sustainability practices. Multi-scale strategies of social innovation, economic improvement and envir Annamaria Bagaini, Zoe Balmas, Anna Koryakina, Anna Mangiatordi, Beatrice Jlenia Pesce, Caterina Reccia
S4781	Resolving the OcuCheck: A Human-Centered Design Approach Matthew L.Bowman, Gina A. Taylor, Deana McDonagh, Leanne T. Labriola, Dipanjan Pan
S4784	The "T" shaped designer expertise. The "reverse-T" shaped designer horizon Daniele Baratta
S4787	The interface design for the application "Price My Job" Karolina Nunes Tolentino Costa, Claudia Regina Batista, Adhemar Maria do Valle Filho
S4791	The Preemie Pod: A Wearable Incubator Designed for Premature Infants to Engage in Kangaroo Care Amanda Henderson, Deana McDonagh
S4794	Threeing: Incorporating "Relational Circuits" into the Research Encounter Karl Julius Mendonca, Russell Morgan
S4796	What is Next for Design Semiotics Research? Searching for epistemological answers in design outcomes Felipe Domingues, Salvatore Zingale, Dijon De Moraes

## **Keynote speakers**

Nicolas Nova is an ethnographer and design researcher, working both as a Professor at the Geneva School of Arts and Design (HEAD – Genève) and as co-founder of The Near Future Laboratory, a research organization based in Europe and California. His work focuses on observing and documenting digital and new media practices, as well as creating design fictions, i.e. speculative designed objects exploring the experiences of near future. He holds a PhD in Human-Computer Interaction from the Swiss Institute of Technology (EPFL, Switzerland) and was previously a visiting scholar at Art Center College of Design (Pasadena), ENSCI - Les Ateliers (Paris) and Polictecnico di Milano.

Maurizio Montalti. Strongly rooted in a collaborative, research-based and experimental approach, Maurizio Montalti's work tends toward the exploration of the design discipline, aiming to investigate and reflect upon contemporary culture, thereby creating new opportunities and visions for both the creative industry and the broader social spectrum. Maurizio's practice, "Officina Corpuscoli", seeks to reveal unorthodox relationships among existing paradigms, aiming to promote the growth of critical thinking, through the development and materialisation of tangible alternatives. Maurizio holds a Master in Industrial Engineering from the University of Bologna (IT) as well as a Master in Conceptual Design in Context from the Design Academy Eindhoven (NL). His work has been widely shown in multiple museums, exhibitions and festivals, both nationally and internationally.

**Gavin Munro** is an artist and designer from Matlock, Derbyshire. Gavin has lent his hand to a number of different skills, from furniture to houses, and everything in between. Inspired by a childhood experience with a bonsai tree, and constantly encouraged throughout his life, Gavin finally made growing furniture his full time profession. He now lives in Wirksworth, Derbyshire, with his loving wife Alice, and their full-time boss, Lina, the lurcher.

Arturo Vittori is an Italian Artist, Architect and a Designer. His work is internationally known for merging cutting edge technologies together with ancient traditions resulting in projects on the edge between Art and Science that answer our society's most urgent needs. After graduating he gained experiences collaborating with Santiago Calatrava, Jean Nouvel, Future Systems, Anish Kapoor. He was Manager of Aircraft Cabin Design at Airbus and involved in Yachts and Cruisers design at Francis Design. Vittori, since 2002, is directing the research and design studio Architecture and Vision, Italy, he is also the CEO of the american NGO Warka Water Inc.

**Derrick De Kerckhove** (born 1944) is the author of The Skin of Culture and Connected Intelligence and Professor in the Department of French at the University of Toronto, Canada. He was the Director of the McLuhan Program in Culture and Technology from 1983 until 2008. In January 2007, he returned to Italy for the project and Fellowship "Rientro dei cervelli", in the Faculty of Sociology at the University of Naples Federico II where he teaches "Sociologia della cultura digitale" and "Marketing e nuovi media". He was invited to return to the Library of Congress for another engagement in the Spring of 2008. He is research supervisor for the PhD Planetary Collegium M-node directed by Francesco Monico. Since 2008 he oversees global art projects for Solstizio, co-founded by the artist Giuseppe Stampone.

Anna Pellizzari is the Executive Director at Material ConneXion Italia, is an expert on materials design, with more than 25 year of experience in the field. She has attended short courses at Domus Academy in Milan, Central St Martins of London, and the Fashion Institute of Technology in New York and worked in graphic design, textiles, design of materials, CMF. Her collaborations include several major brands in the sectors of sporting goods, automotive, interiors, packaging.

## **People**

## **Conference Chairs**

#### Loredana Di Lucchio

Associate Professor in Design, Sapienza University of Rome

#### Lorenzo Imbesi

Full Professor in Design, Sapienza University of Rome

## **Scientific Committee**

#### **Paul Atkinson**

Designer, Professor of Design & Design History, Sheffield Hallam Univerity (UK), President of EAD

#### **Andrea Branzi**

Architect, Distinguished Professor of Design, Politecnico di Milano (Italia)

#### **Rachel Cooper**

Distinguished Professor of Design Management and Policy, Lancaster University (UK), Director of ImaginationLancaster

#### **Donald Norman**

Director of Design Lab, University of California San Diego (USA)

#### **Tonino Paris**

Architect, Full Professor of Design, Sapienza University of Rome (Italy) and Distinguished Professor, East China Normal University of Shanghai (China)

#### **Rodrigo Rodriquez**

LL.M., Chairman of Forza Projects Ltd, Chairman of Material Connexion Italia Srl, Honorary President of U.E.A. - Union Européenne de l'Ameublement

#### **Bruce Sterling**

Writer, Speaker, Futurist, Design Instructor

## **Conference Managers**

#### **Angela Giambattista**

PhD in Design and Innovation, Research Fellow, Laboratory Sapienza Design Factory, Sapienza University of Rome

#### Viktor Malakuczi

PhD Candidate in Planning, Design, Technology of architecture (PDTa), Sapienza University of Rome

#### **Conference staff**

#### **Zoe Balmas**

PhD Candidate in PDTa, Sapienza University of Rome

#### **Paolo Cenciarelli**

Photographer, lecturer and founder of D.O.O.R

#### **Alex Coppola**

PhD Candidate in PDTa, Sapienza University of Rome

#### **Gianni Denaro**

Graduate in MSc in Product Design

#### Erminia D'Itria

Graduate in MSc in Product Design

#### Marta Laureti

PhD Candidate in PDTa, Sapienza University of Rome

#### **Manuel Muccillo**

Graduate in MSc in Product Design

#### Alessio Paoletti

PhD Candidate in PDTa, Sapienza University of Rome

#### Mariia Zolotova

PhD Candidate in PDTa, Sapienza University of Rome

#### Reviewers

We are very thankful to the international scientific community for its contribution to the double-blind peer review process.

Yoko Akama, Paul Atkinson, Tevfik Balcioglu, Silvia Barbero, Elisa Bertolotti, Alessandro Biamonti, Spyros Bofylatos, Gustavo Borba, Vasco Branco, Clare Brass, Sam Bucolo, Barbara Camocini, Angus Donald Campbell, Daria Cantu', Elena Caratti, Cabirio Cautela, Flaviano Celaschi, Manuela Celi, Medardo Chiapponi, Anne Chick, Eun Ji Cho, Carla Cipolla, Chiara Colombi, Sara Colombo, Marta Corubolo, Claudia De Giorgi, Chiara Del Gaudio, Alessandro Deserti, Antonino Di Raimo, Alpay Er, Ozlem Er, Mark Evans, Martyn Evans, Raffaella Fagnoni, Priscila Farias, Silvia Deborah Ferraris, Venere Ferraro, Elena Formia, Teresa Franqueira, Karine Freire, Maria luisa Galbiati, Laura Galluzzo, Giulia Gerosa, Luca Guerrini, Francesco E. Guida, Ashley Hall, Michael Hann, Christoph Holliger, Stefan Holmlid, Hans Kaspar Hugentobler, Salvatore Iaconesi, Ali O. Ilhan, Roberto Iñiguez Flores, Birgit Helene Jevnaker, Wolfgang Jonas, Ayelet Karmon, John Knight, Ilpo Koskinen, Tore Kristensen, Lia Krucken, Yanki Lee, Beatrice Lerma, Giuseppe Lotti, Alvise Mattozzi, Arianna Mazzeo, Mike McAuley, Catherine McDermott, Massimo Menichinelli, Giusepppe Mincolelli, Juan Claudio Monterrubio Soto, Nicola Morelli, Francesca Murialdo, Marina Parente, Silvia Pericu, Pier Paolo Peruccio, Margherita Pillan, Francesca Piredda, Annabel Pretty, Kuno Prey, Giovanni Profeta, Lucia Rampino, Liat Rogel, Valentina Rognoli, Fatina Saikaly, Maria Antonietta Sbordone, Paolo Tamborrini, Francesca Tosi, Paola Trapani, Raffaella Trocchianesi, Federica Vacca, Louise Valentine, Francesca Valsecchi, Artemis Yagou, Salvatore Zingale, Carola Zwick

### **Track Ambassadors**

Students of the Master of Science in Product Design at Sapienza University of Rome:

Gulnare Abdullayeva

Giulia Aliffi

John Alongi

Hoda Aman

Eugenia Maria Canepone

Elena Cardinali

Si Chen

Silvia Cosentino

Silvia Di Anselmo

Agyei Enoch

Sevin Gundes

Xiao Han

Nahid Leo

Maryam Mahdizadeh

Francesco Maietich

Amalia Nadita

Afshin Nazarieh

Tiziana Pace

Carmen Rotondi

Lorenzo Santini

Amir Shoushtari

Alexander Schurig

Sara Testa

Colin George Thomas

Margarita Velandia

Vu Viet

Xu Ziru



## The Design Journal



An International Journal for All Aspects of Design

ISSN: 1460-6925 (Print) 1756-3062 (Online) Journal homepage: http://www.tandfonline.com/loi/rfdj20

# A second life for Contemporary Ruins. Temporary Adaptive Reuse strategies of Interior Design to reinterpret vacant spaces

Barbara Camocini & Oxana Nosova

To cite this article: Barbara Camocini & Oxana Nosova (2017) A second life for Contemporary Ruins. Temporary Adaptive Reuse strategies of Interior Design to reinterpret vacant spaces, The Design Journal, 20:sup1, S1558-S1565, DOI: 10.1080/14606925.2017.1352680

To link to this article: <a href="http://dx.doi.org/10.1080/14606925.2017.1352680">http://dx.doi.org/10.1080/14606925.2017.1352680</a>

8	© 2017 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
	Published online: 06 Sep 2017.
	Submit your article to this journal 🗹
ılıl	Article views: 41
Q <sup>L</sup>	View related articles 🗹
CrossMark	View Crossmark data ☑

Full Terms & Conditions of access and use can be found at http://www.tandfonline.com/action/journalInformation?journalCode=rfdj20



doi: 10.1080/14606925.2017.1352680

# A second life for Contemporary Ruins. Temporary Adaptive Reuse strategies of Interior Design to reinterpret vacant spaces

Barbara Camocinia\*, Oxana Nosovab

**Abstract:** The numerous examples of newly constructed disused or unfinished (and therefore unused) buildings represent an important issue in the contemporary era. The significance of these structures is in the impact they have on the environment and on the life of citizens living around them. With the increasing awareness of the shortage of space, resources and structures, this phenomenon has now become an emergency. The goal of this analysis is to identify the role of *Interior Design* within *Temporary Adaptive Reuse* strategies geared to benefitting from *Contemporary Ruins*, preserving their identity and their memory in recent history. The aim of the paper is to envisage new future scenarios based on a creative and holistic Design approach, enabling *Contemporary Ruins* to become once more accessible and to bring them back to life by imagining how their social and cultural connections could be locally and globally renewed.

**Keywords:** change of use, adaptive reuse, contemporary ruins, urban demands, environmental sustainability

## 1. Introduction

The incompleteness of historical ruins and disused areas is a major subject in the creative activity and imagination of designers.

One relatively unexplored issue, however, is that of *Contemporary Ruins*, which represent an extremely important phenomenon in modern times.

In this paper, the word 'ruin' is used in its original meaning deriving from the Latin *ruĕre* – to collapse, to fall down, while 'contemporary' suggests a dynamic concept referring to our modern-day context. The term here refers to a recently built structure, dating back to no more than 100 years, in which humans are no longer present but are directly involved in the reasons for its disuse and abandonment

The expression *Contemporary Ruins* refers to two macro categories: unfinished and abandoned buildings. The fundamental difference is that, while the latter have had a lifespan ending with abandonment, the former have never been finished and used. These, we might say, are born as ruins, they have no history and have never known human presence. The causes that lead to the abandonment of buildings, whether under construction or having once been once inhabited, may be many, such as natural traumas or socioeconomic factors. These may cover unavoidable events of a

© 2017 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

<sup>&</sup>lt;sup>a</sup>Politecnico di Milano

<sup>&</sup>lt;sup>b</sup>Politecnico di Milano

<sup>\*</sup>Corresponding author e-mail: barbara.camocini@polimi.it

technogenic or natural emergency nature, or even human choices, such as the closure of a local industry, the end of the activities that led to the original development (of an area) or the conclusion of a major event. Indeed, large-scale international events can generate new decommissioning processes due to the abandonment of the structures which, once the event ends, are no longer needed. Contemporary society coexists with an enormous number of ruins all over the world. These might be public or private, designed for handicraft or productive purposes, residential, military, business or green parks, and they may also be on vastly different scales, ranging from small buildings to infrastructures to whole ghost cities.

#### 2. Ruins as a resource

The impact that ruins have on the place where they are located is undeniable. While it is true that historical ruins are respected as valuable heritage, the *contemporary ruins* discussed in this paper tend to provoke a very different reaction from the population. They are often seen as negative elements that disfigure the context, which bring about a tendency towards detachment and problems of various kinds. The main issues regard security, ownership negligence, maintenance and demolition costs, the spreading of depreciation through surrounding suburbs, and updated legislation. The other important issue is the lack of a general framework regulating the spreading of *contemporary ruins* on a local, regional or even national scale.

At the same time, the incompleteness of ruins, whatever the cause, becomes a stimulus for creativity produced by the dialogue between an incomplete reality and the imagination of the viewer. This is how a building survives in the limbo between two temporal requirements: not yet distant past, as in the case of a historical ruin, and no longer present, as a contemporary human habitat. Its future is unclear and mysterious. This appeal lies largely in the concept of gradual decadence, slow abandonment, the inexorable flow of time. The sight of ruins evokes different feelings; nostalgia for an impossible return to the past and the discovery of an inaccessible past tend to attract a perverse type of tourism. Intervention strategies include actions based on an approach which is similar to that of the restoration of historical buildings, resulting as a chance to complete, preserve, reconvert or demolish. The decision may be to demolish the residual testimonies and recreate a new urban fabric without any restrictions, or choose to preserve the ruin, building a new relationship between past and future.

Some theorists regard the opposition between reconstruction and complete destruction as a false problem because, since we cannot erase the past, eliminating ruins would mean denying history (Woods, 1993). On the other hand, highlighting the void of ruins, the space of loss, may constitute a valid alternative. Vacant buildings exert as much attraction as historical buildings. There is something intriguing about being able to enter and even touch ruins that are 'out of bounds'. There is no doubt that the size of the space and the evocative power of the place and its atmosphere, when processed by our imagination, create that sense of fascinating mystery that might be the cause of our interest.

## 3. A second life?

The natural destiny of ruins is their decline, the decay of their finishings, interiors and structures. This process goes on until ruins are perceived as 'other' places, places that do not necessarily have to welcome and interact with humans. They become like a parallel and alien world. This condition of 'alienation' plays an important role and makes ruins highly attractive, arousing our interest, curiosity and imagination. Ruins generally remain attractive as long as their decommissioning is maintained, becoming protected areas in which nature has the possibility to prevail again. Unused buildings and structures, whether finished or unfinished, may thus be contaminated and re-introduced in the natural cycle of life, exposed to constant change, until their decay and death. This process recalls

Gilles Clément's thoughts and his perception of the world as a big 'global garden' where humans 'leave space' to the natural flow of nature. With the same attitude, which shifts human from the centre of the scene, we wonder how far it is possible and appropriate to operate on the spaces of the ruins, interfering in their natural journey toward decay. Clément urges us not to stiffen the framework of the garden, or of the public space, but to act so that it can absorb the changes of the 'living' world (Clément G., 1999).

This paper focuses on the close relationship between us, the people of today, and *contemporary ruins*. This relationship is even more engaging than that with historical ruins, and it affects us directly because such structures were designed for us. Indeed, today's people are often directly responsible for the spread of *contemporary ruins*, interrupting the process of construction and abandoning places that are no longer useful. People are still involved in the existence of *contemporary ruins* and therefore have the opportunity to intervene more directly in the interpretation of their possible future.

When and why would human beings intervene to restore a space to usefulness?

The reason that triggers the re-functionalization processes of disused or unfinished spaces lies in the possibility of making them profitable once again through various approaches and methods. The best-known type of intervention, on which literature has focused more in the past, is the *change of use*, or *conversion* process. This approach does not necessarily require preserving traces of previous functions, but its main objective is to reintroduce the rehabilitated space into the economy cycle. This process often involves the creating of efficient and profitable new functions, which frequently leads to giving the place a new identity. *Change of use* has given rise, in history, to various types of spaces, often very similar, created, for example, by the re-functioning of industrial spaces, port areas or waterfronts. Such interventions can actually introduce elements of uniqueness and individuality, especially when they are spontaneous, as in the case of the industrial loft, or tend to reinterpret and exploit the traces of the past. The success of these processes is often found in the quality of the original interior, given by their size, light or materials, interpreted within the new functions.

Is the *change of use* process, conceived as a change towards a 'more effective final use', still profitable in respect to the short duration and specific needs of the modern era? Might this be one of the reasons for the spreading of *contemporary ruins*?

The practice of *change of use*, viewed as a 'final solution', is a strategy that is close to modern thought, which is geared to seeking permanent solutions, dimensional standards and clear categories (Branzi A., 2006). Instead, the mutability of the contemporary era leads us to flexible proposals that have a limited validity in time and then follow one another in more or less programmable sequences. The origin of the spreading of *contemporary ruins* is often the reduced duration of a function, the period in which a function keeps its value. This observation underlines the importance of the economic assessment of costs and benefits to be performed before any change of use operation. This is the reason why *change of use* and re-functionalization processes are sometimes blocked.

Adaptive reuse is the English term often internationally used to describe *change of use* processes. It has a richer meaning than *change of use* because it refers not only to the 'change' in function but also to the concept of 'restoring' to functionality following a previous decommissioning condition. The term 'adaptive' introduces an even deeper meaning, relating to the field of biology, which indicates the ability of living beings to adapt themselves to changes in their habitat. Indeed, the term 'adaptive' also introduces the variable of 'time', assigning to the spaces the ability to deal with subsequent requirements of upgrading, and generating a sequence of different functions of temporary duration. These functions may follow fragmentary sequences or small upgrades, with different gradients of change or with a renewed dynamism over time. This observation is very close to the concept of *resilience*, which is used in many different fields of research and which has been recently applied in architecture to indicate the ability of buildings to recover their efficiency after traumatic events, particularly of natural origin.

## 4. Designing with temporality and duration

The contemporary debate has shown that the efficiency of *change of use* interventions may be limited over time and that structures and spaces are constantly exposed to the risk of abandonment and vacancy. Therefore, the duration of re-functionalization projects is becoming emerging popular topic today and the term *temporary city* confirms the widespread diffusion of *temporary adaptive reuse* interventions (Bishop, Williams, 2012) within the urban environment. The importance of this approach to temporality, when pursued with the appropriate methods, is twofold:

- to test functions which are new to an urban context or innovative in an absolute sense;
- to interpret the local needs, being highly responsive, and to be able to easily update answers, together with the change of demand.

The value of short-term solutions lies directly in an awareness of their limited duration. If, before intervening, they are not programmed to be temporary, they often lead to a waste of resources. This is why increasing research has been carried out over the past 10 years on the management and implementation of these measures. Based on the above observations and the analysis of case studies from different countries and of different types, sizes and origins, we propose three categories representing various approaches to the temporary re-functionalization of *contemporary ruins*:

- 1. Event;
- 2. Sequence;
- 3. 'Interim'.

These three approaches all start from the concept of *intermediate use* (Haydn, Temel, 2006), which means that they are dealing with structures from when they start to be a vacant space until they change their status. None of the three approaches, in any case, necessarily brings structures to their final and permanent use.

The first approach, defined as *event*, shows a unique and unrepeatable opportunity to access the site. It helps to convey the *contemporary ruin* values. This unique event could be a party, a concert, an art installation, a rave party, etc. It may last a short time, but it can help to highlight the potential of the site and activate both the other two strategies, *sequence* and *interim*. The interior design approach, which is close to the set design discipline, allows the creation of accessible spaces, welcoming users in safe conditions, and especially assigning a new meaning, a new identity, to the space, or enhancing the existing space without intervening on the architectural structure.

Sequence, the second approach defined here, refers to a succession of interventions, which may also be unrelated and carried out for different purposes. This sequence may remain 'open', not necessarily geared to a final use or demolition; it could be either programmed in advance or updated in progress. This approach, however, is likely to produce an 'alibi' for endlessly postponing projects that involve the responsibility of important design decisions with major duration assumptions and allocation of considerable funds.

The third intervention, *interim*, could be triggered when the space is vacant and prolonged until a supposed final solution is set, either a renovation or demolition. Ronald Rietveld, architect and member of the Royal Netherlands Academy of Arts, founder of the Master's Program 'Studio Vacant NL' at the Sandberg Institute, introduced the expression 'interim strategy', from the Latin expression 'ad interim', which means a transition lasting a defined time (Till, 2011). It refers to short-term interventions that allow a given space to be made active while waiting for a more significant, perhaps permanent, final state. The so-called 'interim' space loses the meaning of 'sequence' of short term solutions, as it is filling a temporal and spatial gap between two conditions of an area of which the last condition is often considered the final one. The term 'fast post' Expo has been used in Italy to indicate the intervention of temporary *change of use* of the Expo 2015 site in Milan, while waiting to decide on and finance a final intended use. The main goal of this type of intervention was to

gradually introduce the place and the people to a new use, without losing the familiarity gained while frequenting the site during the six months of EXPO.

## 5. Interior Design for the Future of Contemporary Ruins

Such temporary measures will not change the primary features of the existing vacant spaces, as renovation, re-development or refurbishment are meant to do within the discipline of architecture. Instead, these interventions are related to the Interior Design discipline, close to the setting design approach, characterized by light and reversible technology, without providing for deep changes to the existing structures (Kincaid, 2002). More specifically, Interior Design could help the structure to be 'open' to new possibilities, even when unexpected events occur over time (these temporary interventions could make contemporary ruins accessible and visible, thus revealing their true potential.) They can help to develop new ideas or directions for possible use, testing them in real time. Indeed, as asserted above, we cannot assume that the change of use process will always lead to stable scenarios.

From a wider point of view, the *Design Approach* is acknowledged as fundamental in the transformation processes of the contemporary world, thanks to a holistic view geared to imagining and building (Manzini, 2015) the future through the joint actions of various players. Designers, in fact, are able to think systemically and put together heterogeneous sectors of intervention that can work in synergy. They also have the ability to work closely with the local and social context, thus enabling them to respond quickly to needs that arise over time, contemplating reversible solutions, breakage or updating.

Therefore, the Design discipline can highlight the potential of the three *temporary reuse strategies* described above – event, sequence and interim – defined by different intervention gradients, durability and perspectives of use for the future.

Contemporary ruins can be compared, from certain points of view, with the famous social housing projects by architect Alejandro Aravena, winner of the Prizker Prize in 2016. He envisioned a system of incremental social housing buildings where the additional part can be more relevant to the identity of residents. He designed only half of the homes, the 'hardware' half with the basic elements, using state resources and left the other half to the inhabitants, to becompleted according to their own needs and financial situation.

In a similar way, interior design can provide the 'second half', a direct physical interface between humans and contemporary ruins, even when ruins - by definition - have lost their original usefulness to humans. Interior space, therefore, may change constantly to adapt to humans when they decide to use the space again for new purposes, and interior design becomes the buffer, the lubricant, which allows these changes to be absorbed. Temporary adaptive reuse, as an 'open project' approach that does not necessarily lead to a permanent conversion of use, introduces setting-up strategies of intervention (Branzi, 2002) providing an additional system of elements that create new internal environments in the existing structure without changing it. In addition to this, the relationship between the new interior features and the original features of the structure often leads to a new interpretation of converted spaces. This relationship can introduce new future perspectives, envisioning changes that this new use could trigger in many different sectors, such as social, economic, urban, etc. By recovering certain categories defined by Graeme Brooker - professor of Interior Design at the Royal College of Art (UK) and expert of adaptive reuse strategies - for the reuse of vacant spaces, such as 'superuse' or 'reprogramming', the spaces of ruins can be activated, deactivated and updated over time. They provide a privileged place of experimentation for several recombinant strategies that confirm the importance of connecting the site-specific context with its cultural meaning.

Even when no substantial changes are to be made to the structure, the *interior design* project dealing with contemporary ruins starts with a meticulous site-specific analysis, combined with an understanding of the site's cultural value and its relationship with the surrounding area (Rietveld, 2014). This knowledge allows the designer to devise systems aimed at reuniting ruins with their local culture. Interior design can indeed convey narrative content about the relationship with the recent past, recovering the memory of the place, preserving traces of the past, predicting new future uses while retaining the traces of the passage of time. A narrative on the history of the surroundings connected with spaces rendered newly accessible to the public, through meaningful goods and services, encourages attendance and familiarity with the site. The opportunity for people to recognize their own identity in these spaces, through socially engaged and creative processes, fosters social cohesion and strengthens the local community. These observations highlight the importance of a sense-making activity that can combine design and culture through a profound knowledge of the society and local area at hand, building a scenario consisting of actions and uses of spaces. The case study project is EMA in Moscow. The goal of the project was to find the most economical and socially responsible way to deal with abandoned post-industrial land and to create a new identity, based on the history of the site. The plant had been producing electromedical apparatus since 1941; about a decade ago the company relocated and vacated the premises. The derelict factory site in the city centre was transformed by KOSMOS, a team of young architects, into a cultural centre for six months, before its demolition and commercial redevelopment into a new apartment block. The project comprised three elements: the existing buildings were wrapped in pipe insulation foil, creating one unique and distinctive backdrop. A "sky" of lights, electric cables and acoustic systems was set up in the courtyard, to allow the space to be adapted for different functions. The third element was a freestanding sculptural disk, which was used for projections. KOSMOS compounded various creative spatial interventions with a social media strategy, reanchored an urban fragment in the public memory and enhanced its use as a space, although it was useful as a form of public relations for the project.



Figure 1. Project EMA, 2015.

Contemporary ruins are part of recent history; these recently vacated structures recognized by local people as a part of their own recent history, can recall either periods of fervent activity or decline, sometimes meaningful pieces in the history of a community. Contemporary ruins are also bound up in a recent history that often has not yet been written - historicized - or disseminated; a history the complexity and detail of which risks being lost. The Adaptive Reuse process can thus provide an opportunity to reunite local culture with vacant structures, even though they are reinterpreted through new functions and meanings. This process allows the designer to establish and manage new functions, first of all in the local context, both connecting with the roots of the place and responding to the needs of the local people.

Not only does the narrative strategy apply to the local community as a target audience; it also promotes the site's use for an advanced type of tourism, coming to the surrounding environment from afar. Such tourists are interested in visiting lesser-known places of local history, which cannot usually be accessed.

Indeed, contemporary ruins, like classical ruins, are sometimes visual evidence of a failure or a traumatic event - as in the case of a nuclear power plant or the headquarters of a major company gone bankrupt – the appeal of which extends beyond the local community. Such relevance is often reinforced either by the iconic power of the abandoned structure, or by its uniqueness in terms of form and function. These features allow contemporary ruins to become part of a network of transnational interest and to become just as relevant and engaging as a still-functioning landmark building, such as for example the Guggenheim in Bilbao.

#### 6. Conclusion

The Design approach provides some effective strategies for the reuse of *contemporary ruins*. It can protect their original nature, respecting their unique atmosphere while at the same time restoring their important connection with their surroundings.

Interior Design allows access to *contemporary ruins* without touching their original architectural structures or changing their identity, but by assigning them new meanings and attracting new visitors. We can thus re-establish a relationship with the site and the local community, and on a larger scale too, and give a second life to such spaces, creating a new life cycle, the duration of which varies in each case. *Temporary Adaptive Reuse* is actually a tool for testing innovative functional and social concepts, and it can absorb the margin of error within its strategies of intervention, such as the *sequence* or the *event*.

The open question of the paper is to understand to what degree the three aforementioned categories - event, sequence and 'interim' - can be planned a priori, without losing sight of immediacy and its relevance to meeting the changing needs of a society and managing the ongoing changes to a ruin itself. It might be also relevant to define to what extent it is appropriate to design temporary solutions for the interiors of contemporary ruins and when a permanent solution may be more effective in respect to contemporary requirements.

## References

Bishop, P., & Williams, L. (2012). Temporary city. Oxon: Routledge

Branzi, A. (2002). Allestimento come metafora di una nuova modernità. *Lotus International*, n.115, Milan: Edizioni Lotus

Brooker, G. (2016) Adaptation strategies of Interior Architecture and Design, New York: Bloomsbury Visual Arts

Clément, G. (1999). Le jardin planétaire. Réconcilier l'homme et la nature. Paris: Albin Michel

- Haydn, F., & Temel, R. (2006) Temporary Urban Spaces: Concepts for the Use of City Spaces. Berlin: Birkhauser
- Kincaid D. (2002), Adapting buildings for changing uses. Guidelines for change of use refurbishment London: Spon Press
- Manzini, E. (2015) Design when everybody designs. Cambridge Massachusetts: MIT Press
- Rietveld, R., Rietveld, E., Bey, J., Mackic A. (2014) *Vacancy studies. Experiments & Strategic Interventions in Architecture*. Rotterdam: Nai010 Publishers
- Till, K.E. (2011). Interim Use a Former Death Strip? Art, Politics, and Urbanism at Skulpturenpark Berlin Zentrum. In Silberman, M. (Ed) *The German Wall: Fallout in Europe*. London: Palgrave Macmillan, 99-122
- Woods, L. (1993). War and Architecture, New York: Princeton Architectural Press.
- Zurlo, F., & Bohemia, E. (2014). Editorial: Designers as cultural intermediaries in an era of flux. In Proceedings of the 19th Conference on Design Management in an Era of Disruption (pp. 5-8). London, UK: Design Management Institute.

#### About the Authors:

**Barbara Camocini** Architect PhD, Assistant Professor and Researcher at the Design Department of Politecnico di Milano. As a member of Lab.I.R.Int – Innovation and Research Laboratory on Interiors - she investigates Adaptive Reuse practices and their effects upon urban evolution and advanced interiors.

**Oxana Nosova** has a Master of Science degree in Interior Design (Politecnico di Milano) and a degree in Environment Architecture (Moscow Architectural University). She has been a Ph.D Candidate in Design at Politecnico di Milano since 2015.