No Boundaries Design

Boundaries Design

Design Principles & Practices

12th International Conference

5th to 7th March 2018
ELISAVA School of Design and Engineering Barcelona

XII International Conference

Design Principles & Practices

Twelfth International Conference on
Design Principles & Practices

"No Boundaries Design"

ELISAVA Barcelona School of Design and Engineering | Barcelona, Spain | 5–7 March 2018

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**Design for
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COMMON GROUND

Twelfth International Conference on Design Principles & Practices
www.designprinciplesandpractices.com

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www.cgnetworks.org

Dear Conference Attendees,

Welcome to Barcelona!

We hope you will enjoy the coming three days of debate, presentations, and plenaries that will bring together academics, professionals, researchers, and practitioners to explore the present and the future of design around the world.

With this, the Twelfth Conference on Design Principles and Practices, we wanted to prompt some reflection on the traditional boundaries collapsing between people, things, ideas, and places in the face of new forces of technological, political, social, and cultural evolution. Often it seems that we are losing our awareness of what could be our future and our role and responsibility to participate in its building. What will be our identities, needs, or expectations?

Design stands in-between such new material and immaterial relations. Designers can play a unique role in answering these questions by facilitating debate, reflection, and transformative actions.

This conference aims to explore how designers assume a social and a political role by defining our material world. Today, this seems to be a key responsibility: combining new knowledge and critical thinking, as well as consciousness and creativity, to transform large-scale issues based on the real needs of the community—which is where human life happens. The emerging missions and visions of design education, research, and practice—along with the economic, political, and social impacts—will be discussed.

In general terms, we are asking for our keynotes, scholars, academics, and professionals to open the conversation about the ways in which design is overpassing any established boundaries between cultures, disciplines, social rules, and political places. "No Boundaries Design" is the new challenge: Where and how do we implicitly construct boundaries, explicitly deconstruct them when they act as barriers, or build them in resilient ways when they are necessary? How can design play a role in giving people the voice to choose their own way of thinking and acting, allowing them to be agents of change within and beyond boundaries?

The conference is hosted by ELISAVA Barcelona School of Design and Engineering and DESIS Lab ELISAVA in Barcelona, which should be considered one of the most interesting and creative institutions of design in Spain. This should also be considered to examine the character of design in Spain: its roots, professional context, and emerging design research. Spanish culture lies in the heart of Europe and at the crossroad of a variety of historical influences, making it a cradle for creativity and a living place. At a time when we see new and old borders rising, the conference in Spain at ELISAVA is tacking the issue of design crossing the boundaries, to understand the chances we have to enable bottom-up social innovation crossing borders and cultures.

We hope you will enjoy the Spanish and international leading thinkers on design that we have selected as Plenary Speakers. Marti Guixè (Interior and Industrial Designer, Barcelona, Spain, and Berlin, Germany) will introduce a non-conventional way to understand the culture of products bridging food and performance. Oscar Tomico (Head of the Design Engineering Bachelor's Degree Program at ELISAVA) will focus on the design process of creating ultra-personalized smart textile services in the form of soft wearables involving stakeholders of the textile industry. Ariel Guersenzvaig (Senior Lecturer and Researcher at ELISAVA) will discuss design theory and methodology, service design, and the ethics of design and technology. Albert Fuster (Academic Director at ELISAVA) and Ezio Manzini (Founder of DESIS Network and Honorary Professor at Polytechnic University of Milan, Italy) will focus on "Design for City Making," a program lead by DESIS Lab ELISAVA and the DESIS Thematic Cluster on Collaborative Cities.

In addition, we hope you will appreciate the choice of the conference venue and the activities connecting design, culture, food, and life across this city. The conference is located in the ELISAVA Barcelona School of Design and Engineering in the heart of Las Ramblas, 30-32, in Barcelona.

Finally, as Spain is a rich and complex mix of cultures and a place to share different ideas and fuel creativity, we look forward to connecting and learning about each other's different stories and ingenious expressions.

Loredana Di Lucchio, Arianna Mazzeo, Lorenzo Imbesi
Co-Chairs of the Conference

Dear Design Principles and Practices Delegates,

Welcome to Barcelona and to the Twelfth International Conference on Design Principles & Practices. The Design Principles and Practices Research Network—its conference, journal collection, and book imprint—was created to provide a transdisciplinary forum that explores the purpose of design as well as the use of designed artefacts and processes. It is a forum that brings together a diverse range of researchers, teachers, and practitioners to discuss the nature and future of design—resulting in conversations that weave between the theoretical and the empirical, research and application, and market pragmatics and social idealism.

Conferences can be ephemeral spaces. We talk, learn, get inspired, but these conversations fade with time. This Research Network supports a range of publishing modes in order to capture these conversations and formalize them as knowledge artifacts. We encourage you to submit your research to the Design Principles & Practices Journal Collection. We also encourage you to submit a book proposal to the Design Principles & Practices Book Imprint.

In partnership with our Editors and Network Partners the Design Principles & Practices Research Network is curated by Common Ground Research Networks. Founded in 1984, Common Ground Research Networks is committed to building new kinds of knowledge communities, innovative in their media and forward thinking in their messages. Common Ground is a meeting place for people, ideas, and dialogue. However, the strength of ideas does not come from finding common denominators. Rather, the power and resilience of these ideas is that they are presented and tested in a shared space where differences can meet and safely connect—differences of perspective, experience, knowledge base, methodology, geographical or cultural origins, and institutional affiliation. These are the kinds of vigorous and sympathetic academic milieus in which the most productive deliberations about the future can be held. We strive to create places of intellectual interaction and imagination that our future deserves.

I would like to thank everyone who has poured such a phenomenal amount of work into this conference including our co-organizers, ELISAVA Barcelona School of Design and Engineering, and our recognized Conference Chairs: Professor Loredana Di Lucchio from Sapienza University of Rome, Professor Lorenzo Imbesi from Sapienza University of Rome, and Arianna Mazzeo from ELISAVA Barcelona School of Design and Engineering, as well as our supporters, DESIS Lab ELISAVA and DESIS Network. I'd also like to thank my Design Principles & Practices colleagues, Jeremy Boehme, Sara Hoke, McCall Macomber, Tatjana Portnova, Helen Repp, and Jessica Weinhold-Brokish, who have put such a significant amount of work into this conference.

We wish you all the best for this conference, and we hope it will provide you every opportunity for dialogue with colleagues from around the corner and around the globe.

Yours sincerely,

Dr. Phillip Kalantzis-Cope
Chief Social Scientist
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Our Mission

Common Ground Research Networks aims to enable all people to participate in creating collaborative knowledge and to share that knowledge with the greater world. Through our academic conferences, peer-reviewed journals and books, and innovative software, we build transformative research networks and provide platforms for meaningful interactions across diverse media.

Our Message

Heritage knowledge systems are characterized by vertical separations—of discipline, professional association, institution, and country. Common Ground identifies some of the pivotal ideas and challenges of our time and builds research networks that cut horizontally across legacy knowledge structures. Sustainability, diversity, learning, the future of the humanities, the nature of interdisciplinarity, the place of the arts in society, technology's connections with knowledge, the changing role of the university—these are deeply important questions of our time which require interdisciplinary thinking, global conversations, and cross-institutional intellectual collaborations. Common Ground is a meeting place for these conversations, shared spaces in which differences can meet and safely connect—differences of perspective, experience, knowledge base, methodology, geographical or cultural origins, and institutional affiliation. We strive to create the places of intellectual interaction and imagination that our future deserves.

Our Media

Common Ground creates and supports research networks through a number of mechanisms and media. Annual conferences are held around the world to connect the global (the international delegates) with the local (academics, practitioners, and community leaders from the host research network). Conference sessions include as many ways of speaking as possible to encourage each and every participant to engage, interact, and contribute. The journals and book imprint offer fully-refereed academic outlets for formalized knowledge, developed through innovative approaches to the processes of submission, peer review, and production. The Research Network also maintains an online presence—through presentations on our YouTube channel, quarterly email newsletters, as well as Facebook and Twitter feeds. And Common Ground's own software, **Scholar**, offers a path-breaking platform for online discussions and networking, as well as for creating, reviewing, and disseminating text and multi-media works.

Design Principles & Practices Research Network

Exploring the nature, meaning, and purpose of design

Design Principles & Practices | Research Network

The Design Principles & Practices Research Network is brought together around a common concern for the nature, meaning, and purpose of design. The research network interacts through an innovative, annual face-to-face conference, as well as year-round online relationships, a family of peer reviewed journals, and book imprint—exploring the affordances of the new digital media.

Conference

The Design Principles & Practices Conference is built upon four key features: Internationalism, Interdisciplinarity, Inclusiveness, and Interaction. Conference delegates include leaders in the field as well as emerging scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer delegates multiple opportunities to engage, to discuss key issues in the field, and to build relationships with scholars from other cultures and disciplines.

Publishing

The Design Principles & Practices Research Network enables members to publish through two media. First, research network members can enter a world of journal publication unlike the traditional academic publishing forums—a result of the responsive, non-hierarchical, and constructive nature of the peer review process. The Design Principles & Practices Journal Collection provides a framework for double-blind peer review, enabling authors to publish into an academic journal of the highest standard. The second publication medium is through the book imprint, Design Principles & Practices, publishing cutting edge books in print and digital formats. Publication proposals and manuscript submissions are welcome.

Community

The Design Principles & Practices Research Network offers several opportunities for ongoing communication among its members. Any member may upload video presentations based on scholarly work to the research network YouTube channel. Quarterly email newsletters contain updates on conference and publishing activities as well as broader news of interest. Join the conversations on Facebook and Twitter. Or explore our new social media platform, **Scholar**.

Design Principles & Practices | **Themes**

Theme 1: Design Education

- Design thinking: cognitive modes and learning styles
- Design approaches, strategies, methodologies, and tactics
- Problem solving: recognition procedures, hypothesis development, reasoning processes, solution testing
- The meaning of innovation and creativity, in theory and practice
- Residues: learning from our historical and contemporary design experiences
- Cases: empirical studies of design practices
- Professional stances: acquiring the designer's skills, capacities, and attitudes
- Methods of observation, frames of interpretation, and criteria for assessment of design
- Grounding theory in the everyday and theorizing the empirical
- Conceiving design: complexity, heterogeneity, and holism
- Design pedagogies: teaching and learning in the design professions
- Science and technological system in design
- Educational designs: teacher as instructional designer
- Designed artifacts and processes as learning experiences
- Design narratives: stories and sense making in the design process
- Points of comparison: precedent, analogy, and metaphor in the design process
- Critical analysis in design evaluation and history of design
- Instructional design

Theme 2: Design in Society

- Design in social policy, planning, and politics
- Health, safety, and public welfare in design practice
- Design as business
- Markets for design and designing for markets
- Design as a factor of production, an economic force: valuing 'intangibles'
- The design of human systems and cultural processes
- Design without designers: everyday, amateur, organic, and living designs
- Ergonomic design
- Design for diversity: culture, gender, sexual orientation, and disability
- Globalization and the design professions
- Design politics: making technologies, spaces, and institutions more responsive to human needs
- The ends of design: pragmatic, aesthetic, and emancipatory
- The humanistic and the technological: tensions and synergies
- Values, culture and knowledge systems in design: the role of perspective, subjectivity, and identity
- Ethnography, psychology, and sociology of design
- Universal design and access
- Cultural studies: difference, diversity, and multiculturalism in design
- Cross-cultural encounters: working on diverse and global design teams
- Niche markets: working with diverse clients and users

On the nature and form of the objects of design

Theme 3: Designed Objects

- Industrial design
- Ergonomics
- Ceramics
- Decorative arts
- Engineering and design
- Fashion
- Interior design
- Jewelry
- Textiles
- Retail design

On representation and communication using the medium of the image

Theme 4: Visual Design

- Communications design
- Visual arts
- Fine Arts
- Illustration
- Photography
- Film and video
- Graphic design
- Typography
- Technical communications
- Telecommunications design
- Interface design
- Digital, internet, and multimedia design
- Animation
- Communications designs and knowledge media
- Digital, software, and social media design
- Virtual product development
- Designing information systems and architectures
- Copyright, patents, and other intellectual property: proprietary and in the commons, commercial and in the public domain
- Synesthesia or crossing representational modes: language, image, space, and medium
- Modeling and representation: graphic, symbolic, logical, and mathematical
- Computer simulations and computational tools: conceiving new objects and spaces

Theme 5: Design Management and Professional Practice

- People and artifacts: exploring uses and usability
- Designing design: from conceptualization to specification
- Multidisciplinary and cross-professional approaches to design
- Professionalism and its trajectories: narrowing specialisms or multiskilling?
- Evaluation, judgment, and decision-making in complex contexts
- Working with research and researchers: design practitioners as researchers or users of research
- The business of speed: the economics and pragmatics of rapid delivery and design alongside construction
- The logics of collaboration: interactivity, responsiveness, and reflexivity in communities of practice
- Co-design: designing with users
- Public and professional understandings of the role of the designer
- The democratization of design and public accountability: consultation and consensus building
- Evolutionary design: collaborations over time
- Expertise as facilitation: designers who know what they might not know
- Participatory design systems
- Project management methodologies and processes
- Design 'projects': planning, management, and project afterlife
- User-centered design and the changing role of the designer
- Close to customers: design as dialogue
- Client-centered project management
- Common knowledge: sharing insights, research, theories, and designs in communities of practice
- Design evaluation: working out what works
- Scenario planning: designing for alternative futures
- Making and breaking codes: regulation in the design industries
- Legal aspects of design: risk management, documentation, compliance, regulation, and contractual relations
- Professional communities; issues of (self-)governance and (de)regulation
- Professional ethics
- Documenting the design process: methodologies, heuristics, and routines
- Product and service typologies, schemas, ontologies, and thesauri
- Design knowledge management

On building design, landscape design, and sustainable design practices

Theme 6: Architectonic, Spatial, and Environmental Design

- Architecture
- Urban planning
- Landscape architecture
- Event design
- Interaction design
- Lighting design
- Theater and set design
- Sustainability: design in an environmental, economic, social, and cultural setting
- Eco design: environmental and green design
- Environmental standards and regulations
- Environmental certifications
- Energy use and environmental footprints
- Water and natural resource use
- Life cycles: designing products and services for the longer term
- Recycling
- Sustainability built in: working with scientists, social scientists, and economists
- Metropolis: cross-disciplinary perspectives on cities of the future
- Nature designed: parks and wilderness access
- Rural designs

No Boundaries Design

We're living in a complex world where any old certainties, beliefs, and systems of knowledge are losing value and authority. Today, many traditional boundaries between people, things, ideas, as well as places, seem to be collapsing in the face of new forces of technological, political, social, and cultural evolution. Often it seems that we are losing our awareness of what could be our future and our role and responsibility to participate in its building. What will be our identities, needs, or expectations?

Design stands in between such new material and immaterial relations. Designers can play a unique role in answering these questions by facilitating debate, reflection, and transformative actions. Designers always assume a social and a political role by defining our material world. Nowadays this seems to be a key responsibility: combining new knowledge, critical thinking, as well as consciousness and creativity to transform large scale issues on the basis of the real needs of the community—which is where human life happens.

In general terms, this means to work in ways that overpass any established boundaries between cultures, disciplines, social rules, and political places. "No Boundaries Design" is the new challenge. Where and how do we implicitly construct boundaries, explicitly deconstruct them when they act as barriers, or build then in resilient ways when they are necessary? How can design play a role in giving people the voice to choose their own way of thinking and acting, themselves to be agents of change within and beyond boundaries?

Design Practices

The business of design is in a state of flux. The roles, the tasks and the personae of designers are changing.

No longer the technical expert, the heroic aesthete or the inspired individual of our earlier modern past, the contemporary designer draws upon dispersed sources of creativity and innovation. Collaboration, today, is key. For design practitioners, a central paradox of our times is the increasing specialization, on the one hand, but on the other, the need for more broad-ranging and holistic integration of design tasks, working between and across design disciplines. Design is becoming an ever-more social, indeed sociable, process.

The imperative to collaborate, moreover, extends well beyond the domain of professional interaction and working in design teams. It also extends to the relationship with the users, clients and consumers of design. Designers today need to build deeply collaborative relationships with their 'public'. Participatory design and user-centered design are just two key phrases that capture the spirit of this imperative.

Broadly speaking, the balance of design agency is shifting from the all-knowing designer who creates things that are good for passively grateful consumers, to a dialogue which involves more careful and systematic processes of user consultation, research, co-design, testing, evaluation, and continuous redesign. The emerging design democracy turns the designer into conversationalist, facilitator, mentor, and pedagogue. As a consequence, the legacy self-understanding of the designer as artist, technocrat and expert is thrown into question. The new politics of design plays through tensions between historical roles and contemporary expectations. Along the way, what's lost and what's gained? What is inherently difficult about the new designer-user relations, and what is intrinsically liberating?

As soon as the balance of agency shifts, a polymorphous, polyvalent social world presents itself. 'Any color you like, as long is it's black', said the heroic Henry Ford, who conveniently assumed that every consumer in his mass market had identical needs and interests. But as soon as you start talking niche markets, usability, and customization, you discover diversity in an ever more dazzling range of hues and shades—local and global, of different abilities and disabilities, of ages and cultures, and genders and affinities. The paradox of today's design democracy is that designing for everybody means designing for many different interests and uses.

Then there are some new lines of social insistence: that designers work to objectives of sustainability, access, safety, and the social good. These are matters of increasingly intricate regulation and compliance. Or, if you will internalize these insistences, they become matters of self-regulating professional ethics.

These are some of the things that are, quite simply, changing the job of being an architect, urban planner, industrial designer, engineer, visual designer, web designer, knowledge manager, communications or media designer, fashion designer, usability researcher, or instructional designer—to name just a few of the design vocations.

Design Modalities

Design's modalities are also in a state of flux, its working tools of representation, communication, visualization, and imagination.

Digitization of text, sound, and still and moving image is one important site of transition. This has spawned new practices of modeling and simulation, of prefiguring the real in the virtual. It has also introduced the virtual as a design end-in-itself. The result is a new multimodality and synesthesia. Design conceptualization requires that designers move between modalities of language, image, sound, space, touch, and gesture. The meaning of their design might be articulated one way, then another, or all at one time in a deeply integrated process of synesthesia.

Designers need to able to 'do' a multimodal professional design discourse. They must speak and write their way through complex collaborations with co-designers and interactions with users. They need to be able to 'do' visualization as they explore design alternatives through mental images and picture their visions into reality. They need to be able to represent spatial realities, prefiguring the three dimensional through the two dimensional and turning plans into tactile artifacts, manipulable objects, architectural spaces, and navigable landscapes. The new, digital media provide newly flexible and accessible tools for multimodal and synaesthetic thinking. Today's media inventions have become the mothers of design necessity.

Such innovation is not simply for innovation's sake. It is also for the most practical of reasons. There is an increasing need to document for the purposes of planning and project management, regulation and compliance, risk assessment and risk management, and project specification and contractual clarity.

Design Principles

So, what is this thing design? What is the design of something? And what does it mean to 'do' design?

The word 'design' has this fortuitous double meaning, simultaneously describing intrinsic structure and the willful act of making. Design is at once morphology and construction. Morphology: design is inherent, whether its sources be organic, unconscious, common sense or the carefully premeditated product of the professional work of the designer. Design in this sense is structure, form, and function.

Construction: design is also an act, a manifestation of agency, a process of transformation. The narrative of design runs like this: take the available designs in the world, inherent to found objects, architectures, landscapes, processes, human relationships, cultures. Then engage in the act of designing, or rework and revoice these designs. This is never just a business of reproduction and replication. It always involves an injection of the designer's social interests and cultural experiences—their subjectivity and identity, no less. The residue, as the narrative draws to a momentary close, is the world transformed, no matter in how small a way. But the world is never quite the same again, and the redesigned is returned to the world. Design agency traces of transformation that join the repertoire of available designs—new openings to new design narratives.

Such a view contrasts with older understandings of design in which designers were passive recipients of expert routines. Their apprenticeship into professional practice had led them to learn to reproduce received, sanctioned and authoritative design forms. This may have been appropriate for a world that set store on stability and uniformity.

But today's world is a place of change and diversity. Designing, in a dynamic, transformative sense, can be enabling, even emancipatory. It is a process of changing the world.

About

The Design Principles & Practices Research Network is dedicated to the concept of independent, peer-led groups of scholars, researchers, and practitioners working together to build bodies of knowledge related to topics of critical importance to society at large. Focusing on the intersection of academia and social impact, the Design Principles & Practices Research Network brings an interdisciplinary, international perspective to discussions of new developments in the field, including research, practice, policy, and teaching.

Membership Benefits

As a Design Principles & Practices Research Network member you have access to a broad range of tools and resources to use in your own work:

- Digital subscription to the Design Principles & Practices Journal Collection for one year.
- Digital subscription to the book imprint for one year.
- One article publication per year (pending peer review).
- Participation as a reviewer in the peer review process, with the opportunity to be listed as a Reviewer.
- Subscription to the research network e-newsletter, providing access to news and announcements for and from the Research Network.
- Option to add a video presentation to the research network YouTube channel.
- Free access to the **Scholar** social knowledge platform, including:
    - ◇ Personal profile and publication portfolio page
    - ◇ Ability to interact and form communities with peers away from the clutter and commercialism of other social media
    - ◇ Optional feeds to Facebook and Twitter
    - ◇ Complimentary use of **Scholar** in your classes—for class interactions in its Community space, multimodal student writing in its Creator space, and managing student peer review, assessment, and sharing of published work.

Engage through Social Media

www.facebook.com/DesignPrinciplesAndPractices

@designpap | #DPP18

Present and Participate in the Conference

You have already begun your engagement in the research network by attending the conference, presenting your work, and interacting face-to-face with other members. We hope this experience provides a valuable source of feedback for your current work and the possible seeds for future individual and collaborative projects, as well as the start of a conversation with research network colleagues that will continue well into the future.

Publish Journal Articles or Books

We encourage you to submit an article for review and possible publication in the journal. In this way, you may share the finished outcome of your presentation with other participants and members of the research network. As a member of the network, you will also be invited to review others' work and contribute to the development of the research network knowledge base as a Reviewer. As part of your active membership in the research network, you also have online access to the complete works (current and previous volumes) of the journal and to the book imprint. We also invite you to consider submitting a proposal for the book imprint.

Design Principles & Practices | Advisory Board

The principal role of the Advisory Board is to drive the overall intellectual direction of the Design Principles & Practices Research Network and to consult on our foundational themes as they evolve along with the currents of the field. Board members are invited to attend the annual conference and provide important insights on conference development, including suggestions for speakers, venues, and special themes. We also encourage board members to submit articles for publication consideration to Design Principles & Practices Journal Collection as well as proposals or completed manuscripts to the Design Principles & Practices Book Imprint.

We are grateful for the continued service and support of the following world-class scholars and practitioners.

Scholar

A Social Knowledge Platform

Create Your Academic Profile and Connect to Peers

Developed by our brilliant Common Ground software team, **Scholar** connects academic peers from around the world in a space that is modulated for serious discourse and the presentation of knowledge works.
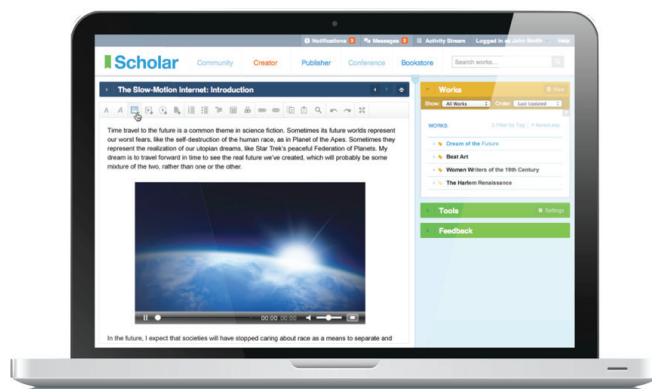
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- Creating *new academic work* in our innovative publishing space.
- Building a *peer review network* around your work or courses.

Scholar Quick Start Guide

1. Navigate to http://cgscholar.com. Select [**Sign Up**] below 'Create an Account'.
2. Enter a "**blip**" (a very brief one-sentence description of yourself).
3. Click on the "**Find and join communities**" link located under the YOUR COMMUNITIES heading (On the left hand navigation bar).
4. Search for a community to join or create your own.

Scholar Next Steps – Build Your Academic Profile

- **About**: Include information about yourself, including a linked CV in the top, dark blue bar.
- **Interests**: Create searchable information so others with similar interests can locate you.
- **Peers**: Invite others to connect as a peer and keep up with their work.
- **Shares**: Make your page a comprehensive portfolio of your work by adding publications in the Shares area - be these full text copies of works in cases where you have permission, or a link to a bookstore, library or publisher listing. If you choose Common Ground's hybrid open access option, you may post the final version of your work here, available to anyone on the web if you select the 'make my site public' option.
- **Image**: Add a photograph of yourself to this page; hover over the avatar and click the pencil/edit icon to select.
- **Publisher**: All Common Ground community members have free access to our peer review space for their courses. Here they can arrange for students to write multimodal essays or reports in the Creator space (including image, video, audio, dataset or any other file), manage student peer review, co-ordinate assessments, and share students' works by publishing them to the Community space.

Scholar

A Digital Learning Platform

Use **Scholar** to Support Your Teaching

Scholar is a social knowledge platform that *transforms the patterns of interaction in learning by putting students first,* positioning them as knowledge producers instead of passive knowledge consumers. **Scholar** provides scaffolding to encourage making and sharing knowledge drawing from multiple sources rather than memorizing knowledge that has been presented to them.

Scholar also answers one of the most fundamental questions students and instructors have of their performance, "How am I doing?" Typical modes of assessment often answer this question either too late to matter or in a way that is not clear or comprehensive enough to meaningfully contribute to better performance.

A collaborative research and development project between Common Ground and the College of Education at the University of Illinois, **Scholar** contains a Research Network space, a multimedia web writing space, a formative assessment environment that facilitates peer review, and a dashboard with aggregated machine and human formative and summative writing assessment data.

The following **Scholar** features are only available to Common Ground Research Network members as part of their membership. Please email us at *support@cgscholar.com* if you would like the complimentary educator account that comes with participation in a Common Ground conference.

- Create projects for groups of students, involving draft, peer review, revision, and publication.
- Publish student works to each student's personal portfolio space, accessible through the web for class discussion.
- Create and distribute surveys.
- Evaluate student work using a variety of measures in the assessment dashboard.

The Scholar Learning and Feedback Ecology
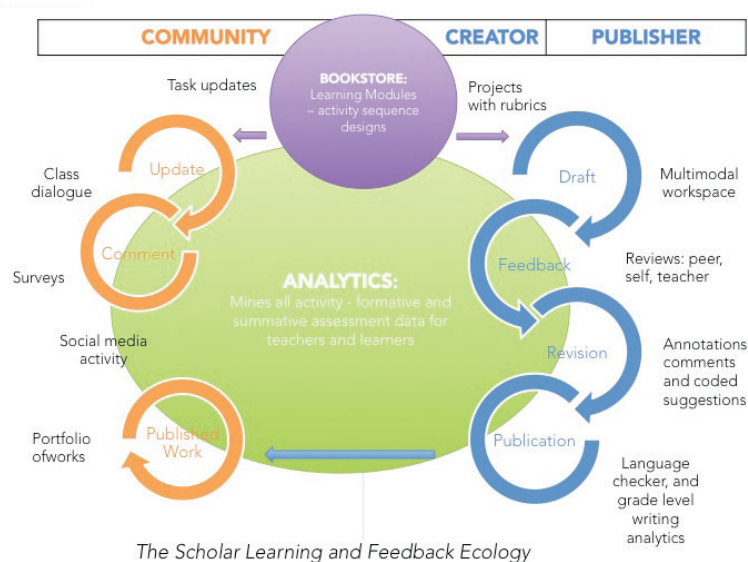
Scholar is a generation beyond learning management systems. It is what we term a *Digital Learning Platform*—it transforms learning by engaging students in powerfully horizontal "social knowledge" relationships. **For more information, visit: http://knowledge.cgscholar.com.**

Design Principles & Practices Journal Collection

Aiming to create an intellectual frame of reference for interdisciplinary conversations on the role of the design in society

Design Principles & Practices | Collection of Journals

About

The Design Principles & Practices Journal Collection is a site of discussion exploring the meaning and purpose of design, as well as speaking in grounded ways about the task of design and the use of designed artefacts. The resulting conversations weave between the theoretical and the empirical, research and application, market pragmatics and social idealism.

In professional and disciplinary terms, the journals in the Design Principles & Practices Journal Collection traverse a broad sweep to construct a transdisciplinary dialogue which encompasses the perspectives and practices of: anthropology, architecture, art, artificial intelligence, business, cognitive science, communication studies, computer science, cultural studies, design studies, education, e-learning, engineering, ergonomics, fashion, graphic design, history, information systems, industrial design, industrial engineering, instructional design, interior design, interaction design, interface design, journalism, landscape architecture, law, linguistics and semiotics, management, media and entertainment, psychology, sociology, software engineering, technical communication, telecommunications, urban planning and visual design.

Collection Editors

Lorenzo Imbesi, Sapienza Università di Roma, Rome, Italy

Loredana Di Lucchio, Sapienza Università di Roma, Rome, Italy

Associate Editors

Articles published in the Design Principles & Practices Journal Collection are peer reviewed by scholars who are active members of the Design Principles & Practices Knowledge Community. Reviewers may be past or present conference delegates, fellow submitters to the collection, or scholars who have volunteered to review papers (and have been screened by Common Ground's editorial team). This engagement with the knowledge community, as well as Common Ground's synergistic and criterion-based evaluation system, distinguishes the Design Principles & Practices Journal Collection's peer review process from journals that have a more top-down approach to refereeing. Reviewers are assigned to papers based on their academic interests and scholarly expertise. In recognition of the valuable feedback and publication recommendations that they provide, reviewers are acknowledged as Associate Editors in the volume that includes the paper(s) they reviewed. Thus, in addition to the Design Principles & Practices Journal Collection's Editors and Advisory Board, the Associate Editors contribute significantly to the overall editorial quality and content of the collection.
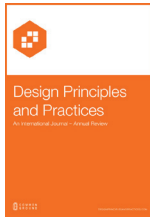
Design Principles and Practices: An International Journal – Annual Review

ISSN: 1833-1874

Indexing: Art Abstracts (EBSCO), Art Index (EBSCO), Art Full Text (EBSCO), Art Source (EBSCO), EBSCO Polytechnic Studies Collection: India, Genamics Journal Seek, Scopus, The Australian Research Council (ERA), Ulrich's Periodicals Directory

DOI: 10.18848/1833-1874/CGP

About: *Design Principles and Practices: An International Journal - Annual Review* consists only of articles considered to be of wide interest across the design field, selected by our editorial team. Candidates for inclusion in this survey journal include works by invited contributors, papers offered by plenary speakers at the conference, and top-ranked articles selected from thematic journal submissions for their wide applicability and interest across the field.

The International Journal of Architectonic, Spatial, and Environmental Design

ISSN: 2325-1662 (print) | 2325-1670 (online)

Indexing: Art Source (EBSCO), Genamics Journal Seek, Scopus, Ulrich's Periodicals Directory

DOI: 10.18848/2325-1662/CGP

About: *The International Journal of Architectonic, Spatial, and Environmental Design* primary interests are in building design, landscape design, and sustainable design practices. As well as papers of a traditional scholarly type, this journal invites presentations of practice—including experimental forms of documentation and exegeses that can be interrogated with equal validity through a process of academic peer review. For instance, this might take the form of a series of images and plans, with explanatory notes that articulate with other, significantly similar or different—and explicitly referenced—places, sites, or material objects.

The International Journal of Design Education

ISSN: 2325-128X (print) | 2325-1298 (online)

Indexing: Art Source (EBSCO), Genamics Journal Seek, Scopus, Ulrich's Periodicals Directory

DOI: 10.18848/2325-128X/CGP

About: *The International Journal of Design Education* explores aspects of learning to become a designer and to develop modes of "design thinking". It explores design strategies, methodologies, and tactics. It analyzes forms of professional stance. And it examines pedagogies of engagement with design purposes, designed objects, and design.

Design Principles & Practices | Collection Titles

The International Journal of Design in Society

About: *The International Journal of Design in Society* interrogates the social sources and social effects of design. Focal points of interest include design policy, the human impacts of design, design values, and design business.
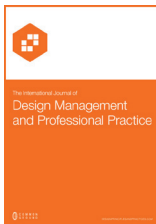
The International Journal of Design Management and Professional Practice

About: *The International Journal of Design Management and Professional Practice* explores the organization of design, design work, and design as a professional practice.

The International Journal of Designed Objects

About: *The International Journal of Designed Objects* examines the nature and forms of the objects of design, including the products of industrial design, fashion, interior design, and other design practices.
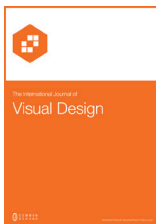
The International Journal of Visual Design

About: *The International Journal of Visual Design* explores processes and practices of representation and communication using the medium of the image. Areas of interest include communications design, visual arts, illustration, photography, film and video, graphic design, typography, interface design, internet design, animation, and computer simulations.

Journal Collection Submission Process and Timeline

Below, please find step-by-step instructions on the journal article submission process:

1. **Review the Requirements:** All article submissions must meet the Article Requirements listed on our Author Guidelines page (http://cgnetworks.org/support/author-guidelines). Before submitting your article, please thoroughly review these requirements, and revise your article to follow these rules. Initial submissions which do not meet these requirements will be returned to the author(s) for revision.

2. **Upload the Submission:** Once you have revised your initial submission to meet the article requirements, you may then upload your submission in one of two ways:

   ◇ If you are not attending a CGRN conference and you simply wish to submit your article for consideration to one of the CGRN academic journals, please use the following guide: Submitting an Article to the Journal (http://cgnetworks.org/support/submitting-an-article-to-the-journal).

   ◇ If you are presenting at a conference, your conference registration includes a complimentary Research Network Membership* (see Step 6). Please upload your article submission using your conference proposal (this will allow you to skip Step 6 of the process). For assistance in uploading, please use the Journal Article Submission for Scholar Event Attendees guide: (http://cgnetworks.org/support/journal-article-submission-using-the-conference-portal).

3. **Checking Progress:** Once your article is received, you can view the status of its progress by logging into your CGPublisher account at www.cgpublisher.com. In time, CGPublisher will be retired, and our publishing will be managed through our new all-in-one platform, CG Scholar. For now, only Common Ground conferences have been completely integrated into CG Scholar. Publishing is only partially integrated into CG Scholar. After the publication process is complete, published articles appear in the CG Scholar Bookstore under the corresponding journal title. We'll keep you updated as progress continues, and if you ever have questions, you can always reach us at support.cgnetworks.org.

4. **Initial Submission Accepted for Peer Review:** Submitted articles are then verified against the Article Requirements (listed in the Author Guidelines). If your article satisfies these requirements, your identity and contact details are then removed, and the article is matched to two appropriate referees and sent for review. Please note, during this time authors are eligible to be selected to as a reviewer for other articles in this same stage. Full details regarding the rules, expectations, and policies on peer review can be found on our Peer Review Policies page.

5. **Peer Review Decision:** When both referee reports are uploaded, and after the referees' identities have been removed, you will be notified by email through cgpublisher. Your message will provide with a link to view the reports, if you have trouble, see our guide (http://cgnetworks.org/support/how-to-download-your-referee-reports). Articles which are rejected once in the peer review process are allowed a second opportunity to be reviewed by two new reviewers. To be reviewed by two new reviewers, you will need make revisions based on the comments and feedback of the first round of review, and these changes must be detailed using a change note (http://cgnetworks.org/support/change-note-journal-article). If an article is not accepted by peer review after this second opportunity, it must be withdrawn from consideration.

6. **Membership Confirmation:** If your article has been accepted or accepted with revisions, it will enter the membership confirmation stage. We require at least one author associated with the article to have a unique Research Network Membership or Conference registration (http://cgnetworks.org/support/register-for-a-membership). *Please note, a paid conference registration includes a complimentary Research Network Membership, this will allow you to skip this step.*

7. **Publication Agreement:** Next you will be asked to accept the Publishing Agreement. If you are interested in Hybrid Open Access, this step is the best time to register for Open Access Publication (http://cgnetworks.org/journals/hybrid-open-access).

8. **Prepare the Final Submission:** After the publication agreement is final, you will have 30 days to complete any revisions to your final submission and upload your article. Please ensure your final submission meets the Final Submission Requirements before uploading your article (http://cgnetworks.org/support/final-submission-downloads-and-guides). This includes such criteria as the correct the use of the Chicago Manual of Style (17th edition) and the other listed requirements (http://cgnetworks.org/support/chicago-manual-of-style-citations-quick-guide). Articles which have been accepted with revisions will require a change note to be included with the final submission. *Articles which do not meet these requirements will be returned for revision until these requirements are satisfied.*

9. **Final Inspection / "Ready for Typesetting":** Once we have received the final submission of your article, our Publishing Department will give your article a final review. During this step, your workflow status will be listed as "Ready for Typesetting," indicating that the final submission is ready for inspection.

10. **Copyediting and Proof Inspection:** If the final submission meets the Final Submission Requirements, the article will then begin typesetting. At this phase you might be required to assist in correcting minor problems relating to grammar, spelling, citations, or references. You will be contacted when the typeset proof is available for inspection.

11. **Article Publication:** Individual articles are published "Web First" to our CG Scholar Bookstore (https://cgscholar.com/bookstore). After web-first publication, complete journal issues follow annually, biannually, or quarterly depending on the journal. Web-first published articles include a full citation and a registered DOI permalink. Be sure to keep your CG Scholar profile up-to-date (https://cgscholar.com/identity/) and add your ORCID iD (https://orcid.org/register) to maximize your article visibility.

Submission Timeline

You may submit your article for publication to the journal at any time throughout the year. The rolling submission deadlines are as follows:

- Submission Round 1 – 15 January
- Submission Round 2 – 15 April
- Submission Round 3 – 15 July
- Submission Round 4 (final) – 15 October

Note: If your article is submitted after the final deadline for the volume, it will be considered for the following year's volume. The sooner you submit, the sooner your article will begin the peer review process. Also, because we publish "Web First," early submission means that your article may be published with a full citation as soon as it is ready, even if that is before the full issue is published.

Hybrid Open Access

All Common Ground Journals are Hybrid Open Access. Hybrid Open Access is an option increasingly offered by both university presses and well-known commercial publishers.

Hybrid Open Access means some articles are available only to subscribers, while others are made available at no charge to anyone searching the web. Authors pay an additional fee for the open access option. Authors may do this because open access is a requirement of their research-funding agency, or they may do this so non-subscribers can access their article for free.

Common Ground's open access charge is $250 per article–a very reasonable price compared to our hybrid open access competitors and purely open access journals resourced with an author publication fee. Digital articles are normally only available through individual or institutional subscriptions or for purchase at $5 per article. However, if you choose to make your article Open Access, this means anyone on the web may download it for free.

Paying subscribers still receive considerable benefits with access to all articles in the journal, from both current and past volumes, without any restrictions. However, making your paper available at no charge through Open Access increases its visibility, accessibility, potential readership, and citation counts. Open Access articles also generate higher citation counts.

Institutional Open Access

Common Ground is proud to announce an exciting new model of scholarly publishing called Institutional Open Access.

Institutional Open Access allows faculty and graduate students to submit articles to Common Ground journals for unrestricted open access publication. These articles will be freely and publicly available to the whole world through our hybrid open access infrastructure. With Institutional Open Access, instead of the author paying a per-article open access fee, institutions pay a set annual fee that entitles their students and faculty to publish a given number of open access articles each year.

The rights to the articles remain with the subscribing institution. Both the author and the institution can also share the final typeset version of the article in any place they wish, including institutional repositories, personal websites, and privately or publicly accessible course materials. We support the highest Sherpa/Romeo access level—Green.

For more information on how to make your article Open Access, or information on Institutional Open Access, please contact us at support@cgnetworks.org.

Design Principles & Practices | Journal Awards

International Award for Excellence

The Design Principles & Practices Research Network presents an annual International Award for Excellence for new research or thinking in the area of images and image making. All articles submitted for publication in the Design Principles & Practices Journal Collection are entered into consideration for this award. The review committee for the award is selected from the International Advisory Board for the journal and the annual Design Principles & Practices Conference. The committee selects the winning article from the highest-ranked articles emerging from the review process and according to the selection criteria outlined in the reviewer guidelines.

Award Winners for Volume 11

Lisa Zamberlan, University of New South Wales, Sydney, Australia
Stephanie Wilson, University of New South Wales, Sydney, Australia

For the Article

"Reconceiving Creativity in Design Studio Education," *The International Journal of Design Education*, Volume 11, Issue 3

Abstract

The rapid expansion of design practice beyond a focus on artefact into new domains of service, strategy and social innovation has reignited discussion in scholarly literature on the role of creativity in design thinking and practice. Collective forms of creativity and the use of broader creative cultures are increasingly critical to sustainable practice, allowing designers to respond effectively to complex cultural, social, environmental, and economic challenges. Changes in the landscape of the design industry raise important questions about how design educators can foster the kinds of creative experiences and skills that will allow students to effectively engage in the new array of professional design opportunities available to them in the twenty-first century. This article describes a first-year interior architecture studio that aims to enhance students' creative capacity by setting up a "total learning environment" (Reid and Petocz, 2004) for creativity through actively legitimising creativity and providing ample opportunity for collaboration to enhance creativity. The article identifies key learning objectives underpinning the course design, outlines the curriculum strategies employed, and examines the outcomes of the studio framed by creativity research and recent literature on the changing role of design practice.

Research Network Membership and Personal Subscriptions

As part of each conference registration, all conference participants (both virtual and in-person) have a one-year digital subscription to the entire Design Principles & Practices Journal Collection. This complimentary personal subscription grants access to both the current volume of the collection as well as the entire backlist. The period of complimentary access begins at the time of registration and ends one year after the close of the conference. After that time, delegates may purchase a personal subscription.

To view articles, go to https://cgscholar.com/bookstore and select the "Sign in" option. An account in CG Scholar has already been made on your behalf; the username/email and password are identical to your CG Publisher account. After logging into your account, you should have free access to download electronic articles in the bookstore. If you need assistance, select the "help" button in the top-right corner, or contact support@cgscholar.com.

Journal Subscriptions

Common Ground offers print and digital subscriptions to all of its journals. Subscriptions are available to the full Design Principles & Practices Journal Collection, individual journals within the collection, and to custom suites based on a given institution's unique content needs. Subscription prices are based on a tiered scale that corresponds to the full-time enrollment (FTE) of the subscribing institution.

For more information, please visit:
- http://designprinciplesandpractices.com/journals/hybrid-open-access
- Or contact us at subscriptions@cgnetworks.org

Library Recommendations

Download the Library Recommendation form from our website to recommend that your institution subscribe to the Design Principles & Practices Journal Collection: http://cgnetworks.org/support/recommend-a-subscription-to-your-library.

Design Principles & Practices Book Imprint

Aiming to set new standards in participatory knowledge creation and scholarly publication

Design Principles & Practices Book Imprint

Call for Book Reviewers

Common Ground Research Networks is seeking distinguished peer reviewers to evaluate book manuscripts.

As part of our commitment to intellectual excellence and a rigorous review process, Common Ground sends book manuscripts that have received initial editorial approval to peer reviewers to further evaluate and provide constructive feedback. The comments and guidance that these reviewers supply is invaluable to our authors and an essential part of the publication process.

Common Ground recognizes the important role of reviewers by acknowledging book reviewers as members of the Editorial Review Board for a period of at least one year. The list of members of the Editorial Review Board will be posted on our website.

If you would like to review book manuscripts, please send an email to books@cgnetworks.org with:

- A brief description of your professional credentials
- A list of your areas of interest and expertise
- A copy of your CV with current contact details

If we feel that you are qualified and we require refereeing for manuscripts within your purview, we will contact you.

Call for Books

Common Ground is setting new standards of rigorous academic knowledge creation and scholarly publication. Unlike other publishers, we're not interested in the size of potential markets or competition from other books. We're only interested in the intellectual quality of the work. If your book is a brilliant contribution to a specialist area of knowledge that only serves a small intellectual community, we still want to publish it. If it is expansive and has a broad appeal, we want to publish it too, but only if it is of the highest intellectual quality.

We welcome proposals or completed manuscript submissions of:

- Individually and jointly authored books
- Edited collections addressing a clear, intellectually challenging theme
- Collections of articles published in our journals
- Out-of-copyright books, including important books that have gone out of print and classics with new introductions

Book Proposal Guidelines

Books should be between 30,000 and 150,000 words in length. They are published simultaneously in print and electronic formats and are available through Amazon and as Kindle editions. To publish a book, please send us a proposal including:

- Title
- Author(s)/editor(s)
- Draft back-cover blurb
- Author bio note(s)
- Table of contents
- Intended audience and significance of contribution
- Sample chapters or complete manuscript
- Manuscript submission date

Proposals can be submitted by email to books@cgnetworks.org. Please note the book imprint to which you are submitting in the subject line.

Design for Social Innovation in Canada

Lorenzo Imbesi

Design has always played a role in the process of production, transformations in society and the economy, shifts in technology and impacts on the environment. The nature of the changes created by our post-industrial era is challenging the character of design and its role in society.

The post-industrial era is creating complex projects for technology, service, systems, strategy and products. Clients are even becoming undefined stakeholders, and this can be extended to the entire community and the environment.

The rise of digital technology and the knowledge society are introducing a new culture, which can be open, participatory, shared and collaborative. Here the designer is acting as a researcher, always questioning the character of the project, its outcomes and process. Open access, co-design, crowdfunding, digital manufacturing, open-source, DIY, enabling systems and networking can be included in the toolbox of the designer and can create opportunities to drive the change towards sustainability, equity and democracy. Social innovation is leveraging forms of collaboration and co-production in which designers, innovators, users and communities co-create knowledge and solutions for a wide range of social needs, exploiting the networking technologies.

This book explores a number of areas where design can contribute to face the contemporary transformations in our society with real-life collaborative research and innovation projects. Through a number of Canadian social innovation case studies collected in social, environmental and technological fields, we recognize how the role of the designer cannot be limited to the production of finished objects; rather, designers can create tools and platforms to help users and citizens participate in projects, even allowing forms of personalization.

Author Bio:

Lorenzo Imbesi is an architect with a PhD in environmental design and a professor at Sapienza University of Rome (Italy), coordinating the Design Unit of the Department of Planning, Design and Technology. Previously, he was associate professor, School of Industrial Design (Ottawa, Canada), where he was chair of the Master of Design MDes. He is critic and essayist for many reviews and journals. He served as co-director of the magazine "DIID – Disegno Industriale" until 2011 and is currently editor of *Design Principles and Practices: an International Journal* (Common Ground Publishing, Chicago), director of FIELDS. *An Interdisciplinary Design Journal* and member of the Editorial Advisory Board of *The Design Journal* (Bloomsbury Publishing, London). He has authored papers for recognized international journals, periodical scientific reviews, and has curated books and monographic issues. Among his works, he is author of *InterAction by Design* (2009), *09 YoungDesign* (2009), *Ethics & Design* (2008), and *D_Generation* (2007).

Digital Interfaces in Situations of Mobility: Cognitive, Artistic, and Game Devices

Bernard Guelton (ed.)
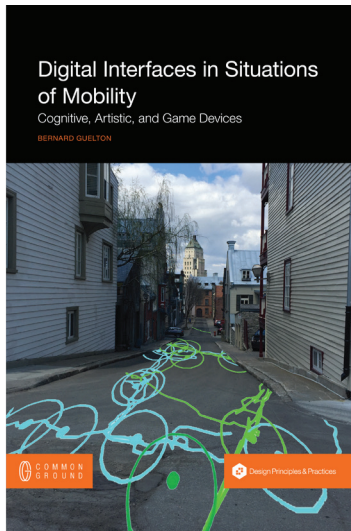
This book is the result of an international program of conferences and round tables in Paris 1 Sorbonne with participants from Japan, Canada, England, Switzerland, Malta, and France. The participants consider the growing number of artistic, digital, fictional, and game devices that are based on user mobility and interaction through digital interfaces. Through exploration, experimentation, and the creation of alternate reality art devices, questions about the limits between real, virtual, and fictional worlds are discussed. The characteristics of these three worlds and their confrontation with one another require new ways of elaborating and analyzing creations. How do digital interfaces accompany mobility and how is mobility redefining these interfaces? What are the roles of digital interfaces in connecting someone to his or her spatial and social environment? What is the importance of spatial co-construction by several interacting subjects? The book is divided in three parts: 1) *Game Devices:* Game Narrative & Alternate Reality Games, 2) *Devices, Medias and Technologies Analyses:* Auditory and Movie Spaces; Scientific Issues and Intention Mining in Mobile Environments, 3) *Artistic Issues:* GPS Images, Cognitive and Aesthetic perspectives.

Editor Bio:

Since the late 1980s, **Bernard Guelton** has worked to develop art that questions the social, architectural, and urban contexts in which he operates. Relationships between architecture and fiction characterize part of his achievements, designed for actors and places that are quite specific. Mobile works of art and urban games make up new developments that cross-fertilize his research team's works. At the university, he leads the *Fictions and Interactions* team UMR ACTE CNRS 8218 which questions the specificities of fiction from the perspectives of artistic and visual practices.

Distant Voices: Design and Development from an Alternative Perspective

Carl Harrison
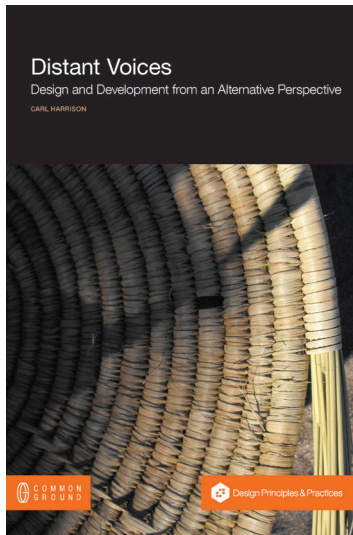
The contemporary globalised nature of design and design aesthetics can be found all around us in the must have branded goods sold in London, New Delhi and Lagos. Although much of this modern vocabulary can be traced back to even older creative narratives that still exist in many parts of the developing world, they themselves are often unable to compete on an equal playing field with this internationalist language. This book hopes to stimulate a much needed debate on the nature of product development in the developing world, to identify the reasons for this present situation and to review the potential of alternative approaches to creativity in a non-western context. It suggests a number of alternative creative strategies to help those in the developing world initiate innovative product directions of their own in order to challenge this all-pervasive internationalist model and to act as a catalyst for change.

Author Bio:

Carl Harrison is a design consultant and practitioner who has been involved in many product development projects around the globe. His experiences working in remote locations taught him the value of cultural diversity over similarity and introduced him to the fascinating cosmological realities that underpin the world views of many within the developing world. It was these experiences, set against the sad reality that many of these ancient ways of being are slowly disappearing altogether, that prompted him to explore how these distant voices of the past could inform the development of contemporary high value products of the future.

Alternative Perception of Design: From Lucy to Bernini

Kenneth Segal and Jonathan Ventura
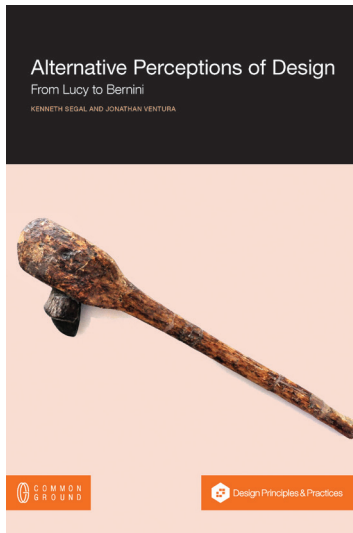
Just think about how many objects you've used, from the moment you woke up this morning to the moment you sat down to read this book. The toothbrush, the cup you used to drink your coffee, the clothes you put on, the chair or sofa you're sitting on and the tablet you may be using to read this book. The fact is that we live in a world of design—totally surrounded by designed objects. They are so ubiquitous that it is hard to imagine a world without them. Every single object that we use or have is the result of a thought process involving designers, engineers, manufacturers, and technology. Where did it all start? What were the historical and social influences that brought about these culturally multi-coded objects? In this volume, we try to answer these questions using a multi-disciplinary approach, combining design theories, history, and design anthropology. By considering design in its broadest sense we hope to present an alternative perception of design, unlike the classic type of introductory volumes dedicated to the subject. Using examples from industrial design, graphic design, and architecture, the book is laid out thematically, rather than chronologically. Starting with design in the Paleolithic era and then the Neolithic revolution, our journey takes us through prehistoric, ancient history, medieval times, Renaissance, and Baroque design as it manifested in religion, militarism, political agendas, topography, and historical creativity. Naturally, while the history of design is the main issue of this volume, it is rooted in contemporary socio-cultural developments, aiming to offer an alternative approach to practitioners and anyone else who is interested in the fascinating world of design.

Author Bios:

Prof. Kenneth Segal is a leading industrial designer in the field of transportation and an associate professor at the Department of Inclusive Design at Hadassah College in Jerusalem. Segal has founded, built, and headed two academic departments of Industrial Design in Israel, in Shenkar School of Engineering and Design and the Hadassah Academic College. In doing so, he has been one of the leading figures to define, mold, and improve Israel's design education discipline. A visiting lecturer at the National Institute of Design (NID) in Ahmdebad India, Segal teaches the history of design, design culture, and design methodology.

Dr. Jonathan Ventura is a design anthropologist and is currently a senior lecturer at the Department of Inclusive Design at Hadassah Academic College, Jerusalem, and at Bezalel Academy of Art and Design. He is also a research fellow at the Helen Hamlyn Centre for Design, Royal College of Art, London. He specializes in applied anthropology, design anthropology, and social and medical design. His latest publications include "Uncanny Mechanics: Industrial Design and the Threatened Body" in *Design Philosophy Papers* and "Walls, Enclaves and the (Counter) Politics of Design" in *Journal of Urban Design*.

Design Principles & Practices Conference

Curating global interdisciplinary spaces, supporting professionally rewarding relationships

Conference History

Founded in 2007, the International Conference on Design Principles & Practices offers an interdisciplinary forum to explore the meaning and purpose of design. In professional and disciplinary terms, the network traverses a broad sweep to construct a trans-disciplinary dialogue, which encompasses a wide array of design paradigms and practices.

The International Conference on Design Principles & Practices is built upon four key features: Internationalism, Interdisciplinarity, Inclusiveness, and Interaction. Conference delegates include leaders in the field as well as emerging artists and scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer delegates multiple opportunities to engage, to discuss key issues in the field, and to build relationships with scholars from other cultures and disciplines.

Past Conferences

- 2007 - Imperial College, London, UK
- 2008 - University of Miami, Miami USA
- 2009 - Technical University Berlin, Berlin, Germany
- 2010 - University of Illinois at Chicago, Chicago, USA
- 2011 - Sapienza University of Rome, Rome, Italy
- 2012 - University of California, Los Angeles, USA
- 2013 - Chiba University, Chiba, Japan
- 2014 - UBC Robson Square in Vancouver, Canada
- 2015 - University Center Chicago, Chicago USA
- 2016 - Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil
- 2017 - Institute without Boundaries at George Brown College, Toronto, Canada

Plenary Speaker Highlights

The International Conference on Design Principles & Practices has a rich history of featuring leading and emerging voices from the field, including:

- **Banny Banerjee**, Founder, Stanford ChangeLabs, Stanford, USA (2012)
- **Philip Beesley**, Professor, University of Waterloo, Ontario, Canada (2012)
- **Aldo Cibic**, Founder, Cibic & Partners and Cibicworkshop, Milan, Italy (2017)
- **Luisa Collina**, Dean of Design School, Politecnico di Milano, Milan, Italy (2017)
- **Christian Guellerin**, Executive Director, L'Ecole de design Nantes Atlantique, Nantes, France (2011)
- **Lorraine Justice**, Dean of College of Imaging Arts and Sciences, Rochester Institute of Technology, Rochester USA (2014)
- **Yoichiro Kawaguchi**, Professor, The University of Tokyo, Tokyo, Japan (2013)
- **Lev Manovich**, Professor, City University, New York, USA (2012)
- **Ezio Manzini**, Engineer, Politecnico di Milano, Milan, Italy (2007)
- **Sol Sender**, VSA Parnters, Chicago, USA (2010)

Past Partners

Over the years the International Conference on Design Principles & Practices has had the pleasure of working with the following organizations:

Carleton University,
Ottawa, Canada (2014)

Chiba University,
Chiba, Japan (2013)

Cumulus: International Association of Universities and Colleges of Art, Design and Media
Helsinki, Finland (2016–2017)

Emily Carr University,
Vancouver, Canada (2014)

European Academy of Design
UK (2017)

Institute without Boundaries at George Brown College,
Toronto, Canada (2017)

Pontifical Catholic University of Rio de Janeiro (PUC-Rio),
Rio de Janeiro, Brazil (2016)

Sapienza University of Rome,
Rome, Italy (2011)

Become a Partner

Common Ground Research Networks has a long history of meaningful and substantive partnerships with universities, research institutes, government bodies, and non-governmental organizations. Developing these partnerships is a pillar of our Research Network agenda. There are a number of ways you can partner with a Common Ground Research Networks. Contact us at support@designprinciplesandpractices.com to become a partner.

Conference Principles and Features

The structure of the conference is based on four core principles that pervade all aspects of the research network:

International

This conference travels around the world to provide opportunities for delegates to see and experience different countries and locations. But more importantly, the Twelfth International Conference on Design Principles & Practices offers a tangible and meaningful opportunity to engage with scholars from a diversity of cultures and perspectives. This year, delegates from over 41 countries are in attendance, offering a unique and unparalleled opportunity to engage directly with colleagues from all corners of the globe.

Interdisciplinary

Unlike association conferences attended by delegates with similar backgrounds and specialties, this conference brings together researchers, practitioners, and scholars from a wide range of disciplines who have a shared interest in the themes and concerns of this network. As a result, topics are broached from a variety of perspectives, interdisciplinary methods are applauded, and mutual respect and collaboration are encouraged.

Inclusive

Anyone whose scholarly work is sound and relevant is welcome to participate in this network and conference, regardless of discipline, culture, institution, or career path. Whether an emeritus professor, graduate student, researcher, teacher, policymaker, practitioner, or administrator, your work and your voice can contribute to the collective body of knowledge that is created and shared by this network.

Interactive

To take full advantage of the rich diversity of cultures, backgrounds, and perspectives represented at the conference, there must be ample opportunities to speak, listen, engage, and interact. A variety of session formats, from more to less structured, are offered throughout the conference to provide these opportunities.

Plenary

Plenary speakers, chosen from among the world's leading thinkers, offer formal presentations on topics of broad interest to the community and conference delegation. One or more speakers are scheduled into a plenary session, most often the first session of the day. As a general rule, there are no questions or discussion during these sessions. Instead, plenary speakers answer questions and participate in informal, extended discussions during their Garden Conversation.

Garden Conversation

Garden Conversations are informal, unstructured sessions that allow delegates a chance to meet plenary speakers and talk with them at length about the issues arising from their presentation. When the venue and weather allow, we try to arrange for a circle of chairs to be placed outdoors.

Talking Circles

Held on the first day of the conference, Talking Circles offer an early opportunity to meet other delegates with similar interests and concerns. Delegates self-select into groups based on broad thematic areas and then engage in extended discussion about the issues and concerns they feel are of utmost importance to that segment of the community. Questions like "Who are we?", "What is our common ground?", "What are the current challenges facing society in this area?", "What challenges do we face in constructing knowledge and effecting meaningful change in this area?" may guide the conversation. When possible, a second Talking Circle is held on the final day of the conference, for the original group to reconvene and discuss changes in their perspectives and understandings as a result of the conference experience. Reports from the Talking Circles provide a framework for the delegates' final discussions during the Closing Session.

Themed Paper Presentations

Paper presentations are grouped by general themes or topics into sessions comprised of three or four presentations followed by group discussion. Each presenter in the session makes a formal twenty-minute presentation of their work; Q&A and group discussion follow after all have presented. Session Chairs introduce the speakers, keep time on the presentations, and facilitate the discussion. Each presenter's formal, written paper will be available to participants if accepted to the journal.

Colloquium

Colloquium sessions are organized by a group of colleagues who wish to present various dimensions of a project or perspectives on an issue. Four or five short formal presentations are followed by a moderator. A single article or multiple articles may be submitted to the journal based on the content of a colloquium session.

Focused Discussion

For work that is best discussed or debated, rather than reported on through a formal presentation, these sessions provide a forum for an extended "roundtable" conversation between an author and a small group of interested colleagues. Several such discussions occur simultaneously in a specified area, with each author's table designated by a number corresponding to the title and topic listed in the program schedule. Summaries of the author's key ideas, or points of discussion, are used to stimulate and guide the discourse. A single article, based on the scholarly work and informed by the focused discussion as appropriate, may be submitted to the journal.

Workshop/Interactive Session

Workshop sessions involve extensive interaction between presenters and participants around an idea or hands-on experience of a practice. These sessions may also take the form of a crafted panel, staged conversation, dialogue or debate—all involving substantial interaction with the audience. A single article (jointly authored, if appropriate) may be submitted to the journal based on a workshop session.

Poster Sessions

Poster sessions present preliminary results of works in progress or projects that lend themselves to visual displays and representations. These sessions allow for engagement in informal discussions about the work with interested delegates throughout the session.

Innovation Showcase

Researchers and innovators present products or research and development. All presentations should be grounded in presenters research experience. Promotional conversations are permissible, however, products or services may not be sold at the conference venue.

Virtual Lightning Talk

Lightning talks are 5-minute "flash" video presentations. Authors present summaries or overviews of their work, describing the essential features (related to purpose, procedures, outcomes, or product). Like Paper Presentations, Lightning Talks are grouped according to topic or perspective into themed sessions. Authors are welcome to submit traditional "lecture style" videos or videos that use visual supports like PowerPoint. Final videos must be submitted at least one month prior to the conference start date. After the conference, videos are then presented on the network YouTube channel. Full papers can based in the virtual poster can also be submitted for consideration in the journal.

Virtual Poster

This format is ideal for presenting preliminary results of work in progress or for projects that lend themselves to visual displays and representations. Each poster should include a brief abstract of the purpose and procedures of the work. After acceptance, presenters are provided with a template and Virtual Posters are submitted as a PDF. Final posters must be submitted at least one month prior to the conference start date. Full papers based on the virtual poster can also be submitted for consideration in the journal.

Monday, 5 March

8:00–9:00	Conference Registration Desk Open
9:00–9:30	Conference Opening—Phillip Kalantzis-Cope, Chief Social Scientist, Common Ground Research Networks, Champaign, Illinois, USA
9:30–10:00	Welcome Address—Arianna Mazzeo, Director, Masterlab in Service Design Systems, Desislab Elisava Leader, Barcelona, Spain; Loredana Di Lucchio, Architect, Researcher, Professor, Sapienza University of Rome, Rome, Italy
10:00–10:35	Plenary Session—Oscar Tomico, Program Head, Design Engineering Bachelor's Degree Program, ELISAVA School of Design and Engineering, Barcelona, Spain, Assistant Professor, Industrial Design, Eindhoven University of Technology, Eindhoven, Netherlands *"Towards a Research Program in the Interdisciplinary Field of Soft Wearables and Smart Textiles"*
10:35–11:05	Garden Conversation and Coffee Break
11:05–11:50	Talking Circles
11:50–12:50	Lunch
12:50–14:30	Parallel Sessions
14:30–14:45	Coffee Break
14:45–16:25	Parallel Sessions
16:25–17:25	Welcome Reception

Tuesday, 6 March

8:15–9:00	Conference Registration Desk Open
9:00–9:25	Daily Update
9:25–10:00	Plenary Session—Albert Fuster, Academic Director, ELISAVA Barcelona School of Design and Engineering, Barcelona, Spain; Ezio Manzini, Founder, DESIS Network, Distinguished Professor on Design for Social Innovation, ELISAVA Barcelona School of Design and Engineering, Barcelona, Spain, Honorary Professor, Polytechnic University of Milan, Milan, Italy, Guest Professor, Jiangnan University, Wuxi, China *"The Making of Collaborative Cities"*
10:00–10:30	Garden Conversation and Coffee Break
10:30–12:10	Parallel Sessions
12:10–13:10	Lunch
13:10–13:55	Parallel Sessions
13:55–14:10	Coffee Break
14:10–15:50	Parallel Sessions
15:50–16:00	Transition Break
16:00–16:45	Plenary Session—Marti Guixè, Interior and Industrial Designer, Barcelona, Spain and Berlin, Germany *"Ex-designer"*
16:45–17:15	Garden Conversation

Wednesday, 7 March

8:15–9:00	Conference Registration Desk Open
9:00–9:20	Daily Update
9:20–9:55	Plenary Session—Ariel Guersenzvaig, Senior Lecturer and Researcher, ELISAVA School of Design and Engineering, Barcelona, Spain *"Design Ethics: A Dual Challenge"*
9:55–10:25	Garden Conversation and Coffee Break
10:25–12:05	Parallel Sessions
12:05–13:05	Lunch
13:05–14:45	Parallel Sessions
14:45–15:00	Coffee Break
15:00–16:40	Parallel Sessions
16:40–17:10	Closing Session and Awards Ceremony

Special Events

Pre-Conference Tour: Barcelona Art & Design

Sunday, 4 March 2018 | 15:30 (3:30 PM) | Duration: 2.5–3 hours
Meeting Location: Hotel Omm, Carrer del Rosselló, 265, 08008, Barcelona, Spain

Join other conference delegates and plenary speakers the day before the conference for a walking tour of Barcelona's Eixample district.

The tour will study the ground-breaking urban plan of Idelfons Cerdá and some major works by Gaudí, who led the charge of the Modernista architecture movement that proliferates in the neighborhood. Take in a bird's eye view of the Eixample from the rooftop of the city's first "design hotel" and study how contemporary architects and interior designers have been inspired by the Modernista movement and adapted heritage-listed buildings for striking retail and hospitality projects. Visit the showrooms of several leading Catalan designers and learn how traditional brands have modernized and expanded into a global market via graphic design and communication. End the experience with a drink in a café, where the guide will take questions and recommend further places to visit during your stay.

Welcome Reception

Monday, 5 March 2018 | Directly following the last session of the day
Location: ELISAVA Barcelona School of Design and Engineering | Complimentary to all conference delegates

Common Ground Research Networks and the Design Principles & Practices Conference will be hosting a welcome reception at ELISAVA Barcelona School of Design and Engineering. The reception will be held directly following the last parallel session of the first day, 5 March 2018. Join other conference delegates and plenary speakers for drinks, light hor d'oeuvres, and a chance to converse.

Conference Dinner: El Nacional

Tuesday, 6 March 2018 | 19:30 (7:30 PM)
Location: Passeig de Gràcia, 24 Bis 08007, Barcelona, Spain

Join other conference delegates and the plenary speakers for a conference dinner at El Nacional.

El Nacional contains four culinary areas and four bars, each with its own personality and style contained within a quite extensive complex. However, there is a space that is not seen during a typical visit, reserved exclusively for groups, where the best of El Nacional's extensive culinary offer may be savored: El Magatzem.

The decoration of El Magatzem simulates what its name means in Catalan—a warehouse—with a wall of wooden crates, bottles, and other elements to be found in a place of this name. Your visit will begin with a welcome glass of Juvé Camps, Reserva de la Familia D.O. Cava, and a tour taking you to the very heart of El Nacional for an exclusive dining experience.

Begin your meal with a delicious array of starters, including fish and seafood salad, Russian salad, shredded cod with tomato and olive salad, land and sea-style squid, acorn-fed Iberian shoulder ham, and potato chips from Formentera. The main dish will be sea-bream beaked in Ibiza cooking salt. Pair your dinner with one of a number of drink options: Afortunado (Verdejo) D.O. Rueda, Lan D-12 (Tempranillo) D.O. Rioja, Estrella Damm (Mediterranean beer), soft drinks, mineral water, coffee, or tea. The dinner will conclude with a slice of cake for dessert. A vegetarian alternative is available.

Closing Session and Awards Ceremony

Wednesday, 7 March 2018 | 17:00–17:30 (5:00–5:30 PM)
Location: ELISAVA Barcelona School of Design and Engineering

Come join the plenary speakers, panel members, and your fellow delegates for the Twelfth International Conference on Design Principles & Practices' Closing Session and Awards Ceremony, where there will be special recognition given to those who have helped at the conference as well as announcements for next year's conference. The ceremony will be held at ELISAVA Barcelona School of Design and Engineering directly following the last session of the day.

Oscar Tomico

"Towards a Research Program in the Interdisciplinary Field of Soft Wearables and Smart Textiles"

Oscar Tomico is head of the Design Engineering bachelor's degree program at ELISAVA School of Design and Engineering and Assistant Professor of Industrial Design at Eindhoven University of Technology, working on soft interactions for the Wearable Senses Lab. Current projects focus on the textile industry and involve stakeholders during the design process to create ultra-personalized smart textile services in the form of soft wearables. He has been involved in research projects like ArcInTexETN (2015), CLICKNL Crafting Wearables (2013), and CRISP Smart Textile Services (2011). Dr. Tomico has been a guest researcher and lecturer at Textile and Design Lab AUT in New Zealand, TaiwanTech in Taiwan, Swedish School of Textiles in Sweden, IAAC in Spain, and Aalto in Finland. He co-organized events like the Waag Careful Designs and Hypercrafting Fashion events in Amsterdam; Baltan Open Lab: Wearable Senses workshops in Eindhoven; Crafting Wearables in Arnhem; and DHUB smart services, smart production, and smart textiles in Barcelona. He curated exhibitions like "Systems Design—Eindhoven School" (DHUB, Barcelona), and "Smart Textiles – Wearable Services" (TextielMuseum, Tilburg).

Albert Fuster

"The Making of Collaborative Cities"

Albert Fuster is an architect and has a PhD in the history of art and architecture from Escola Tècnica Superior d'Arquitectura de Barcelona (ETSAB-UPC). He has been Academic Director of ELISAVA Barcelona School of Design and Engineering since 2014, and he has lectured on the history of art, design and architecture, and project methodology in various schools. He is the author of the book *Macba: Richard Meier* (La Central, 2010) and has given conferences and published articles in national and international publications, with a particular focus on the relationship between literature and architecture, the subject to which he devoted his doctoral thesis. He has been editor of the *Revista DC* magazine at the ETSAB-UPC and the ELISAVA Temes de Disseny.

Ezio Manzini

"The Making of Collaborative Cities"

For more than two decades, Ezio Manzini has been working in the field of design for sustainability. Most recently, his interests have focused on social innovation—considered a major driver of sustainable changes. From this perspective, he started DESIS, an international network of schools of design specifically active in the field of design for social innovation and sustainability. Ezio is currently working at Desislab Elisava Barcelona, leading the flagship initiative "Design for City Making" within Desis Network. Presently, Ezio Manzini is Distinguished Professor on Design for Social Innovation at ELISAVA Barcelona School of Design and Engineering; Honorary Professor at the Polytechnic University of Milan, Italy; and Guest Professor at Jiangnan University, Wuxi, China. In addition to his continuous involvement in the arena of design for sustainability, he has explored and promoted design potentialities in different fields, including design of materials in the 1980s; strategic design in the 1990s (starting a master's degree in strategic design); and service design in the last ten years (starting the specific courses in service design). His most recent book is *Design, When Everybody Designs: An Introduction to Design for Social Innovation* (MIT Press, 2015).

Marti Guixè

"Ex-designer"

Martí Guixé was born in 1964 and was formed in Barcelona and Milan as an interior and industrial designer. In 1994, living in Berlin, he formulated a new way to understand the culture of products. Guixe started to exhibit his work in 1997; his work characterizes the search for new product systems, the introduction of design in food ambits, and presentation through performance. His non-conventional gaze provides brilliant and simple ideas of a curious seriousness. He is based in Barcelona and Berlin and works as a designer for international companies. Recent publications include *Marti Guixé 1:1*, (010 publishers Rotterdam, ISBN 90 6450 441 5), *Martí Guixé Cook Book*, (Imschoot Publishers, ISBN 9077362045), and *Don't Buy it if you Don't Need It: All Marti Guixe´s Camper Commodityscapes*. (ISBN 13 84 609 9135 0). He has exhibited his work at MoMA in New York, MuDAC in Lausanne, MACBA in Barcelona, and Centre Pompidou in Paris. He received the Ciutat de Barcelona Prize in 1999 and the National Design Prize of the Generalitat de Catalunya in 2007.

Ariel Guersenzvaig

"Design Ethics: A Dual Challenge"

Ariel Guersenzvaig is a senior lecturer and researcher at ELISAVA School of Design and Engineering in Barcelona, Spain. He teaches and writes about design theory and methodology, service design, and the ethics of design and technology. Guersenzvaig heads the MA programme in Research in Design and Communications—a joint programme from ELISAVA and Pompeu Fabra University—and an MA programme in user experience and design for digital transformation at ELISAVA. He also leads projects as an independent design consultant in the field of service design, innovation, and ethical digital transformation for both non-profits and for-profits organisations. Ariel Guersenzviag has a PhD in design theory from the University of Southampton (UK), a Diploma of Advanced Studies in Design Research from the Universitat de Barcelona (ES), and a degree in publishing from the Hogeschool van Amsterdam (NL). He is a proficient surfer and the father of three ferocious daughters.

Fay Al-Khalifa

Fay Al-Khalifa is a researcher with a PhD focused on the interrelationship between cultural change and urban sustainability, particularly in the context of the Arabian Gulf. Her research aspires to contribute to the understanding of sustainable urbanism within the context of transformed cultures, urban islands, and urban archipelagos. Dr. Al-Khalifa is also interested in the importance of sustainability in real estate as an asset class, the dynamics of considering sustainability assessment tools in real estate development, and the influence of visualization on the opinions and actions of decision makers. Dr. Al-Khalifa is now leading a $22,000 study that looks into visual discomfort and architecture.

Thomas Girard

No stranger to having his academic work recognized, Girard holds distinction as an RBC Emerging Scholar by the Royal Bank of Canada Foundation. While he currently teaches courses at his alma mater, he has taught undergraduate level interaction design in several countries, including Canada, India, and China. Thomas is a chairperson in the themed panel sessions at the International Conference on Design Principles + Practices.

Virozza Bianca Jasmine

Virozza Bianca Jasmine is a student of industrial engineering at the University of Indonesia and is also an active laboratory assistant at the Ergonomics Centre. She focuses on human factors on system user experience and interface design, methods and work environment analysis, and product development research. Virozza has completed several studies, including quality improvement of AH Restaurant using the six-sigma approach, system modelling using Discrete Event Simulation (DES) at a public hospital in Jakarta, and designing smart cars for nyctalopia (night-blind) people based on market research analysis on product development studies. She has worked at The Body Shop as a supply chain intern, where she used time and motion study (physical ergonomics) to measure employees' productivity.

Maxim Lamirande

Maxim Lamirande is a master's degree candidate in applied sciences in design and complexity, researcher for the award-winning GRAD research group, and teaching assistant at the Faculty of Environmental Design of the University of Montréal. His professional and academic practice have led his career in industrial design toward a specialization in mobility-assisting-devices; he has worked internationally with research and development groups on products such as artificially intelligent self-driving wheelchairs, exoskeletons, and mechanically powered knee-ankle-foot orthoses. Today, his experiences in the field have led him toward research on collaboration, focusing primarily on designer-scientist dynamics.

Aziz Maulana

Aziz Maulana is currently pursuing a bachelor's degree in industrial engineering at the University of Indonesia. Aziz is currently active as a senior staff member in the Science and Technology Department in the Student Executive Council Faculty of Engineering at the University of Indonesia and is also head of the Science and Technology Department in the Industrial Engineering Student Council at the University of Indonesia, where he provides scientific education material and addresses issues of technology. His research study was focused on design-thinking application in providing waste-management solutions in Indonesia and analyzing the systematical design approach. He is also an active member of IDEC (Industrial Design and Engineering Community) at the University of Indonesia, where he is working in the community to provide education about design, especially design thinking. His previous research and work provide and generate solutions using design-thinking methodology.

Victoria Meldrum

Victoria Meldrum is pursuing a master's degree in emerging media design and development through the Department of Journalism at Ball State University in Muncie, Indiana. The two-year program pairs a traditional graduate curriculum with an experiential lab in which students partner with real clients to solve problems in user-centered research, design, and testing. Meldrum's research interests lie in community and placemaking efforts, user-centered design, and creative applications of the design thinking process. She earned a bachelor's degree in journalism graphics from Ball State University and has a decade of professional experience in graphic design and data visualization. She is currently the manager of publications and web services at Ball State's Center for Business and Economic Research.

Erfandy Muhammad

Erfandy Muhammad is a student of industrial engineering at the University of Indonesia and is also an active systems engineer and a modelling and simulation laboratory assistant. He focuses on system-applied analysis, serious simulation games, and research analysis. Erfandy has completed several studies, including discrete event simulation (DES) of a public hospital in Jakarta, six sigma application on inventory disposal at a local fried chicken franchise, and market analysis of a smart car for nyctalopia (night-blind) people on a product development study. He has worked at e-commerce O2O tech company as a project manager intern, where he used SCRUM framework. Recently, he worked at an international bank as a strategic planning intern and analyzed the opportunities of digital banking partnerships using application programming interface (API). He is interested in marketing technology along with the art of system thinking.

Jinoh Park

Jinoh Park is a PhD student in design at North Carolina State University and works with Dr. Traci Rose Rider. He explores the quality of design in terms of health and well-being by incorporating economic feasibility and occupant satisfaction in the built environment. His background is in interior design and business administration, with more than ten years of practical experience. His research aims to not only manage the risk of real estate development for the entrepreneur, but also lift the bottom line of indoor environmental qualities by enhancing the architecture regulations and guidelines for the public.

Rachel Pool

Rachel graduated from Northern Arizona University with a bachelor of science degree in interior design, a bachelor of arts degree in art history, and minors in art and cultural management and museum studies. Rachel currently works as an associate curator in Arizona at Western Spirit: Scottsdale's Museum of the West, where she has had the opportunity to work on more than fifteen exhibitions. In August 2018, she will begin her master's degree in the history of architecture and interior design. Rachel plans to continue researching American architecture, interior design, and the decorative arts throughout the nineteenth and twentieth centuries, with specific focuses on the Arts and Crafts movement, Art Nouveau, and Art Deco.

Farzad Zamani

Farzad Zamani is a doctoral candidate in urban design at the University of Auckland. Born and raised in Isfahan, Iran, he continued his education in architecture in Nottingham and then moved to Aotearoa-New Zealand to complete his PhD. His thesis investigates the notions of public space and digitally infused urban movements within the context of cosmopolitan cities of the Middle East. In addition, his thesis provides an analysis of the Gezi Park Movement and its impact on the multi-scalar urban transformation of Istanbul. His research depicts the vitality of place-based urban knowledge to understand the complex and multifaceted urban fabric of the Middle Eastern cities.

Monday, 5 March

08:00-09:00	**Conference Registration Desk Opens**
09:00-09:30	**Conference Opening—Phillip Kalantzis-Cope, Chief Social Scientist, Common Ground Research Networks, Champaign, Illinois, USA**
09:30-10:00	**Welcome Address—Arianna Mazzeo, Director, Masterlab in Service Design Systems, Desislab Elisava Leader, Barcelona, Spain; Loredana Di Lucchio, Architect, Researcher, Professor, Sapienza University of Rome, Rome, Italy**
10:00-10:35	**Plenary Session—Oscar Tomico, Program Head, Design Engineering Bachelor's Degree Program, ELISAVA School of Design and Engineering, Barcelona, Spain, Assistant Professor, Industrial Design, Eindhoven University of Technology, Eindhoven, Netherlands**
	"Towards a Research Program in the Interdisciplinary Field of Soft Wearables and Smart Textiles"
10:35-11:05	**Garden Conversation and Coffee Break**
11:05-11:50	**Talking Circles**
	Plenary Room - Design Education **Room 1 - Design in Society** **Room 2 - Designed Objects** **Room 3 - Visual Design** **Room 4 - Design Management and Professional Practice** **Room 5 - Architectonic, Spatial, and Environmental Design** **Room 6 - 2018 Special Focus: No Boundaries Design** **Room 9 - Spanish Language**
11:50-12:50	**Lunch**
12:50-14:30	**PARALLEL SESSIONS**

Room 1	**Future of Design Education** **Teaching as a Design Profession in a Digitized Society** Dennis Augustsson, University West, Sweden In the face of current digitalization of both school and society, a great deal of effort is put on increasing digital competences among both students and teachers. Large investments have been made and research conducted on the use of Information and Communication Technologies (ICT) in a school context. This paper argues for the notion of these technologies as mediums, not tools, and that a design approach to constructing new teaching models with focus on the communicative and narrative aspects of ICT is a rewarding way for professional development for teachers to create innovative usage of new technology in a school context. The paper reports on a participatory design project, conducted with K12 schools in USA and Sweden to create an international collaboration on ocean literacy, using video production to produce and communicate knowledge. The development of new teaching models took place in an iterative design process where researcher, teachers, and students collaborated to plan, implement, and evaluate video production as learning designs. Informed by sociocultural perspective on learning, findings suggests that design theory and design practice has the potential to be the most important competence for teachers in a world where digitalization is changing the profession in fundamental ways. *Design Education* **Changing the Course of Design History** Helen Turner Patrick Lee Lucas, University of Kentucky, USA Born from faculty frustration with inefficiency and waning student interest in the dynamic, sensory-laden, and fascinating history and theory of design, two historians conceived an alternative approach. Beginning with the premise that students graduate to practice, we decided the revised courses should be less concerned with date memorization associated with chronological delivery. Instead, the thematic structure provided a forum for conversation and analysis where students study design in both historical and modern contexts using everyday buildings as well as the architectural canon. Such an approach liberated teaching and learning to recognize and value varying learning styles and multi-modal ways of doing. It allowed for a hybrid delivery of instruction, partially online content balanced with in-person field experiences. Required for majors in their first year of the program and for non-majors seeking general education core marker credit, the ten topics (principles and elements, scale, materials, light and color, technology, experience, finishes, furnishings, representation, and theories) provided an alternative way to view and understand design in the world. Because the topical units are also chronological, material that could span several months in traditional lectures occurs consecutively, allowing for insights through comparison and contrast, leading to deeper learning through repetitive and scaffolded engagement. *Design Education*

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Monday, 5 March	
12:50-14:30	**PARALLEL SESSIONS**
	Reframing the Situation: Thinking beyond Inclusive Design Gideon Dotan, Hadassah Academic College Jerusalem, Israel Jonathan Ventura Situation design is our suggestion for invigorating inclusive design. Following the paid attention to marginalized communities we call into consideration various layers of the socio-cultural surroundings of the design process. Socio-cultural changes throughout the globe have called the term "marginal" into consideration. Should we give special attention only to medical patients or design for people in several other situations/ conditions, such as immigrants as well? Furthermore, while designers and indeed the industry have started to work in tandem following the principles of inclusive design, a reframing of the term is needed. In this paper we introduce an alternative concept to continue the legacy of inclusive design, one that is more suited for the challenges we face in the coming years. Our approach, termed "situation design," focusing on various layers of design partners as well as the socio-cultural surroundings, has been established and honed during the last few years in an academic course called DSL (Design Saves Lives) lead by Gideon Dotan. In this course, a methodology to tackle said projects is executed, issues/problems are defined, users, groups, etc. are contacted and collaborated into the design process. The culmination of these efforts leads to a characterization of the design situation in order to further develop the relevant solution. Therefore, by defining the broader term of "design situation" we incorporate the various design ideologies, setting a target to socio-political design both in pedagogy, as well as in practice. *Design in Society* **Instructional Models for Learning Effectiveness and Efficiency** Sooyun Im, California State Polytechnic University, USA This study will compare three instructional formats for teaching effectiveness and efficiency: printed instructions, time-based video instructions, and interactive apps. In order to make this comparison we will determine the effectiveness and efficiency of each instructional model in teaching a simple visual handcraft activity, and then we will compare the results. The challenge of learning handicrafts is comprised of comprehending the instructions and attaining the difficulty level and the time required to complete the learning task. Three different groups of users will test each instructional model, and the results will be compared for efficiency and learning effectiveness. Allowing for individual differences in visual perception and cognition our research hypothesizes that beginners would be more satisfied with an interactive app or time-based video instruction for the initial learning experience. However, the hypothesis also suggests that more people would prefer printed instructions to quickly review specific steps in the procedure. The hypothesis, then, is that time-based video would be more effective for learning acquisition, but perhaps not as efficient for simple review. Thus, this research investigates both the learning effectiveness and the efficiency of each instructional model. The research will assess user success, behaviors, and experiences in response to the different delivery methods. Data from three groups will be measured and evaluated based on time required to complete the task, number of errors in interaction with the learning materials, comprehension of the target content, and learning retention. We will also gather user experience data by observation, exit surveys, and interviews to compare the three learning models at the experiential level. The findings will indicate the learning effectiveness and efficiency of the three test models. Based on the findings, we will develop a new teaching model designed to provide a more user-friendly instructional method in which users can control and manage their own learning. *Design Education*
Room 2	**Collaboration and Design Education** **Future of Making: Collaborative Spaces of Production** Tal de Lange, Studio de Lange, Israel The growth of sharing economy formats brings above-the-surface questions about the role of designers as partners and entrepreneurs who are committed to re-thinking innovatively the issues of bottom-up initiatives, in responding to political, socials and economic changes. As their final year project, my students were asked, apart from using Graeme Brooker's strategies of intervention, insertion, and installation, to add a new layer called the sharing economy. Panarama building in Tel Aviv, is an industrial complex that contains 800 workshops, commercial spaces, studios, parking, a car ramp, and unused public spaces. The complex became the platform to examine the possibility for a collaborative production community that uses the site in a more efficient way, inventing new ventures and developing dynamic spaces and urban activities. Based on their research the students suggested projects that turn the place into a sharing economy community, by using the shared resources/landing/producing products and services that rely on a self-managing community, in which the work is coordinated for the benefit of a collaborative result inside the community and the surrounding neighborhoods. This, while using traditional technologies combined with up-to-date platforms and network utilization in order to bring new social and economic value to the complex and the city. The studio was a laboratory in which lessons were held in sharing economy locations as We Work, the students met entrepreneurs of "online platforms," pitched ideas, and participated in online collaborative platforms. *Design Education, Design in Society, Design Management and Professional Practice*

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Monday, 5 March

Design Teaching beyond Boundaries: Lessons Learned from a Collaborative Design Studio
Harsha Munasinghe, George Brown College, Canada
Studio is the most tested device used to teach design. Being intertwined with embedded epistemology and social relationships, today's design studio is plagued with power structures dominated by a mentor. The passing of a teacher's knowledge to students has converted design teaching into a guild-training. This plummeting pedagogical tool disengages students in the learning process. If the design studio were to be a setting for learning, it should encourage the collaboration of teachers and students. We facilitated collaborative design studios at KD University in Sri Lanka, with aims to test the strength of collaboration. This paper describes lessons learned from those studios, where the process of learning was stressed over teaching to produce an end-product. Our studio, with a broadly defined design-brief, mixed students of various levels with teachers. Emphasizing the strength of setting as the point of departure for design, we observed how students and teacher collaborated in design conceptualization and realization. The openness promoted exchange of ideas as there were no hidden dynamics or iron-clad design briefs. Students and teachers confessed to their engagement and learning.
Design Education

Room 3 | **No Boundaries Design: Rethinking Limitation**

Speculative and Provocative Thoughts on Design's Role in the Present for the Future: An Esoteric and Emotional Review on the Fundamentals and Values of Design and How to Work with Them for the Future
Maria Paula Baron Aristizabal, University of the Andes, Colombia
The role of the designer has changed at present, by the very nature of the design process. Designers migrate from the author to the facilitator, as the have become the providers of tools and dynamics that detonate innovation, creation, or change. User-centred design starts from people, and from the deep understanding of them, to comprehend the particularity of their actions, their motivations, or their intentions to find a way to attach value to their lives through specific interventions. But humans have been too costly to us. So these days I found the perfect timing for design beyond humans. You've been so useful, Human-Centred design, but your time has come to an end, we have to design using you but going further than that. We have to stop placing us at the centre of this enormous landscape, where we actually are just a wee bit. The present times are marked by information technologies, artificial intelligence, augmented reality, and so on. Making the design scenario every day more complex and feeding the natural ambiguity of the process. Now it is so common to hear about design thinking and how it can thrive corporations, and designing intangibles to accompany products. But I keep thinking, what will the future be? What should we be designing? That was the question that detonated my actual inquiries as a designer, a teacher, and an inhabitant of planet earth. After so much thinking and self-analysing, I realized I was motivated to design for connectedness, for empathy. I started asking myself about the role of design in this immateriality. So in order to that I start my research asking myself: Can we create interactions between unknown people? Can we facilitate scenarios for sharing experiences? Can we help people to understand other species? Can we contribute to increase tolerance over the differences? And over biological/physiological differences? How can we use all these amazing technologies for connecting emotions? Can we design for an ecosystem in the more complete sense of that word? Can we use design to build pro-social attitudes? Can we explore through design different ways of conviviality with others besides humans? Can we help humans understand they are just one more species in the universe?
2018 Special Focus: No Boundaries Design

Myths, Metaphors, and the Master Narratives of Instructional Design: Culture and Counterstories
Kathryn Campbell, University of Alberta Faculty of Extension, Canada
Diane Janes, University of Alberta Faculty of Extension, Canada
A master narrative is a collection of stories of shared social understanding of a culture, in this case, design culture. Master narratives are told by the agreed-upon Knowledge Keepers of a culture, conveying messages of moral authority that, in their telling and remembering, help us make sense of our cultural experiences. Individual or community selection and interpretation of stories over time grows the connective tissue of social identity, the shared moral spaces represented by master narratives. Metaphors help us structure a problem situation from a novel perspective, an important feature for creative activities like design. As design expertise develops, designers embrace a collection of ethics, ideals, values, and intentions that endow their knowledge structures with references to direct their design processes. Using metaphors to help solve problems may allow designers to explore innovative ideas and reframe design problems. Metaphors can also play an important role as pedagogical tools in design education, encouraging problem-solving, construction of a personal view about a design situation, and a creative solution. However, the way design metaphors and narratives are constructed may lead to cultural hegemony (e.g. design as a systematic, objective process), or dominant cultural myths that guide design practice and disengage designers as agents of social change. We are deeply interested in the stories that resist these cultural myths, or the counterstories, of instructional designers in higher education settings that are embedded in their narratives of practice and revealed in the conceptual metaphors they share. In this paper we will share a very small subset set of those conceptual metaphors, mined from the transcripts of hundreds of hours of narrative inquiry, the writings of other designers and scholars, and recent conference proceedings, i.e. the emerging texts of instructional design.
Design in Society

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Monday, 5 March	
12:50-14:30	**PARALLEL SESSIONS**

Blue Sky Theory: Reimagining Aesthetics in the Everyday
April Munson, Kennesaw State University, USA
Researchers and theorists have suggested that "blue sky theories" are of the past; this couldn't be more inaccurate. The world of education, design, and the everyday is poised to understand a greater purpose; a mission and value coupled with the critical necessity of intentional, responsive, transformative design. In order to embrace this new intention, blue sky theories are essential. Curiosity driven research in order to be part of this living field allows thinking to expand and understanding to grow. The intentionality of design has assimilated into an aim beyond that of developing functionality, the aesthetic object, and the designed world. The new intentionality is responsible not only for the aesthetic of the original intent, but the aesthetic of the life in which it exists. This responsibility extends beyond principles and elements and fundamentals that are taught in institutions around the world. As creators we now assume a scope beyond what we have previously imagined--demonstrating the need for the return of blue sky theories. This paper explores avenues of embracing and growing with a new intention.

2018 Special Focus: No Boundaries Design

"In Search of" Design without Designers: African American Womanism and "Everyday" Designs
Lauren Cross, University of North Texas, USA
In 1983, writer Alice Walker wrote her groundbreaking text "In Search of Our Mother's Gardens: Womanist Prose," and coined the term womanism to describe the "everyday" creative practices of women of color. Walker's womanists use daily creative tasks to increase the sustainability and vitality of their communities. In this way, womanism within Walker's terms becomes a social justice perspective that allows women of color to develop and execute innovative grassroots strategies and solutions. While Walker's writings represent womanists as African American women engaging in ordinary activities like gardening, cooking, and quilting, this paper will expand womanist thought to include the creations of amateur, everyday designs. The researcher will collect amateur design samples by everyday African American women and qualitative interviews to evaluate the ways in which communities of color incorporate design without designers. Using critical analysis, this paper will investigate the ways in which amateur designs by African American women for churches, families, and community events are not only articles of womanist praxis but describe the reasons why some communities prioritize personal relationships over mainstream design trends.

Design in Society

Room 4	**Product Design: Solution and Inspiration**

Wearable Fashion for the Millennium Generation: Fashion and Technology
Rafael Azuaje, University of the Incarnate Word, USA
Traditionally, fashion has been a manifestation of one's personality. It conveys a sense of style and also protects the body against the elements of the weather. However, technology has not been an integral part of fashion, the two of them have evolved in a parallel format. Wearable Fashion Technology (WFT) should be functional, practical, and reflect the desired sense of personality of the person wearing such item (cutecircuit.com, 2017). New current technological trends such as Fiber Super-capacitors and Photo-anode are opening the possibility of having fabric that is able to work as solar cells, that is to convert light into electricity (Best, 2016). Also, advances in solar cell technologies (Wikipedia, 2016) (flexible solar cells) and electronic circuitry (System-On-A-Chip and peripheral devices) makes it possible to incorporate technology into fashion to serve a given purpose beside fashion itself. This research brings awareness to the combination of fashion and technology to help people to be more functional and productive by converting a free source of energy (solar energy) into electricity to power low-power electronic devices such as phones, tablets, and others.

Designed Objects

High Heels in Asia, Europe, and Africa
Huaixiang Tan, University of Central Florida, USA
Kim Joo, University of Central Florida, USA
High heels have been worn for centuries throughout the world. People wore high heels for many reasons ranging from practical reasons to fashion or aesthetic desires to theatrical intention. According to BBC, high heels were originally worn by men. As early as the tenth century, many horseback-riding cultures wore heels on their boots and on their shoes, because heels help to stay in the stirrups. Shawcross explained how high heels became an icon of feminine sexuality. Many previous studies have been done on the history of shoes from ancient times to the present with stunning visual and historical references of shoes. However, this study will focus on the comparison of high heels before the nineteenth century in Asia, Europe, and Africa. The research will examine high heels from European chopines to Chinese little lotus; from Indian metal/bronze Padukas sandals to those Egyptian shoes, made from flexible leather pieces held together with lacing. Greek and Chinese opera male performers wore high-soled shoes/boots on stage to make them look taller or larger than life. The High-heels legends reveal their wearers. It is said in the article "Ancient Origins," "that the higher the chopines, the higher the status of the wearer."

Designed Objects

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Monday, 5 March	
12:50-14:30	**PARALLEL SESSIONS**
	Cultural Assimilation and Acculturation in the Context of Emerging No Boundaries Apparel Design Damayanthie Eluwawalage, Albright College, USA In an assimilation process an artifact, item, or idea external to a culture is adopted and changed and with this change, and over time, the artifact/item becomes a significant part of the adopting culture's dress and appearance. It is a concept that has been found useful in interpreting the cultural diffusion of costume between western and non-western cultures. There are a few significant examples of cross-cultural influences on Western fashionable dress prior to the twentieth century. Those cultural influences which did impact Western fashion were primarily in the form of textiles, such as cotton from India, silk from China, and shawls from Kashmir. In the context of textiles and clothing, including raw material versus production and consumption, the discovery and importation of silk textiles changed the way Western/European aristocracy of the middle ages (and beyond) dressed as well as their decoration, as did chintz from India at a later date. The transnational links that facilitated these imports, even before the concept of nations, crossed not just geographical borders but also religious and social ones. It was the beginning of capitalism and globalization, only with different mechanics and mediums. This paper identifies and analyses the selection, characterization, incorporation, and transformation of the concept of "acculturation" and "assimilation" in the current emerging global apparel/fashion markets context. Cross-cultural and multidisciplinary in approach, the paper explores socio-cultural aspects of dress across cultures and societies. It allows us to account for mixtures that occur due to global interactions of people with long-established traditions and customs. *2018 Special Focus: No Boundaries Design* **How to Improve the Level of Security of High-risk Buildings through a Protective Design** Shabbab Alhammadi, Shaqra University, Saudi Arabia Protective design of buildings can be achieved by integrating various means of mitigating threats and force protection from blast, fire, disaster, ballistic attack, and illegal entry into architectural and engineering design criteria. Saudi Arabia is part of the world and is suffering from continuous threats and achieving a huge success in preventing or mitigating extensive damage resulted from these threats. This paper investigates the current situation of high risk buildings and how these buildings follow the criteria of protective design. The adopted methodology is based on observation as well as questionnaire survey to achieve the objectives of research. The outcome of research revealed that there is a need to update or redesign some existing buildings to comply with the new threats. Protective design offers an improvement and protection for the security and safety of building mission and life safety services and thus the safety of building occupants as well as introducing post-protective design in order to improve the current status of existing buildings. This paper contributes to the discussion around the integration of design stage with construction buildings procedures and operation. It provides a detailed guidance for practicing the protective design for security and safety of high risk buildings either existing or future buildings. *Design Management and Professional Practice*
Room 5	**Human-centered Design Approaches** **Perception and Wayfinding at Cultural Sites** Nieves Fernández Villalobos , Spain Marina Puyuelo Cazorla, Spain Projects in historical and cultural heritage have gained great relevance in recent years. The importance of these places lies in their own value and ability to motivate and disseminate knowledge to all, regardless of their abilities. The design of information plays an important role in achieving this goal of making cultural heritage accessible. But the achievement of accessibility for all in these projects is not easy. It requires a sensitive perception of the persons in their various situations and an exercise of restraint to balance present and past, memory and invention. It is not possible to develop a single objective and universally valid theory. Each case must be studied in-depth to provide sensible, useful, reasonable, and respectful solutions. This paper will study some signage and information projects in patrimonial and cultural landscapes that use different sensitive-sensory channels to make the place more accessible. The diversity of visual, tactile, and sound elements, static and dynamic, discrete and striking coexist to point out and highlight the different spaces. This diversity of stimuli can constitute an efficient and dense net of tools, signals, and symbols superimposed uninterruptedly, that provide voice to a place and make it more inclusive. *Design in Society*

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Monday, 5 March	
12:50-14:30	**PARALLEL SESSIONS**

Room 6	**New Processes for Designing Spaces**

Resilient Housing Design to Affordable Cost: The Field of Dreams Eco-community in Kearns, Utah
Joerg Ruegemer, University of Utah, USA
The Field of Dreams Eco-Community [FoD] is conceived as a collaborative effort to re-imagine the affordable housing typology in the Southwestern States of the US. FoD consists of twenty, 1,500 SF units in ten twin-home buildings, newly constructed on an abandoned baseball field in close proximity to Salt Lake City, Utah. As part of the development process, underlying principles of how we live and the types of spaces we need to accommodate these desires were re-examined, challenging the contemporary notion that quantity of space supersedes quality of space and design clarity, with the goal to provide high quality of living within an optimized, moderate footprint that is sensitive to both the inhabitants and the local environment. To achieve these goals, FoD is the synthesis of both modern technology and vernacular principles - unlike traditional modern buildings, FoD utilizes what is immediately available onsite as the primary energy source in form of passive winter solar heat gain; it supplements only what cannot be generated onsite to meet modern standards of comfort through technological means. To become net-zero, the remaining energy requirements can be offset through an optional PV solar system. Traditional ideas of orientation, passive energy design, thermal massing, and aspects of daylighting are key elements in the outward expression of the building's massing. This strategy creates an energy-efficient building with a high resilience factor, thus making the survival in extreme conditions possible without external energy sources - all without increased capital investment. This is also reflected through the idea of supporting a family with its own food supply by offering produce production onsite. Designed as close to Passive House standard as budget allows, each unit will consume about 70% less energy then a typical code standard building in the same location, which culminates in anticipated energy cost of less than $1.50 per day. Overall costs per unit are at $150,000. This is achieved through a highly insulated and airtight enclosure made of panelized Structurally Insulated Panels (SIPs). SIPs are not a mainstream construction system in residential building, thus FoD will also be considered as a case study and research project for such construction methodology. Being part of the author's/architects university research, the project's performance will be Post-Occupancy monitored over twenty-four months.
Designed Objects

Interaction between Soil Morphology and Technological Landscape of Ave Valley
André Chaves, SAPO, University of Aveiro, Portugal
This paper focuses on a case study delimited by a territorial area of Portugal, simultaneously of great historical patrimony value and of contemporary urban dispersion, belonging to the Ave Valley. This area is conceptualized, visually, as being a Portuguese technological landscape sample of rural, industrial, and computational components, largely parallel to other important ones such as the Douro Valley. The intention is the topological confrontation of the actual technological landscape, from its logics of soil use and occupation, with an orographic and topographic local structuring (soil morphology) as the local natural origin still identified at present. The methodology is the open and sensorial rationalism, influenced by the hegemonic cultural domain of the United States since the end of World War II, also called postmodern. The contribution to be reached is a nihilistic research on the topology of local artificial use and occupation settlements, analyzed from the technological landscape and supported with the concept of soil morphology as an innovation to the canonical studies structured by the road network of the Ave Valley. The temporal context of research is limited to the present. In short, this research is a postmodern reading of the technological landscape of the Ave Valley supported and structured by its natural original topographic condition.
Architectonic, Spatial, and Environmental Design

Eolic Water Desalination
Javier Arjona, University of the Incarnate Word, USA
One of the major water issues in developing countries is that most of the rural population does not have access to potable water. Thousands of communities by the coast only have brine water coming out of their deep wells and a greater number of inland communities still have their water sources contaminated with arsenic, fluorides, or coliform bacteria among other contaminants. We developed a system that consists of an American farm type windmill to power a water pump combined with a hydro-pneumatic tank. When the water reaches the required pressure, it is then filtered using a Reverse Osmosis (RO) set of membranes. This system has been working for several years in rural communities in north and central Mexico. This work is the design of a more advanced system replacing the farm type windmill with a three-bladed electric production type windmill, a new mechanical transmission, and a high-pressure water pump. The pilot model will clean the rainwater collected by the water recovery system of the University of the Incarnate Word (UIW) Solar House.
Architectonic, Spatial, and Environmental Design

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Monday, 5 March	
12:50-14:30	**PARALLEL SESSIONS**
Room 7	**Sustaining Heritage and Development** **Redefining the Forms of Islamic Objects and Spaces** Nehal Almurbati, University of Bahrain, Bahrain Tamadher Alfahal, University of Bahrain, Bahrain Faith and creative practice in traditional Islam had a profound rapport that is lost today. Art, in its various forms, was born as an instrumental need for Muslims to express religious worship and spiritual contemplation. Hence, what is seen in the traditional Islamic creative practice is not merely aesthetics, but profound dimensions of mathematics and metaphysics layered within decorative arts, designed objects, and spatial forms. Today, the Islamic creative directions are torn between two ends of a spectrum, including traditionalists who are too attached to historical means and modernists who are keen to embrace modern approach apart from spiritual dimensions. This research promotes a new way of approaching designed objects through an abstract knowledge of divine principles that underpin traditional aesthetics. Moreover, it summarizes a set of principles and examines their validity to generate an alternative creative expression of the Islamic religion. These principles are unity, remembrance, modesty, absence, balance, rhythm, and intimacy. In an attempt to adapt similar approaches to design foundations, yet maintain the religious reference as philosophical basis, the principles were introduced to twenty-eight interior design students of an Islamic cultural background. The interpretations were then reflected on micro and macro scales. The first is the application in the design of a jewelry piece, and the other through the design of an interior space. The outcomes showcased the possibility of a new image of Islamic designs that challenges the clichй impression of the traditional form, without divorcing it from the profound principles of faith. *Designed Objects* **Re-voicing Bawan Buti Saree: Languishing Design** Satyendra Kumar Mishra Shatarupa Thakurta Roy Satyaki Roy, Indian Institute of Technology Kanpur, India This research conceptualizes a sustainable framework design for the revival of the handloom saree "Bawan Buti" of Bihar, India, using qualitative and quantitative insights concerning the handloom industry. This research develops a self sustainable conceptual framework design using secondary data analysis of Indian handloom clusters and using models of how competitive forces shape any strategy, by Michael E. Porter, reported in "Harvard Business Review" in 1979. The findings illustrate an unambiguous conceptual framework design for the revival of the languishing handloom industry of Bihar, in the context of the Bawan Buti, which could be seen as an embeddedness of social and cultural capital of the region. It also proposes an approach for implementation of the framework design. The paper is likely to develop a framework design which shall be helpful to revive the languishing craft cluster of the Bawan Buti saree, which was once the pride of the place. The research shall also analyze the root cause of the issue and propose major competitive forces for the design revival strategy framework. *Designed Objects*
Room 9	**Spanish Session**
14:30-14:45	**Coffee Break**
14:45-16:25	**PARALLEL SESSIONS**
Room 1	**Architecture Education and Design** **Type in Architecture: Technology beyond the Tool** Fabian Neuhaus, University College London, UK Buildings are based on technology. This includes both the product and the process, the making of. From material to construction, even to constructing as a practice, it is founded in technology. This applies also to the design process. It too is based on technology. Not surprising given all the tools. In this paper we will argue that even architecture as an artistic composition itself employs technology. It uses it in the form of type. We explore what it means if type in architecture is technology. The debate around the architectural type is very old and resurfaces in waves. From Quatremиre de Quincy and Duran to Rossi, Argan, and Moneo and more recently Vidler, Jacoby, Lee, and Steadman, there are different revisits of the same theme. Are there underlying principles and similarities between different buildings? Just like there are sorting principles in biology? Of course architecture is not biology and has very little to do with nature as it is a human-made artefact. But we use technology to renew the argument that there is an underlying ordering aspect and propose an attempt to explain why this must be the case based on the practice and disciplinary knowledge. *Architectonic, Spatial, and Environmental Design*

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| 14:45-16:25 | **PARALLEL SESSIONS** |

Different Expectations of Livable Space between the Public, the Practitioner, and the Researcher: Evaluation Criteria for Living Spaces in Architectural Design

Jinoh Park, North Carolina State University, USA
Traci Rider, North Carolina State University, USA

Even though people generally trust well-known and award-winning architects to design well, many objectional houses contrast with general public opinion. This study establishes qualities of a good living space, aids people in awareness of the concept of livable spaces, and improves the direction of architecture education curriculum. This sequential mixed methods study explores the criteria of housing architecture design awards and the criteria of Indoor Environmental Quality in occupant satisfaction research. Then, based on these findings, the second phase is to propose the difference between those two sets of criteria in both the practical and academic perspectives on the living place and survey people as to their preference with this developed set of criteria. Lastly, the third phase is to compare the surveyed architectural students' understanding of the living space with the findings above; the perception of the public, the practitioner, and the researcher. The results will clarify the different perceptions of livable space between the practitioner and the researcher, identify considerations for the selection of future living places, and provide evidence-based guidance for on how to design a better living place for people.

Design Education, Design in Society, Architectonic, Spatial, and Environmental Design

Describing Liminal Knowledge in Architectural Design: Knowing What We Do Without Knowing Everything

Otto Paans, Technical University of Berlin, Germany
Ralf Pasel

This paper investigates so-called liminal knowledge, the epistemological twilight zone between knowing and not-knowing that has been insufficiently described, safe by a recourse to tacit knowledge. The double hypothesis of this paper is that liminal knowledge explains how architectural designers address complex problems in ways that are reliable, and that liminal knowledge is an underdeveloped concept in need of further explication. This account updates the currently used notion of tacit knowledge, replacing it with more recent and detailed scholarly work in philosophy of science, neuroscience, and design theory. It explains how design techniques described in literature are best viewed as utilizing liminal (instead of tacit) knowledge. Furthermore, the notion of liminal knowledge is in literature only described only in outline. Therefore, this paper describes and expounds on it in more detail, providing a theoretical picture that is more accurate to current design theory. This updated account introduces a well-developed concept of liminal knowledge in the debate, shifting the focus from implicit, non-conscious knowledge to knowledge that functions in design situations where time and knowledge are limited. Therefore, this paper updates one of the core concepts of design theory.

Design Education, Architectonic, Spatial, and Environmental Design

Effect of Using Re-representation on the Creativity of Architecture Students

Mahmoud Reza Saghafi, Art University of Isfahan, Iran
Mohammad Ali Ashraf Ganjouei

Designers think visually and use structure of visual representations in order to have more creative design ideas. Since students focus mostly on the surface of images, re-representing may lead them to the structure of visuals by providing abstract images. This research studies the effect of re-representation on the creativity of architecture students. In an empirical study, two groups of undergraduate students inspired by an architectural image to provide representations that can be applied as design solutions. In experiment group, subjects are induced to generate series of abstract representations which may help them to focus on structures of the image. In the control group, subjects used the same image without any instruction. In order to measure the creativity, the first three judges will rate the originality and practicality of students' representations, then quantitative analysis will carry out to identify the effect of re-representation on the creativity of design ideas. The results of this research will be helpful in different ways: in the field of design education, teachers can improve students' creativity by using re-representation. Also researchers may focus on the effect of different variables of this method on students' creativity.

Design Education

| Room 2 | **Product Development and Process** |

Contention and Sensory Stimulation System for Premature Babies through a Design Methodology Based on a Multidisciplinary Team Method

Anna del Corral, ELISAVA Barcelona School of Design and Engineering, Spain
Marta Gonzalez, ELISAVA Barcelona School of Design and Engineering, Spain
Miguel García
Eva Diaz

The neonatal intensive care units (NICUs) for premature babies center their efforts on the development of these preemies, controlling external and internal stimuli that are stressful for these babies. Preemies are susceptible to suffer from stress that can alter their sleep cycle, their neurodevelopment and, in the worst situations, cause strokes. Nowadays, NICU nurses make contention "nests" inside the incubators with towels, in order to give preemies a controlled environment closer to the mother's womb, but that do not fulfill their physical and emotional needs. This paper introduces the design methodology followed to develop a contention and sensory stimulation system for premature babies. This methodology is based on a multidisciplinary team integrated by professionals from the Hospital de Sant Joan de Dŭu NICU, an industrial design engineering student, and professors from the Department of Materials and the Design and Product Development Department of ELISAVA, Barcelona School of Design and Engineering. This methodology allowed the obtention of a solution that helps correcting position of the premature baby optimizing the NICU's professionals work, and through its ergonomic and sensoriality, maintains and increases the mother-newborn bond by imitating the mother´s breathing. The objective is to permit preemies to leave NICU earlier, with the correct physical and emotional development.

Designed Objects

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14:45-16:25	**PARALLEL SESSIONS**

Critical Appliance: Extending Product Lifespan through Critical Product Design

Gordon Young, Sheffield Hallam University, UK

It is clear that there are many facets of contemporary society that need to take some responsibility for the changes necessary to mitigate the accumulative and on-going damage suffered by the environment. From individual consumers, through to government and global organizations, there are actions that can be taken to promote positive alternatives to our current model of a throwaway society. This paper describes a critical product design for a common domestic appliance that embodies design strategies to promote product lifetime extension as a way to reduce the environmental impact of mainstream consumerism. With a focus on maintenance, repair, and upgradability, these products sit outside of the constraints of commercial viability and instead offer genuine solutions that can contribute to the future design of more sustainable products. Drawing on a body of work and a range of research methods that include consumer interviews, surveys that aim to understand public attitudes to maintenance/repair, and interviews with manufactures, this project demonstrates ways in which designers and manufacturers can develop products which encourage longer term ownership. Extending the lifespan of products implies that the very physical presence of the object will need to endure over a longer period, transgressing fashion and trends. This work examines consumers motivations to keep products for longer employing materials and manufacturing processes with inherent qualities known to build greater attachment between the user and objects. These critical design proposals demonstrate that common consumer products can be designed to last a lifetime and beyond, promoting new modes of ownership and more sustainable consumption.

Designed Objects

Human-centered Design and Neurosciences: A Case Study from an Interdisciplinary Research Group

Alessio Paoletti, Sapienza University of Rome, Italy

The best practices in design have shown that technology-focused approaches produce designs that easily get old. Contrariwise, a user-centered approach produces designs that can last longer on the market. So, for designers it is fundamental to understand how to design more and more attractive products that are not only related to the technical requirements, but also to the human factor, to the emotional requirements. According to marketing research, about 80% of the products is withdrawn from the market due to lack of sales. Furthermore, an additional 10% is withdrawn within five years. Clearly, it's crucial to provide tools to predict the reception of a product on the market, which also takes emotional requirements into account. Designers can have advanced tools to better understand the customer in the very early stage of the product development process, thanks to neurosciences. Neurosciences are giving a surplus of information about how we relate to emotions. They can be a field of knowledge that integrates the human centered design approach. In the paper we investigate how to use quantitative and qualitative tools from the neurosciences and psychology field, to evaluate the user experience when using a product design. The paper describes a case study developed in an interdisciplinary research group.

2018 Special Focus: No Boundaries Design

Pocket Prototyping: Enabling Users and Stakeholders to (Critically) Reflect On Present Structures and Alternative Futures

Marie Lena Heidingsfelder

Fabian K.W. Bitter, Fraunhofer Institute for Industrial Engineering IAO, Germany

Prototypes and prototyping-techniques are well established in traditional design processes. They allow the testing of possible development paths and exploring of features of future products or services. In design processes with multiple stakeholders, prototypes can be used to translate ideas and implicit knowledge into artefacts which then serve as "communication objects" for the group. Furthermore, prototypes can be a vehicle for a focused discussion and a confrontation of theories. Our approach, named "pocket prototyping" (PP), builds upon these well-established theories and practices. But as opposed to traditional design processes, it doesn't test possible development paths or semi-finished products. Instead, it enables different stakeholders and lay-persons to develop a "designerly approach" when dealing with different, even abstract questions and topics. Using a restricted number of materials as a starting point, it fosters creativity, design thinking, and critical reflection. As the name "pocket prototyping" suggests, our method uses restriction as a key principle. Instead of giving participants access to a big material storage, prototyping kits with carefully selected materials are prepared and distributed. This "force fit" approach pushes participants to engage in a dialogue with the available material and to enable design thinking. The reduced complexity of the kits allows the preparation of a high amount of kits in order to involve a large number of people. Using the same kit-composition, furthermore, increases the comparability and enables researchers to analyse the results. In our paper, we introduce the method and underlying approaches and theories using examples and use cases.

Design Management and Professional Practice

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Monday, 5 March	
14:45-16:25	**PARALLEL SESSIONS**

Room 3	**Design Practice and Collaboration**

Commensality: Breaking Both Bread and Boundaries
Nan O'Sullivan, Victoria University Wellington, New Zealand
David Hakaraia, Victoria University of Wellington, New Zealand
The word commensality refers to the everyday practice of coming together around a table to break both bread and boundaries. Until recently this has been one of those words hidden in academia, but this research asserts it is time to shed some light on the advantages to reinstating commensality within a modern society that, this investigation posits, is plagued with issues of obesity, loneliness, and a lack of social connectedness. As far back as the seventeenth century anthropologists have discussed commensality as having beneficial influences on establishing, maintaining, and enriching social relationships among people. Commensality is a social act that involves rules of organisation, hierarchy, solidarity and boundary. But as importantly it involves people, food, rituals, time and space. By positioning commensality within the frameworks of Indigenous Wisdom and Everyday Life Discourse found in Transition Design, a comparison between traditional, now outmoded practices around food gathering, preparation and consumption, and contemporary social behaviours around these activities will be undertaken. Using everyday narratives of traditional New Zealand Māori and Pasifika experiences of food sourcing, preparation, ritual and consumption (Hākari) this research explores and demonstrates ways in which commensality can enable the everyday human need of connectivity to better be served.
Design in Society, 2018 Special Focus: No Boundaries Design

Room 4	**Politics of Visual Culture**

Pavillon-Pavilion: Speak, Listen, Hear, See
Jon Jicha, Western Carolina University, USA
Pavillon/Pavilion (pavillon-pavilion.org) is a group of faculty and students from WCU School of Art and Design. Our concern for this exhibition targets a climate of public perception neutralized by overt strategies of disinformation, lies, and alternative facts. Collectively the group challenges some of these issues through individual visual and audio responses within this exhibition. Our group includes Jon Jicha (faculty coordinator) and design students Eddie Maiale, Will Guthrie, Brad Baker, Todd Charles, Caroline Rains, Kaitlin Crouch, Kristen Lund, and Savannah Camper. The exhibition features eight individual projects. News Feed is a critique of the growing dis-information in the media. Misguided news articles are being created to encourage opinions that are not based on facts. Highlighted in "News Feed" are factual articles paired with false articles which display "alternative facts." While "News Feed" presents both fictitious and real references, the viewer remains conflicted and unable to sort out the truth. "Non Sequiturs" is a collection of disjointed visual conditions that provide new meaning and new interpretations of our real world. Appropriating images from a vintage dictionary, this card game is made up of curious cultural gestures, objects, and diagrams. "Talk @ You" highlights the role of the online comment, authored by someone hidden behind a screen. The videos flip the role of language – prioritizing the comment, rather than the content of the original post. Online posts are anonymous and authors can hide behind the computer. Here, the speakers read real comments from online posts. The text appears backwards in order to represent speaking from within the anonymous space inside the computer. The "Underbrellas" encourage people to resist patterns in our culture that lull us like symbolic sheep. Each Underbrella features sheep on the interior and exterior which have the subtext of Pavillon-Pavilion: Speak, Listen, Hear, See. "HB 2" presents a critique of North Carolina's House Bill 2 ("the bathroom bill"). The placemats serve as a metaphor for digesting the effects the bill has on society. The wallpapers are loosely sourced from American design from the nineteenth, twentieth, and twenty-first century. The piece critiques gender roles and their evolution over time. "In Justice For All" the constructed phrase is a word assemblage that encourages individual action through the sub-text: speak, listen, hear, and see. "Double Speak" finds the truth in the noise. In "Atrophy" this animation targets the question of security, safety, and protection in society through a lens of paranoia. The text appears and disappears in a series of ominous transitions that reinforce fear.
Design in Society

"Visualizing" Information: Magnification of the World of the Perceptible and the Power of Functional Image
Cristina Santos, Polytechnic Institute of Beja, Portugal
Maria Joro Pereira Neto
One of the biggest challenges of information design is to make the world more intelligible by providing knowledge that disseminates cultural and civic causes, while simultaneously conveying sensations and emotions that increase our quality of life. There is a reality that we cannot "see," filled with information and phenomena; the desire to grasp this information and phenomena is as strong as the desire to make them communicable. Making them "visible" and understandable to human beings through visual/graphic media requires designers to create "functional images." This paper addresses a theoretical reflection on the role of information design and infographics in the diffusion of messages that are useful and usable to individuals and society. We argue that, in a society where it is necessary to organize information overload, and in a world increasingly saturated by banality and noise, information design is indispensable to put order in a persisting information chaos, contributing to a greater apprehension and readability of the informative message. Finally, we emphasise that "visualising" information expands the world of the perceptible by conveying knowledge from a non-visible world, "teaching" the brain to create mental visual images and allowing us to reason and plan actions that facilitate our daily life.
Visual Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Monday, 5 March

Humor as Carnivalesque Imagery for Peace Activism in Cyprus
Senih Cavusoglu, Eastern Mediterranean University, Turkey

Ahmet Sozen

Both Greek and Turkish Cypriots have been living on the island of Cyprus for centuries, mostly in a peaceful way, until the 1950s. Then on, the island has been stricken by a protracted ethnic conflict with foreign interventions. Humor is always an instrument for social change and it is a resistance method without objection. Humor banalizes the things that form the source of fear, conflict, and violence. It suspends the source of power, oppression, and political orders. The power of humor as a nonviolent resistance, which encourages the people to step toward change for peace in Cyprus, will be discussed within the study. Carnivalesque imagery that has been uniquely created within the last two years can be considered as the products of a powerful intuition which easily grasps the change, is read immediately, and can transfer the reaction to the public area in the form of humor will be discussed. In this study, humor as carnivalesque imagery created for social media via visual communication designs mainly in the form of photo manipulations for peace activism in Cyprus will be showcased.

Visual Design

Room 5 | ### Consumerism: Designing for the Market

Newbie Consumer: A Marketing Gap for Halal Products
Pibool Waijittragum, Suan Sunandha Rajabhat University, Thailand

Newbie consumers represent new buyers in the economic system. There are eight types of consumers in the new millennium, consisting of brand ignorant, shopaholics, impersonator, media addicted, trend resistant, against the ad, discount lovers, and marketing lovers. Their behaviors have created a marketing gap for modern trade of Halal products. Islam is a major faith in Malaysia and Indonesia with an estimated 250 million believers. There is no-doubt for the identity of their consumption. Halal products could represent the universal goods for all of them. The concept of Halal has never changed throughout Islamic history. However, recently the behavior of the consumer could force new marketing trends that made a gap for Halal products, as are; niche market products and premium products. It is easiest way to communicate to newbie consumer to maintain their beliefs with high quality ingredients and extraordinary image of Halal nowadays.

2018 Special Focus: No Boundaries Design

Dealing with Users' Participation in Design of Products and Services: A Case Study with Small Companies
Lucía Sánchez de la Guía, Technical University of Valencia, Spain
Marina Puyuelo Cazorla

Lola Merino Sanjuán

In a previous study we analyzed a literature review about customer participation, corporate strategy, and business models. We have selected different keywords that authors have used to refer to user participation in the development or design of products and services. In these concepts we have observed the relation that authors establish between user participation and new product development, and user participation and value creation from a strategic and business model perspective, including firm perspective and customer satisfaction. In this work we focus in the search of keywords in relation to terms which indicate corporate strategy and business models. For this purpose, we use VantagePoint software (The Search Technology Inc.) to elaborate a co-keywords matrix in which rows are keywords related to types of participation and columns include keywords indicating strategy and business model. This work uses the ideas and terms obtained from this revision about participation of user/customer in strategy and business models to define and validate an empirical research focused on some firms located in our area, to know how they deal with this topic.

Design Management and Professional Practice

Co-creation for Innovation: From Digital Identity to Customized Shoes
Lihi Laskar-Dangoor, Bezalel Academy of Art and Design Jerusalem, Israel

This work examines the question, "Can a user's digital identity and social media profile serve as the basis for customized footwear?" Utilizing data gathered through a variety of methods, including academic publication review, expert interviews (footwear designers, information monitoring engineers, digital fabrication experts, etc.), brand analysis, market research, product characterization, and more, clear results emerged. Customized solutions available on the mass-market today focus on the aesthetics and fashion elements of the product. There's no solution that takes into consideration the shape of the foot and a customized fit. While brands spend for data that defines the customer's interests, they don't utilize the visual content curated by the customer as a tool to pinpoint their personal aesthetic. Additionally, many athletic shoes are created from 3D scanning of body parts for a custom fit; this must become more affordable and accessible. Overall the research supports the idea that a consumer's social media and online visual footprint can serve as a strong basis for defining their aesthetic. In order for this model to be successful the design manager must create a "playground" for the user where he/she is at the center of the process and can "co-design" all elements of the footwear.

Design Management and Professional Practice

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 14:45-16:25 | **PARALLEL SESSIONS** |

Room 6

Landscape Architecture: Design for Society

Water as a Social Catalyst: The Impact of Water Features on Urban Life

Tatjana Leblanc, University of Montreal, Canada

Maxime Leblanc, University of Montreal, Canada

Noëmie Candau, University of Montreal, Canada

The densification of urban centres is a growing phenomenon, which will ultimately equate to a shortage of green space and generate problems such as urban heat islands (UHI) and deterioration of quality of life. The need to re-introduce nature into city's centres is undeniable and designers and architects are searching for innovative means of addressing the need. Vertical forest, vertical farming, and green roofs are promising examples, which have gained global attention, thus far. This paper will examine the role of water in an urban space, focusing especially on water features and their ability to animate a space. We will introduce the results of a study that observed how a popular water structure in London, UK affects its surroundings. We will furthermore analyze aspects such as integration into urban landscape, relationship to surrounding architecture, human interactions, and assess the effects of light and sound on the overall experience. The results help us understand the role of water in an urban space and establish design guidelines for the following design process that aims at envisioning artifacts and infrastructures, which encourage a sensible reintroduction of nature and which respect the human scale.

Architectonic, Spatial, and Environmental Design

Effects of Building Configurations on the Cooling Ability of the Park

Sin Yi Chan, The Hong Kong Polytechnic University, Hong Kong

Chi Kwan Chau

Nowadays, urban greening is a popular program with the ultimate objective to improve environmental quality. Urban greenery can mitigate the urban heat island (UHI) effect and improve thermal comfort within urban areas. The park is one of the common urban greening areas, and its cooling ability will be influenced by nearby building configuration (e.g. building spacing, building height). This study investigates how different building configurations will affect air temperature in a park. Also, it identifyies the configuration to provide the maximum cooling effect. The findings arising from this study should provide more insights on park planning for maximizing the cooling ability in the environment.

Architectonic, Spatial, and Environmental Design

Green Typologies for Redefining the Interface: Improvement of Public-Private Edges of High-density Residential Megaplot in Singapore

Emek Erdolu, Swiss Federal Institute of Technology Zurich, Switzerland

Sacha Menz

Thomas Schroepfer

Normative theories of urban design repeatedly dismiss the concept of large plots with setbacks in favor of buildings as fixed boundaries creating "outdoor room" qualities in public space. In Singapore's high-density residential context, where megaplot and large setbacks are given, private periphery green remains the potential element to generate perceptual qualities for walkability at the public-private edge. Yet in practice, private periphery as a landscape design configuration is often tackled in two dimensions at the master plan scale. Compositional relations between landscape components in the third dimension bear further potential to inclusively define the edges of public walkways. To realize this potential, understanding the relationship between landscape configurations and urban design (perceptual) qualities is instrumental. This study develops a framework for systematic evaluation of landscape design configurations at the private periphery in terms of their potential in facilitating urban design qualities at street-scale. Five out of six evaluation parameters –imageability, complexity, enclosure, transparency, and human scale– are key urban design (perceptual) qualities adapted from a previous instrument designed to audit street features related to walkability. The sixth one is "civic provision" identified and included as an urban design quality. Each of these six with various definitions in literature is reformulated into design properties in this study for analyzing the relations within landscape configurations at the private periphery. To test, two high-density residential cases in Singapore, The Interlace (a private housing development) and Punggol Waterway Terraces (a public housing development), were used. Through mapping and systematic photography, private periphery landscape configurations of both developments were simulated and assessed according to the identified design properties. Finally, evaluation was turned into a set of design strategies for private periphery landscape configurations of high-density residential megaplot in Singapore.

Architectonic, Spatial, and Environmental Design, 2018 Special Focus: No Boundaries Design

Room 7

Workshops

Color of Space: A Tool for Spatial Design

Anya Klepikov, Princeton University and Brown University, USA

As a set and costume designer working in theater and opera, I have explored my passion for color through teaching it to students of various backgrounds. My teaching approach is inspired by the pedagogy of Josef Albers as popularized by his book "An Interaction of Color," and aims to help spatial designers become more aware of color's powerful influence on our experience of space and distance. While I take advantage of Albers' favorite teaching tool, colored paper, I have developed exercises which have more specific benefits for designers whose job it is to manipulate 3D spaces and the human experience within them. We begin by outlining the terminology to be used in the workshop. We then isolate the different parameters of color - hue, value, saturation - and manipulate them like switches on a control board while observing the resulting effect on our experience of depth and height, as well as atmosphere.

Design Education, Visual Design, Architectonic, Spatial, and Environmental Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Monday, 5 March	
14:45-16:25	**PARALLEL SESSIONS**
	If You Build It, Will They Come?: Next Steps for the Maker Movement Michael Bailey-Van Kuren, Miami University, USA Peg Faimon, Indiana University, USA Glenn Platt, Miami University, USA This workshop discusses the current state of maker and innovation spaces within university settings. Have university maker spaces achieved their potential? How far-reaching and diverse are their impacts? Has the higher ed Maker Movement stalled? Where do we go from here? The authors will present an analysis of the current state of maker spaces in universities throughout the country. Implementation, motives/goals, and usage will be introduced. Participants, in small groups, will then share their own experiences. We will then move into a larger design thinking session, asking "What's next for higher education maker spaces?" and "How do we successfully integrate maker spaces into traditional university structures?" Do maker spaces require physical space and equipment, or can we achieve the same results with the suspension of rules, a different reward (tenure) system, a buffer from institutional structure, etc. Do we too often rush to "build it and they don't come?" We need to move beyond simply creating a space and focus on creating a sustainable culture. As a group, we will create a list of criteria/guiding principles/metrics for judging the effectiveness/impact of our makerspaces and/or the considerations for building new ones. *Design Education*
Room 9	**Spanish Session**
16:25-17:25	**Welcome Reception**

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March
08:15-09:00 **Conference Registration Desk Opens**
09:00-09:25 **Daily Update**
09:25-10:00 **Plenary Session—Albert Fuster, Academic Director, ELISAVA Barcelona School of Design and Engineering, Barcelona, Spain; Ezio Manzini, Founder, DESIS Network, Distinguished Professor on Design for Social Innovation, ELISAVA Barcelona School of Design and Engineering, Barcelona, Spain, Honorary Professor, Polytechnic University of Milan, Milan, Italy, Guest Professor, Jiangnan University, Wuxi, China**
"The Making of Collaborative Cities"
10:00-10:30 **Garden Conversation and Coffee Break**
10:30-12:10 **PARALLEL SESSIONS**

Room 1 | **Teaching Methods and Practices**

Design Thinking: How Can Allied Professions Be Better Partners in Determining Our Collective Future?
Joy Swallow, University of Missouri-Kansas City, USA
Urban planning in the United States has historically abdicated design decisions to other allied professions (i.e. architecture and landscape architecture). Doing so has created a procedural disconnect within the professional world. This paper advocates for the inclusion of design education in urban planning curricula to thus empower and unite the allied professions around urban design. Within the academy design education has the power to unite as well as bring about more progressive and innovative solutions to the urbanizing world. Urban policies often have spatial implications that if misunderstood can have dramatic impact on the built environment. Conversely, design solutions that are devoid of social equity or space that has no relevant connection to the urban fabric can result as an unintended consequence. Design education can quell the acceptance of poorly conceived past precedents and chart a positive and creative way forward. Design thinking is a powerful tool that when applied and practiced can serve as a bridge to truly develop interdisciplinary teams that tackle the wicked urban problems in the twenty-first century together. Innovation, and imagining future urban scenarios requires creative design thinking.
Design Education

Theory of Enaction in the Design Studio: Toward a New Learning Experience
Virginie Tessier
Mithra Zahedi, University of Montreal, Canada
Design education insists on the acquisition of a set of skills called "basic design" by all first-year students. This set of skills, such as visual language of forms and their spatial expressions, are taught in studio classes and are often based on the fundamental Bauhaus pedagogical approach. However, contemporary issues and accelerated innovations call for the development of new skills and needs for students and industry. To improve our teaching and adjust it to today's needs, we favoured an approach focused on the theory of "enaction," as introduced by Varela, Thompson, and Rosch (1992). With this theory, the authors have argued that cognition, and thus knowledge, is fostered and refined according to the learner's actions and interactions with the environment. Therefore, we applied the approach in one of our studio classes called "Form and Color," and designed a pedagogical strategy that allowed students to seek improvement through interactions, autonomy, and individuality. Supported by the answers of sixty-eight students to an online questionnaire distributed at the end of the semester, we conclude that the enactive approach seems to have a high potential in regards to design education, learning benefits, and pedagogical experience. The acute sensibility to the world around us combined with the enactive valorization of the internal potential, skills, and knowledge of the designer is a fruitful combination.
Design Education

Design Boot Camp: A Path to Praxis
Mithra Zahedi, University of Montreal, Canada
Tatjana Leblanc, University of Montreal, Canada
Maxim Lamirande, University of Montreal, Canada
In our four-year design program the last year of study is dedicated to demonstrating acquired knowledge and the ability to tackle a problem situation and to offer informed, innovative, and viable solutions. When a fourth-year design student fails the final year, it raises many questions. Among others, did the student master the design process? Does the student know how to apply knowledge and skills to a new problem situation and navigate between problem space and solution space autonomously? Is s/he confident enough to deal with an ill-defined subject and take on the project? Are his/her communication skills sufficient? By tracking the path of students who failed over the past seven years, we noticed that most of them had somewhat passable grades in their previous years. Our hypothesis was that an intensive refresher course would be beneficial to students who still lack certain skills. Hence, we designed a pedagogical activity called "Design Boot Camp" in order to enrich participants' technical, methodological, and communicational notions, and thus better prepare them for their final year. The nine-day Design Boot Camp was offered to a group of eight students who were individually tutored throughout all activities. Two professors intervened at strategic moments presenting theoretical content, offering demonstrations, and giving feedback. This paper reports on how the boot camp was designed and implemented. The results will show how these activities helped bridge the theory and practice gap and significantly improve students' performance, implication, and communication skills.
Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

10:30-12:10	**PARALLEL SESSIONS**

Design Accelerator
Karla Sierralta, University of Hawai'i, USA
Design takes time. It is a non-linear, hyper-complex process that commands rigor, precision, and responsibility as well as empathy, poetry, and imagination. Teaching the design process to others for the first time is itself a design challenge. Researching, ideating, abstracting, developing iterations, thinking critically, constructively critiquing, collaborating, cooperating, editing carefully, and understanding the competitive nature of creative disciplines, not to mention basic design vocabulary, tools, and communication skills, are all design fundamentals that need to be taught within usually compressed time schedules. Is it possible to expedite learning without compromising quality? How might we accelerate a process that requires time for reflection and evolving of ideas? This paper will discuss an innovative pedagogy involving accelerated design practices developed for the Basic Design Studio of the Bachelor of Environmental Design Program at the School of Architecture at the University of Hawaii at Manoa and implemented during the Fall 2016 semester. A framework was designed to guide students through a series of independent, yet sequential exercises that encouraged the development of a coherent body of work, in spite of divergent explorations and/or creative failures. Design activities such as Charrettes, Competitions, Do-Tanks, and Speed-Networking Sessions were re-imagined and adapted to the studio environment.
Design Education

Room 2 | **Design History and Development**

Design Utopia or Design Fiction?: Reassessing Workplace and Education Practices in Communication Design
Laura Scherling, Teachers College, Columbia University, USA
To date, design history textbooks and curricula often eschew design education histories, in favor of a more utopian view of technology development during industrialization (Margolin, 1989, p. 257). Through this lens, this research reexamines the relationships between: the Aesthetic Movement, the Government School of Design, and the South Kensington method; the International Arts and Crafts movement, anti-industrialization, and the rise of design elitism; the syntax of modernism in design, the establishment of vocational schools, alongside the rise of advertising. By unpacking historical trends in design and design education, topics on gender, race, sustainability, and cultural appropriation emerge. It can be argued that this not only reframes design and design education history, but also informs a deeper understanding of contemporary practices in the field of design (Efland 1989; Jury, 2012; Margolin, 1989, 2015; Meggs and Purvis, 2016).
Design Management and Professional Practice

So-called Death of Design Education
Chin-juz Yeh, Fashion Institute of Technology, USA
Christie Shin, Fashion Institute of Technology, USA
The twenty-first century is a world in which individualization, flexibility, and innovation are at the heart of everything designers do. Gen-Z thinks and learns differently. Design education must be reborn for Gen-Z in order to truly transform design from a service industry to an idea industry. FIT is one of the pioneers in creative technology and design education which began introducing digital product design and digital content design in 2012. One of the most unique pedagogies from FIT's Creative Technology and Design Program is called "Guided Experiential Learning." It is a unique merger between the traditional studio classes and internship. Through its Guided Experiential Learning initiatives, FIT faculty and students have worked with major brands and international research institutions like the National Football League (NFL), Infor, and Fabrica–a highly regarded research center in Italy. For each Guided Experiential Learning project, FIT's faculty design customized workshops, lectures, and training to maximize the learning for students, and, at the same time, ensure the collaborating brands/organizations receive the highest quality design products at the end of the process. This paper is a follow-up on Yeh's 2015 TEDx Talk, "Why Flexible Branding Reaches Millennials." Yeh and Shin will share case studies, best practices, and insights on how Guided Experiential Learning has been adopted in higher education. Relevant pedagogies and teaching methodologies will be introduced, and a discussion regarding the challenges and opportunities particularly in its application and relevance to college-level design education.
Design Education

Organically-designed Objects: The Creation and Continual Revival of Art Nouveau's Everlasting Beauty
Rachel Pool, Western Spirit: Scottsdale's Museum of the West, USA
The transient style of Art Nouveau architecture, interior design, and the ensuing decorative arts, fashion, and textiles captivated societies in the late nineteenth century for a fleeting twenty-year period between 1890-1910. The organically-focused design principles practiced by leading Art Nouveau designers accentuated the user's desire to be connected to the natural environment. Tendril-like forms and flora and fauna were combined with sinuous lines that transported the viewer to an undiscovered, ephemeral beauty. Unlike any design movement in history, Art Nouveau was a rejection of architectural and design principles and practices that formulated the previous style of Arts and Crafts and succeeding evolutions of Art Deco and Modernism, popularized with conventions such as geometric angles, symmetry, and precision. Eventually overrun by the budding trend of Art Deco, Art Nouveau was soon replaced with designs that evoked modern inventions in a rapidly changing society. However, Art Nouveau saw a revival fifty years later in the 1960s, an era that was defined by topics such as civil rights and feminism. Ultimately, popularly unbeknownst is the current rejuvenation of Art Nouveau in the world of design, decorative arts, fashion, and textiles. This paper demonstrates, through images of objects the revitalizations of Art Nouveau in American society, propelling an awareness and consciousness for the natural environment.
Design in Society

Tuesday, 6 March	
10:30-12:10	**PARALLEL SESSIONS**

Room 3 | **Social Design, Social Responsibility, Social Change**

Aspiring to Change: A Creative Body of Research Focusing on Environmentalism
Kelly Salchow MacArthur, Michigan State University, USA
Activism through design is especially relevant in this era of extreme dichotomy. The designer-as-author role allows one to reflect on one's beliefs and share them with a broader community through the tools of visual communication. Considering such opportunity and responsibility, I have focused my creative research over the past decade on environmental concepts, as I believe these to be fundamental and immediate to the survival of humankind, as well as the ecosystems we impact and are a part of. Doing so is a way to creatively participate in (and perhaps sway) the ongoing dialogue of urgency met with inaction. Within this body of work, various strategies have been explored—humanistic appeals to reconnect one's self with nature, alarming statistics meant to instigate response, logical calls to action, collaboration to visualize a poet's environmental warning, partnership with an eco organization for community engagement, etc. This paper will share creative research that varies in method, message, and material, yet maintains the commonality of environmental principles. While such work has proven to be personally, conscientiously, and professionally enriching, the main ambition has been to relate to viewers in unexpected ways and affect change.
Visual Design

Designing for the Future: Indigenous Knowledge as More Than a Historic Moment in Time
Nan O'Sullivan, Victoria University Wellington, New Zealand
In parallel with the tenet of Indigenous wisdom within transition design, this research illustrates the opportunity afforded design when cultural ideologies and practices like Kaupapa M ā ori, (M ā ori values) and the Tongan ideology Ta- V ā , (time and space) are imbued in design pedagogy, thinking, and praxis. This study demonstrates the relevance such place-based, "slow knowledge" offers design in its response to global and social issues. Terry Irwin states, "designers have much to learn from these approaches and their symbiotic relationship with the natural environment" (Terry Irwin, 2015) and further asserts the inter-generational sustainability achieved within many indigenous cultures. Ta-V ā is explained as "all things, in nature, mind and society, stand in eternal relations of exchange" (M ā hina, 2010, p. 169). Ta-V ā and Kaupapa M ā ori speak to holism, reciprocity, and connectivity. This study parallels the indigenous proclamation that "people walk backwards into the future," (M ā hina, 2010, p. 169) alongside transition design assertions in which indigenous wisdom is purported as valuable to the design of "solutions in the present with future generations in mind" (Terry Irwin, 2015). To ratify this claim pedagogical strategies and student work are included in the discourse. This research encourages a move forward in which indigenous knowledge is included in our contemporary design "kete" toolkit.
Design Education, 2018 Special Focus: No Boundaries Design

Co-designing in Communities: Indigenous Research Methods for Development
Maria Rogal, University of Florida, USA
How can design play a role in giving people the voice to choose their own way of thinking and acting, themselves to be agents of change within and beyond boundaries? For over a decade I have led a binational and intercultural co-design initiative. As designers from the United States working with indigenous Mexican entrepreneurs, our shared goal was to support their entrepreneurial activities in their rural communities in order for them to create more sustainable economies, cultures, and communities. A key aspect of our work together was to explore ways to communicate our partners' own ideas and cultures as they would make, market, and sell their own products and services. A challenge was for people to write their own identities and values, in contrast to an often essentialized indigenous and Mexican identity to support regional tourism. Our co-design process was effective in telling a story written by the community and appropriately frame their identity through design, countering a dominant narrative. While there is a history of designers working with indigenous entrepreneurs, with varying success, our process, grounded in fieldwork, uses a methodology drawing from interdisciplinary methods, including concepts articulated in indigenous research methods (Tuhiwai Smith, Wilson, Bagele, and others). Three overarching concepts (negotiating, sharing, and representing) form our methodological foundation and frame our collaborations. Interactions in communities empower project participants, both entrepreneurs and designers, as we use communication design to re-write/right identities and communicate these in the public space. This is fundamental to empowerment within communities and contributes to the multi-vocality necessary in a healthy civil society. In this paper, I use two co-designed artifacts as points of departure to discuss the relevancy of the three concepts to this collaborative process.
2018 Special Focus: No Boundaries Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

10:30-12:10	**PARALLEL SESSIONS**

Room 4 | **The Future of Professional Practice**

Growth of Independent Practices in the Architectural Profession in China
Jiawen Han, Xi'an Jiaotong-Liverpool University, China
China has gradually increased the space for private architectural practices in the professional market since the reform and opening-up in 1978, which was formerly a system of design institutes. There are new smaller architectural practices, which are normally an individual leading a small team or a partnership with other personnel as a small practice. These kinds of businesses were in the extreme minority and were called experimental architects when they were emerging in the late 1990s. These organizations and their role and society in the market are better recognized now. The new direction in China, which was proposed in 2016, aims to establish an effective lifelong responsibility system for architects and to strengthen the individual qualification for practice. At the same time, the state's intervention with the design institute is also changing direction, mostly based on the changing national strategic plan, which to some extent further differentiates the independent architects and architects working in a design institute. This paper uses findings from interviews with a range of stakeholders in the industry, together with historical material, to provide an analysis of the redefined profession and the changing responsibilities of architects due to the growth of independent practices in professional practice in this increasingly complex societal transformation of China. Furthermore, this paper sheds light on its potential impact on the future work and practice in the architectural profession of China.
Design Management and Professional Practice

Toward a Design-led Entrepreneurial Framework
Con Kennedy, Dublin Institute of Technology, Ireland
A likely route to employment in the communication design sector is self-employment, be that in practice or as free-lance. Communication designers form, manage, and run their design enterprises. Therefore these individuals are design entrepreneurs. Communication design is a business, and like any other type of business, these practices must make a profit to survive and grow. However, the literature on entrepreneurship and entrepreneurial theories have tended to ignore design as an enterprise. Designers have identified skill deficits that center around entrepreneurial and business management skills, which would seem to be hindering the growth and sustainability of individual creative enterprises and the sector as a whole. However, there would seem to be a previously unconnected relationship between the entrepreneurial and design processes which may address the deficit in business skills within creative enterprises. Design entrepreneurs are different from other forms of entrepreneurs as the design entrepreneur is inextricably linked to what they do and their product offering. This paper investigates the relationship between design and entrepreneurship and proposes a design-specific entrepreneurial framework for creative enterprises.
Design Management and Professional Practice

The Innovation Patterns of the Office Furniture Industry in Turkey
Selin Gulden, Izmir University of Economics, Turkey
Workplaces have evolved through time as the idea of work and the workforce has been changing. Office furniture design, being a $3 billion industry, has played the most important role in this evolution with milestone innovations. Turkey was given the status of "Moderate Innovator" by the European Innovation Scoreboard 2017 with relative strengths in firm investments, innovation-friendly environment, and innovators with product/process, marketing/organizational and in-house innovating SMEs. Thus, this study focuses on the innovation strategies and new product development process of innovative and successful office furniture manufacturers in Turkey. The methodology used in the analysis is a multi-case comparative study of office furniture manufacturers in Turkey as best practices. The cases are analyzed in terms of their innovation patterns which include inputs (sources of innovation), process (innovation/NPD process, innovation approach), and outputs (dimensions and degrees of innovation). The study shows how the office furniture industry in a developing country such as Turkey innovates by constructing a conceptual model, and how that innovation positively influences business performance and the evolution of a design field such as workplace/office design. The study also discusses direct implications for office furniture manufacturers aimed at improving innovation effectiveness.
Design Management and Professional Practice

Ethics of Visual Communication in Product Design
Tarek Mohamed, University of Science and Technology, United Arab Emirates
This paper discusses how to create an ethical product through an ethical designer. One can judge the quality of a design based on its visual appearance. Visual communication design is a wide expression, it expands to include the visual information design, interface design, and the appearance of the physical product itself. Designers have more power to influence than they can imagine. Visual communication design can inform people's decisions about where and how they live and what they buy and consume. The visual presentation of information influences people's choices on what they think, need, or want. Physical product appearance is an important quality signal for consumers. In addition, a certain style of appearance may evoke associations with a certain time or place. Furthermore, the product or package appearance can reinforce the image of a brand, as the identity of a brand is visually expressed in the appearance of products. Ethics is the frame of the design factors. It is important to make a combination between graphic design and product design, to further analyze how different designers apply their own ethical principles and values into their work and design practice. The main object of this paper is how to create an ethical product through an ethical designer.
Visual Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March
10:30-12:10 **PARALLEL SESSIONS**

Room 5	**Sustainability and Environmental Design**

Communidata: A Data Visualization Platform for Sanitary Systems in Precarious Settlements in the Brazilian Amazon
Acilon Cavalcante, Federal University of Pará, Brazil
Data visualization is a universal tool to manage situations and solve urban problems since the nineteenth century. Even today, it can be used to address the same challenges, as sanitary epidemics, public investments in water supply, and urban planning. However, we now use more sophisticated tools, such as digital technologies and sensors. This paper shows the conception and development of a system created to visualize water sources and related epidemics in precarious settlements in the Amazon. It explains the concepts based on human-centered design, its network diagrams, technologies, and the results expected through this platform. As outcomes, it shows the georeferenced map, where we have information about typologies in precarious settlements, and it shows the relation among epidemics such as zika, chikungunya, dengue, and giardiasis, with the sanitary conditions we see in those settlements.
Architectonic, Spatial, and Environmental Design

Design Strategies for a Sustainable Future: Rethinking the Sidewalk
Tatjana Leblanc, University of Montreal, Canada
Designers and researchers can play an important role in developing sustainable solutions and raising awareness about circular economy. As creative problem-solvers, they are understandably concerned with the emerging needs of modern society. Yet, dealing with complex issues requires a broader understanding of the problems at hand. An enriched perspective allows designers to tackle problems and envision sustainable alternatives. The paper examines the strategic value of a research-driven design and how research nurtures the creative process. It will explain how research can drive design goals and criteria and emphasize its importance in finding innovative solutions. To support the arguments made, we use a case study that will demonstrate the role design can play in the development of sustainable urban infrastructures. We introduce a study that rethinks the sidewalk as a modular system using eco-friendly materials. The results address not only the identified problems, they also provides an innovative alternative, which showcases state of the art technologies and research finding. The paper will conclude with a discussion about the viability of such an approach in professional practice and thus contribute to the debate on design research and sustainable design practices.
Architectonic, Spatial, and Environmental Design |
| Room 6 | **Typography and Visual Design**

Experimental Typography: Creation of Letter Design and Forms
Vijay Shah, Symbiosis International School, India
This paper introduces the case studies of experimental typography in the graphic design area, while introducing to students a typography module. The objective and aim of the study as a mentor is to share knowledge and understanding and to create awareness of different font/type styles of display fonts which conveys the meaning through visual form. This paper discusses different levels of brain storming sessions of the second-year young design students to graphically depict the importance of visual/images in their creations and build their confidence of their own creative work, which is more unique compared to the stuff available on internet just at a click of button. The graphic design students practice and learn the elements and principles of design theories to articulate their thinking process through projects. This research helps the students to develop and solve the technical and practical problems of type design and principles. It gave a great feeling and made me proud in a noble profession as a mentor to teach the young upcoming (blooming buds) graphic design students who did not have any previous typography knowledge or had practiced before.
Visual Design

Is Design Everywhere?: A Mere Search for Letter Design
Gautam Vasa, Symbiosis International School, India
Vijay Shah, Symbiosis International School, India
Design is everywhere. Is it? In this highly advancing technological world, where information is available for anyone who wants to acquire it and who knows how to "search" for it, where is design? Many times people stare at their search tab looking at it blankly saying and I quote, "I think, so I have a mind block." I don't know what to search for my inspiration. So many time we have the answer sitting right in front of us, the design solution right in front of us, all we need is not a strong connection to the Wi-Fi, but a strong connection to our own search tab, our ever-wondering, ever-loading eyes. We at Symbiosis Institute of Design had the opportunity to work on this very amusing topic of creating a letter design with an uncommon approach. The very flavour, the very twist of it was that we had to create a letter design that was inspired from nature or a man-made object. We were literally made to leave our so-called "work environment" and head outside. We had to come up with a letter design which will be only used for headings (display font). We had to design the letters all in caps from A to Z. The letters should be self-assuring to find our inspiration.
Visual Design |

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Tuesday, 6 March	
10:30-12:10	**PARALLEL SESSIONS**

A Modular Approach to Type Design: The Identification and Design of Particular Elements and Patterns within Type Design

Leon Butler, National University of Ireland Galway, Ireland

Modularity is the basis of all lettering. This study focuses on an ongoing research and production project that is exploring different approaches to generative type design. Modularity as the basis of all lettering can be seen across different cultures such as the Roman order systems for construction numerical and Chinese types always adhering to a square grid structure. Johann Neudırffer the Elder the author of "Fundament," (Neudırffer, 1541), has been credited with the development of a blackletter type "Fraktur" which he released in copybooks for people to develop the calligraphic style. He also constructed full type systems using a square which provided the basis for each letter and was divided into ten equal parts allowing for a grid to be placed in his copybooks. While researching these systems I identified a little know typeface "Fregio Mecano," a modular typeface of Italian origin that dates to the 1920s. The designer of "Fregio Mecano" is unknown but it is featured in "The Encyclopedia of Type Faces by W. Turner Berry" (Berry, 1990), alongside the typeface, Fregio Razional attributed to Giulio da Milano for Nebiolo, so it can be assumed that Milano designed Fregio Mecano also. Using the original grid form of "Fregio Mecano" as a basis, I created the twenty elements in various orientations and positions to construct the letterform. By investigating visual forms, I hope to be able to draw insights around the use of vertical sections, curved joins, negative counters, and other comparative elements common across the forms. The system of typographic modularity was developed through simple graphical techniques, such as layering and comparison, insights were generated relating to various themes and visual characteristics that were common across each of the glyphs. A completed typeface, including numerals and punctuation, has now been constructed to explore how these modular elements combine and demonstrate how this practice-based method can help designers, students, or educators build a modulator typeface from a fixed palette of visual elements and arranging those elements to create various styles of type for use in different contexts and different visual approaches.

Design Education

| Room 7 | **Design to Impact Markets** |

Combining Sustainability and e-Commerce: From Future Scenarios to Tangible Design Proposals

Agnese Pallaro, Polytechnic University of Turin, Italy
Amina Pereno
Silvia Barbero

e-Commerce represents a rapidly growing phenomenon, which interests almost all production sectors, and has substantial impact at the global level. This new purchase channel implies not only a different logistic organization but requires a radically different mode of interaction between sellers and customers. Two main threads can be identified in this context: the trend towards on-demand economy and the requirement of increased sustainability of the sector. The paper focuses on the challenging topic of applying the concepts of local and sustainable development to the world of e-commerce, guided by delocalization, cost-effectiveness, rapidity, and availability anywhere at any time. The topic has been explored at two different scales, at the logistics and packaging levels, for horizontal marketplaces, vertical marketplaces, and small-scale producers. In the former case, the methodology of systemic design was used to define innovative future scenarios for the logistic management of the e-commerce system; whereas, the latter case adopted an eco-design perspective focused on the development of paper and cardboard packaging.

Architectonic, Spatial, and Environmental Design

The Relationship between Consumer's Design Knowledge and Meaning in Design Direction in Thailand's Furniture Industry

Wannayos Boonperm, Chulalongkorn University, Thailand
Pongpun Anuntavoranich

This study investigates the relationship between consumers' design knowledge and their interests in the meaning of the product for the benefit of managing design strategy. Products created through the process of a meaning design strategy sometime ends up with a failed result. The problem is that the meaning does not match consumer intention. The evidence shows that the different levels of consumers' design knowledge affect consumers' selection on the new meaning of the product design. Consequently, this study investigates the relationship between the consumers' level of design knowledge and their decisions to choose the product meaning. Therefore, this research helps designers and project managers to successfully manage their product development project. To conduct this study, the consumer intention on product meaning needs to be discovered. Then the result will be implemented with the level of design knowledge in order to understand the relationship between consumers' design knowledge level and their intention on a product's meaning. This research chooses quantitative method through a survey to collect data from samples selected with a non-probability method of using a convenient sampling. This study collects 442 samples from the furniture industry in Bangkok, Thailand.

Design Management and Professional Practice

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Tuesday, 6 March	
10:30-12:10	**PARALLEL SESSIONS**
	Creative Failing by Design Thinking: Focusing on a Failure Management Model, Attempt-Share-Reinforce Boram Park, IDAS Hongik University, South Korea Digital technology has created business environments that are difficult to survive without creative innovation. As for that, the meaning of failure has changed as well. Understanding failure as inevitable means a lot for innovation, but it is not something beyond recovery. Increased efforts are being put into arranging active management systems to include failure. By eliciting changed perceptions on failure and actively exercising it, "design thinking" methodology, which stands on the basis of quick failure, has received attention. However, this has its limits as such methodology is only facilitated effectively in a field where making prototypes are easy. This study proposes a failure management system that can enhance innovative competence of organization by helping overcome the fear of failure, inducing new ventures persistently, and selectively reinforcing the advisable attempts at the same time from the perspective of organizational behavior. A case study on successful failure management makes clear that failures can become an organization's asset and motivate new ventures through appropriate reinforcement of action. In conclusion, virtuous cycles, which increase innovative attempts, are possible when the failures are judged by reinforcement criteria and made into assets through an appropriate share system. Repeating this cycle promptly and organically raises the possibility of innovation by creative learning by failure. We suggest a failure management model called ASR (Attempt-Share-Reinforce) based on design thinking methodology. *Design Management and Professional Practice*
Room 8	**Rethinking Design Education** **Patterns of Design Decision-making among Undergraduate Graphic Design Students: An Action Research Investigation** Demetra Perdiou, Cyprus University of Technology, Cyprus This investigation examines design decision-making among undergraduate graphic design students and more specifically unpacks the patterns of decision making and their respective characteristics. The impetus for this research came from anecdotal evidence and more specifically from observations of graphic design students who often seem not able to rationalize the decisions they make during the design process. There is no empirical literature on this topic, i.e. on capturing and articulating the variation of decision-making in graphic design, although there are individual authors who have articulated decision making processes in other disciplines. Two small-scale pilot studies were contacted at Cyprus University of Technology (CUT) to confirm the original observation, i.e. the inability of students to rationalize design decision making. This informed the first stage of a planned intervention based on action research. Based on the outcomes of the two pilot studies, a matrix was developed to facilitate the rationalisation of the design decision-making process. The overall objective is to test the matrix with a bigger sample of students and refine the matrix as a means of assisting then in articulating their decision making. *Design Education, Visual Design* **Exploring Tools and Strategies for Collaborative Design Education** Myriam D. Jutras Mithra Zahedi, University of Montreal, Canada This paper reports on students' viewpoints regarding the tools and strategies they used during a collaborative design project to overcome challenges. In design education, multidisciplinary team projects are real issues for junior designers. In such situations, collaboration in the design process is known to be difficult. Thus, the need for various approaches to help collaboration is clear. This paper reports on students' view points regarding the tools and strategies they used during a collaborative design project to overcome challenges such as identifying common goals, building consensus on criteria of the project, and communicating results. Nine graduate students participated in the study. They formed multidisciplinary teams of three and worked together for four weeks. At the end the of the project, students reflected on fourteen open questions about roles and impacts of the proposed tools and methods on the project, on design process, and on team interactions. Through careful analysis and interpretation of our data, we conclude that development of mind-map payed different roles. It helped the process of reaching common understanding, particularly regarding language, knowledge, and interest in the project. It also helped to build a comprehensive picture of the project from multiple viewpoints. The 4i approach was considered as a guideline to initiate collaboration, facilitating the process of achieving results. In addition, several strategies helped overcome obstacles, and empathy was identified as a strategy to better understand others, integrate the vision of all and build trust among the teams. The study brings insights for collaborative design education. *Design Education*

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Tuesday, 6 March

10:30-12:10	**PARALLEL SESSIONS**
	Voices from Architectural Design Studios: Design Studio Methodologies from Architecture Design Studios in the Kingdom of Saudi Arabia and the United Arab Emirates SukHee Yun, Prince Sultan University, Saudi Arabia In order to understand its multilayered mixture of social, professional, and cultural value, basic value on architecture, experiential, and tectonic investigation in design studios have been introduced, discussed, and explored in various formats. It wasn't new to face strong hesitance to generate their own voice, their own rhythm. Pedagogical inquiries to the hesitance in architecture studios inspired various design methodologies. In return, the words from their voices link the past and the contemporary architectural design. In this paper, seven studio works and process will be introduced. Along with the ideas brought up in the studios, students' works from seven different studios will be introduced and discussed further to question how we can convince them to find their own voice in architecture studios pedagogically. *Design Education*
Room 9	**Spanish Session**
12:10-13:10	**Lunch**
13:10-13:55	**PARALLEL SESSIONS**
Plenary Room	**Posters** **Wavelength: Painting Processes for Three-dimensional Space** Emily White, California Polytechnic State University, USA The large-scale installation, Wavelength, uses data collection and feedback processes developed by two landscape painters to promote a three-dimensional interpretation of color and light specific to its site. Situated in a major international airport, it is meant to humanize the often banal and generic experience of air travel by evoking the specificity of place. The site is Fort Lauderdale, a coastal city that is defined geographically by beach and inland waterways. The methods of landscape painters JMW Turner and Richard Diebenkorn informed the design process. Both had a particular focus on light refracted at or near the ocean and each developed rigorous techniques to extract, isolate, and recombine color. Turner worked with color as a means to depict luminous and volumetric sea swells. Diebenkorn abstracted light as color and shape, evocative of particular qualities of place in his Ocean Park series. Wavelength uses these techniques, extraction and isolation of single hues and recombination as flat layers, to create a three-dimensional description of the qualities of light at the site. This project explores methods for translating two-dimensional painterly techniques into three-dimensional design, and the tools and fabrication processes necessary to realize this translation at a large scale. *Visual Design* **Temporal City: Urban Festivals, Urban Identity, and the Urban Social Space** Anusmita Das, Indian Institute of Technology Guwahati, India Amarendra Kumar Das With growing urbanization in India, informality has become a significant characteristic of metropolitan cities. Urban cities in India can no longer be perceived as a two dimensional static entity, rather their temporary, dynamic characteristic has become the dominant image. Temporal events such as festivals which are an important aspect of urban life create an ever-transforming streetscape where the urban condition is defined by their kinetic characteristic. Festivals attract a great number of visitors which can lead to the formation of an ephemeral landscape. These spectacles which form an integral part of the Indian urban scenario require an in-depth analysis on their role in shaping these urban spaces and giving them meaning outside the framework of everyday experiences. Their role has not been taken as a factor for studying urban identity even though they have permeated and dominated the popular visual culture of Indian cities since ancient times. The study of Ambubachi Mela in Guwahati, India takes the approach of a systematic and objective documentation of processes at the festival in order to understand the conditions of temporal urbanization, planning, and management of this huge festival and the myriad of ways these urban festival spaces are experienced by the participants. This paper thus focuses on two major aspects: the generic, spatial characteristics of festival spaces and the temporal, fleeting events that occur during this festival. The spatial and behavioral focus of this research is analysed in the context of event-space relationship in the backdrop of the ever-changing landscape during Ambubachi Mela. *Architectonic, Spatial, and Environmental Design*

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| 13:10-13:55 | **PARALLEL SESSIONS** |

Graphic Design in the History of Lighting: Aspects from Modernity to Contemporaneity

Helena Câmara Lacé Brandão, Federal University of Rio de Janeiro, Brazil

Aline Soares Hildebrandt Pinto, Federal University of Rio de Janeiro, Brazil

Mona Alves de Carvalho, Federal University of Rio de Janeiro, Brazil

Rafaela Fernandes Lima Wehrs, Federal University of Rio de Janeiro, Brazil

Flavia Leite da Rocha de Souza, Federal University of Rio de Janeiro, Brazil

This paper discusses, through advertisements collected in research about lighting history, the information relevant to graphic design, when people began to use the electric lighting system at home and the information that is now necessary to be communicated to society due to the new technologies of light. The study discusses how graphic design had an important performance in both periods, through the relationships of design, consumption, and identity. The graphic design of lighting equipment advertisements, as well as of light bulbs packaging, was very important in the diffusion and implantation of the electric light system in the early twentieth century. This visual communication helped the consumer understand the new technology and thus choose the most appropriate product. Nowadays, new light technologies are being used in indoor lighting and graphic design continues to be relevant for contemporary society as access to information. However, the challenge that is noted in the course of the research is the need to break a visual identity that has consolidated over time and that is still present today by the image culture.

Visual Design

Development of Packaging for Make-up with Bio-inspired Design and Biodegradable Materials

Daniela Cristina Brioschi, Federal University of ABC, Brazil

Rovilson Mafalda, Federal University of ABC, Brazil

Silvia Lenyra Meirel Titotto

The packaging market for cosmetics, especially make-up, has been experiencing a constant evolution in terms of design, since the packaging represents an important tool to communicate with the final user. In this scenario, traditional plastic materials play a fundamental role and have prospects for future growth, since they are considered light materials with relatively low cost and with good properties required for several applications. Given such circumstances, it is necessary that the application of new materials have the potential to minimize the environmental impacts caused by traditional polymers. In this sense, biodegradable plastic materials are presented as more sustainable alternatives to the utilization of these materials. The goal of this ongoing research is to develop, through the use of appropriate design methodologies, CAD/CAE systems, and also prototypes, of a new model of packaging for cosmetics with forms and functionalities inspired by nature, with the incorporation of biodegradable materials, in order to achieve a product that is capable to meet design and sustainability requirements.

Designed Objects

The Improvement of Skills and Competences through Practical Multidisciplinary Experiences for Industrial Design Students

Lucía Rodríguez Parada, University of Cádiz, Spain

María Alonso García, University of Cádiz, Spain

Rafael Bienvenido, University of Cádiz, Spain

This study describes and analyzes the case study of experiences developed in the different subjects of the Industrial Design and Product Development Engineering Degree at the University of Cadiz. Traditionally, higher education centers considered knowledge more important than the acquisition of professional skills. As opposed, companies not only demand knowledge, they also seek skills and abilities in their workers. In order to prepare students for the market labor, during 2015-16 and 2016-17, courses have been planned and carried out with multidisciplinary experiences among various subjects for the Industrial Design and Product Development Engineering Degree at the University of Cadiz. These experiences encourage a more professional approach and self-taught approach, linking knowledge between different subjects.

Design Education

Sensory Design in Games: Beyond Visual-based Experiences

Priscilla Garone, Federal University of Espirito Santo, Spain

Technological expansion permeates game design, transforming data processing, the representation of sounds and images, players' experiences, and the designer's own thinking and design. Games are not just visual and interaction is possible in many ways. The discussion of the aesthetic experience in games goes beyond visuals and game devices. They are often designed and improved to enhance and stimulate our senses through new ways of interaction. This study introduces the theme of sensory experience in games as being beyond visual. This will be accomplished through a systematic literature review and case studies on applications that accentuate and diversify the user experience. Through the selection of examples, the study discusses how devices and/or applications favor experiences beyond just visual through output and input systems. The results and discussion note the particularities of this media and aspects for the feasibility of future applications. The main contribution of the study is to elucidate and illustrate the multisensory experiences that involve the use of the kinesthetic system (voice and body) and the haptic system (smell and taste).

Designed Objects

| 13:10-13:55 | **PARALLEL SESSIONS** |

Role of Design in Sustaining the Handloom Practice of Assam

Umme Hani, Indian Institute of Technology Guwahati, India
Amarendra Kumar Das

Handloom weaving occupies a very important position in the land of Assam, a Northeastern state of India. It is mostly accomplished as a home-based industry. Hand-woven textile is practiced here for both commercial as well as domestic purposes. Weavers in this place have been weaving different types of wild silks, which are naturally available to them namely Muga, Mulberry, and Eri. Eri is one of the sturdiest silk among them. The main emphasis of this study is to recognise how design and innovation can help in sustaining the practice of handloom and textile. The main apprehension raised here is regarding the inability of the weaver's community in fulfilling the market need and demand towards the supply of hand-woven fabrics because of the competition and commercialisation. It has been realised through certain field studies that there is an appropriate need for inclusive development in the handloom sector of Assam so that the weavers can perceive a better future in terms of livelihood so that they can continue this practice and earn commercial recognition. This is a research-based study, which will define the necessity for design and innovation in the handloom sector of Assam that can support in sustaining this craft practice.

Design in Society

Design of Interactive Urban Furniture Adapted to Climate Change Using Intelligent Materials

José Molina Gálvez
Miguel Ángel Pardo Vicente
Lucía Rodríguez Parada

Currently, urban furniture is not designed practically to be used in unfavorable weather conditions, such as wind or rain. Even the vast majority of these products are not used at all times of the year. For example, a large part of the furniture destined for citizens is located in places where no leftovers are generated in times of heat. With this work we make a conceptual proposal whose main function is to offer seating and rest to the passer-by in any meteorological situation. At the same time, another objective is to create a multifunctional space for rest, achieving greater use of this location in the urban environment. According to the research carried out, the problem reveals a series of fundamental requirements such as protection against climate change, ergonomics, and integration with urban space. This innovation is possible thanks to the creation of a structure capable of adapting to the weather conditions. To this end, new sources of intelligent materials have been investigated that allow the regulation of the light path and have been applied to this new urban concept. In turn, the design obtained, thanks to its geometry, allows it to be used in multiple ways and postures that facilitates social interaction.

Design in Society, Designed Objects, Architectonic, Spatial, and Environmental Design

Te Kukukne Screen

Kevin Sweet, Victoria University, New Zealand
Tonya Sweet, Victoria University, New Zealand
David Hakaraia, Victoria University of Wellington, New Zealand

The Te Kukune Screen is an interior partition recently created for a multi-use teaching design studio in Victoria University of Wellington's Faculty of Architecture and Design in Wellington, New Zealand. It is a collaborative, multi-disciplinary effort between the School of Design and the School of Architecture. The design intervention was conceived as an exemplification of contemporary design education and practice. The screen, constructed of folded brightly colored aluminum panels, reflects the spirit of innovation and emphasis on digital design tools and processes that are taught within the Schools of Architecture and Design. Conceptually, the screen intends to promote cultural inclusivity and cross-disciplinarity within the learning environment through the perforated pattern that is legible across the panels. The pattern, inspired by the local indigenous culture, expresses the spark and extension of energy and potentiality that occurs in the intersection of two ideas or entities. The screen utilizes parametric design tools and digital fabrication techniques to exemplify an iterative, practice-based design approach. It is a physical result of a contemporary design process that serves as a teaching tool for all aspects of a design process – inclusive of successes and areas for future improvement.

Design Education

Moral Esthetics and Ethics of Design: Communication Design with a Purpose

Paul Booth, Fort Lewis College, USA

As a graphic design educator, I believe we should teach our students to be responsible and ethical graphic designers. Design communication is a form of power. The power of design communication is seen in the re-structuring of language, in the hierarchy of information, in communicating a unique benefit, in simplifying and aesthetically polishing information, or even polarizing information. In graphic design education, students need to learn that design communication is powerful; and graphic design educators need to teach the ethical and moral side of graphic communication, and talk to students about the effects of graphic communications on society. Every day, people are subjected to design communications for thousands of products: cigarettes, "junk" food, diet pills, prescription medications, physical enhancements, and ultimately the promotion of unrealistic and often unhealthy lifestyles. Graphic designers, however, could and should think and act more responsibly in the communications they produce. In this study, I will show examples of how graphic design educators can teach their students to be responsible, ethical, and moral graphic designers.

Design Education, Design in Society

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Tuesday, 6 March	
13:10-13:55	**PARALLEL SESSIONS**

Five Urban Architectural Designing Principles for Sustainable Urban Development: Based on the Redevelopment Proposal and Plan for Apgujeong-dong Hyundai Apartment Houses in Seoul, Korea

Myung Yang, Kookmin University, South Korea
SeokJae Song, Kookmin University, South Korea

Minwoo Jang, Kookmin University, South Korea

In 1987, the concept of sustainable development appeared in the WCED's "Our Common Future" for the first time in response to sustainability issues such as resource depletion and environmental pollution. In this study, theories, literature, and precedent studies regarding sustainable cities since the 1970s will be considered. The representation method of domestic and overseas case analysis are classified to understand the limitations of existing urban development methods. Such urban planning theories are being pursued in the forms of urban villages, compact cities, and urban regeneration movements based on those of the UK and Europe. Based on this understanding, five sustainable urban architectural designing principles will be established. Furthermore, the possibility of the five design principles will be discovered through the analysis of the redevelopment proposal and plan for Apgujeong-dong Hyundai Apartment Houses in Seoul, Korea. Results indicate that it is difficult to determine whether small-scale design element techniques of urban planning theory can appropriately respond to changes in society, economy, passage of time, and environment. Applying one-off urban development techniques that do not fully appreciate the nature of the past and future cannot maintain the constancy and transience of a city.

Design in Society, Architectonic, Spatial, and Environmental Design

Possibility of Urbanization of Large-sized Refugee Camps Following the Relocation of Refugees

Jeong Min Kim, Kookmin University, South Korea
SeokJae Song, Kookmin University, South Korea

Myung Yang, Kookmin University, South Korea

According to the statistics released by the UN Refugee Agency, the impact of civil wars, economic depression, rapid population growth, and natural disasters in third world countries throughout the world results in a large number of refugees. This study reviews the potential of whether or not the establishment process of normal refugee camps can be defined as urbanization. Surveys are conducted by evaluating the typology and development process of the Zaatari camp in Jordan and Bourj Hammoud in Lebanon which city was urbanised among the refugee camps in terms of permanent livability. It was difficult to classify a refugee camp established under the UNHCR's guideline as a city in terms of urban studies due to its strong undertones and characteristics as an asylum and temporary settlement. Through the analysis of a refugee camp with an urban unit population density in terms of size among refugee camps, it is possible to distinguish from the spatial and organizational characteristics of a small camp unit. Results indicate that a new design and alternative space of an early camp module could be determined by considering the possibility of converting a large-scale refugee camp into a city.

Architectonic, Spatial, and Environmental Design, 2018 Special Focus: No Boundaries Design

Possibility of Multi-dimensional Urban Planning in Consideration of Urban Expandability

Surin Kim, Kookmin University, South Korea
Yong Seong Kim, Kookmin University, South Korea

Jeong Min Kim, Kookmin University, South Korea

There is an increasing demand of land use due to continued growth and densification of major cities in the world. In order to evenly distribute the concentrated population within the limited scale of hub cities, this paper reviews the concept of "multi-dimensional urban planning" emerged in order to renew non-operating industrial facilities and identify and utilize new land resources. By evaluating multi-level streets, hanging gardens, and skyways, the classification and cases of multi-dimensional urban planning types will be researched through the theoretical consideration of multi-dimensional cities. Results indicate that multi-dimensional urban planning measures in Korea, as well as the improvement and utilization method of such plans are identified. The previous horizontal urban planning and designing approach entails problems and limitations such as traffic congestion, indiscriminate construction order, and safety risks while walking. On the other hand, multi-dimensional urban planning may solve the issue of limited land and vitalize the city. According to the domestic legislation, the overlapping designation is currently available for two or more urban planning facilities due to multi-dimensional urban planning.

Design in Society, Architectonic, Spatial, and Environmental Design

Application of the Internet of Things Technologies for the Establishment of the Smart City

Minwoo Jang, Kookmin University, South Korea
Yong Seong Kim, Kookmin University, South Korea

Surin Kim, Kookmin University, South Korea

This study identifies the possibility of applying "IoT technologies" as the measure to respond to two key objectives: the development of future urban architecture according to the Fourth Industrial Revolution and the successful establishment of a Smart City. Six fields of technology, including artificial intelligence, robot engineering, Internet of Things (IoT), automated guided vehicle, 3D printing, and nanotechnology are becoming the core of revolution due to the convergence of IT technologies through the Fourth Industrial Revolution. IoT user awareness technology is distinguished according to the method of biometric data recognition and communications, and a suitable technique is applied depending on the purpose of the service. While biometric data recognition has the highest accuracy among the methods of IoT user awareness, it also has downside in that it is difficult to use in various fields for it requires user behavior during the recognition process. On the contrary, the communication method does not require user's direct behavior. The current study found that IoT technology is suitable for interaction design as the technology helps with conserving energy in smart city and ecologically sustainable environments.

Architectonic, Spatial, and Environmental Design

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Tuesday, 6 March	
13:10-13:55	**PARALLEL SESSIONS**

Personal Brand as a Key of Reducing a Gap between Expected and Actual Results in Design Practice: A Pilot Study Based on a Hospital Design

Jinoh Park, North Carolina State University, USA
Damhui Kim, Doctor, South Korea
Traci Rider, North Carolina State University, USA

In design practice, clients request designers' proposals enhancing their service. But the proposals might not guarantee the initial intentions of clients because it is not for execution but for supplementation, and so there are gaps between expected and actual results in design practice. This research as a pilot study introduces people to an aesthetic hospital design process from the preparation for launching to the status after a year in the Aesthetic Hospital Market, Korea. During the process, the hospital has been analyzed by categorizing it into the design and operation parts in the planning phase, finding overlapped parts of them after opening a year, and interpreting the roles of concept of design, personal brand of service provider, and supplementation of each other in the whole process with models of brand essence and strategic brand analysis. As a result, the hospital requires a personal brand of service provider not for fizzling out of outputs in design but for supplementing a sustainable brand in an operation. According to the result, it proposes designers bring and support a personal brand of client, which can embrace the concept of design output, rather than inspiring the client with the taste of the designers or just a trend without considering the capacity of client.

Design Management and Professional Practice

Mass Transportation Options for a Developing Refugee Camp: Focusing on the Zaatari Camp as a Seed for Future Urban Growth

Joao Castro, Miami University, USA

By taking into account urban growth in former refugee camps and in multiple sites across the Middle East, the study of such precedents holds a purpose of scheming an anticipated proposal for transportation and urban development strategies for the Malfraq Governorate in the northeastern portions of Jordan. As an inspiration for the rational essence of the need for such study, the Jordanian city of Irbid (currently around 500,000 residents) holds a special importance in the scope of work due to its original establishment as a primarily Palestinian refugee camp. With the rapid expansion of the Zaatari Refugee Camp since its establishment in 2011 and the economical possibilities it has been generating while gradually establishing its permanence, this study creates a customized formal urban transportation plan for the area, through analysis and implementation of existing models and standards by retrofitting the area's landscape. This investigation hopes to inspire professionals and academics by sharing the needs and aspirations of the Malfraq region and educating individuals about the topic of urban expansion and transportation considering the western ideals held by Jordanians and Syrian refugees that inhabit the locality.

2018 Special Focus: No Boundaries Design

Designing Effective Arguments in Professional Ethics

David Schmidt, Fairfield University, USA

As professionals, designers are committed to high ethical standards in all dimensions of their work. The ability to make sound ethical arguments, supporting ethical judgments with good reasons, is a vital element of professional ethics. Yet, many designers are unsure of what constitutes an effective ethical argument or how to communicate more clearly about ethics issues in the profession. Designers need to develop a keener understanding of how they reason and communicate about the ethics issues they encounter in their work. This poster will address this need by approaching ethical argument as a question of design. Namely, it will address what constitutes a good design for arguments about issues of professional ethics? It will show that there is more than one way to construct ethical arguments and that good design principles can guide us in the construction of better arguments. To explore this question in a concrete way, this poster will display a "candid layout" model of practical reasoning provided by philosopher Stephen Toulmin. His model provides a clear picture of how various reasons function together to support a claim. By proposing his candid layout as an improvement over a traditional argument model, the syllogism, Toulmin was advocating for one kind of argument design over another. This example of Toulmin's model will promote discussions about how designers can improve the design of their own arguments in professional ethics.

Design Management and Professional Practice

Geometries of the Sacred and Profane in Lewerentz's St. Peters

Nathan Matteson, DePaul University, USA

Sigurd Lewerentz's architecture comprises of relatively few buildings though it spans several decades. His work, encompassing stylistic maneuvers from the neo-classical to the newly brutal, is lauded for its formal approaches to spatial organization and composition. Widely regarded as a peerless example of poetic materiality through its unique and authentic use of uncut brick, St. Peters in Klippan is held by some to be the culmination of this master architect's lifelong exploration of form. This study proposes a new reading and geometric analysis of Lewerentz's St. Peters. Preliminary research has unearthed clues that suggest deep connections among the proportions with the building plan, a modular grid system within it, and musical proportions (common in architecture since Vitruvius). It is further speculated that the interplay between brick and mortar—the finite, modular sameness of the uncut brick against the ever-changing and infinitesimal mortar—acts as a metaphor connecting the humility of the building's form to the vastness of its purpose. This new lens on St. Peters will impact our current appraisal of this and other "brutalist" structures, and offer new insights into the beauty hidden within them.

Architectonic, Spatial, and Environmental Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

| 13:10-13:55 | **PARALLEL SESSIONS** |

Skin d.e.e.p., Digital Ephemeral Epidermal Patterns: Digitally Fabricated Aesthetic Enhancements and Modifications of the Body

Margarita Benitez, Kent State University, USA

In this poster we explore digitally fabricated aesthetic enhancements and modifications of the body which we use to explore cultural implications of the intersection of technology and biologically inspired art/design. We will address how we utilize speculative works through our bio-inspired digitally fabricated designs via one of our most recent projects: skin d.e.e.p. In our work skin d.e.e.p., we explore these ideas via augmentation through wearables and biomimetic expressions on the skin through digitally fabricated prosthetics. We mimic the patterns and textures of snakeskin via ephemeral impressions onto human skin.Taking inspiration from shedding snakeskin, we shed the outer layer by removing the 3D-printed prosthesis. The epidermis retains the negative imprint of the prosthetic mimicking the look of serpent skin. The dermis reestablishes the smooth form of the human skin as it heals itself within the hour, erasing the ephemeral imprint, symbolically representing rebirth and renewal. Investigating the ephemeral aesthetic of textured patterns on human skin will not by any means provide a solution to an engineering problem, yet acts as a larger philosophical basis to conduct a discussion about the possibilities of blending bio-inspired designs.

Designed Objects

Designing with the Territory: Improving the Bike Lane Network and Enhancing the Heritage of Almese

Simone Valentino Piscopiello, Polytechnic University of Turin, Italy

Elena Comino

Laura Dominici, Polytechnic University of Turin, Italy

Promoting sustainable mobility is an important issue being discussed at the Municipality of Almese. The safety of bikers and landscape value are the main components of this case study. In recent years increasing problems of pollution's effects on public health have moved the attention of local authorities to innovative strategies to promote low-carbon mobility. Bicycles represent an alternative and complementary vehicle to private cars, so it's important to focus attention on facilities and services design around cycling. In this paper a project is introduced which proposes a bike lane network as a sustainable option of urban and suburban mobility, representing an important tool to enhance the landscape and cultural heritage of the Susa Valley. Working with the Municipality of Almese (Turin, Italy), this paper enhances "La Via Francigena," an important historical and religious pilgrimage route, improving and redesigning the existing cycle tracks. The main aim is to answer local people's needs about daily travelling, promoting the use of bicycles, and also proposing a sustainable choice for tourist's journeys. Through the context analysis, the user-centred design, and the research about innovative and sustainable materials for road pavement and public lighting, we show how the proposal will impact this territory. We also want to demonstrate how we can improve accessibility and enhance local heritage.

Architectonic, Spatial, and Environmental Design

Think Tank Soldiers in the Battle for Tax Reform: Visualizing Policy Influences

Jes Sokolowski, University of Oregon, USA

Using network visualizations, this poster maps the intricate financial relationships between U.S. think tank organizations engaging in tax policy research. The coalescence of data and design principles, aims to better convey the findings of our study. Think Tank Soldiers in the Battle for Tax Reform is a study documenting the partisan differences in U.S. think tanks and associated advocacy organizations actively engaging in tax policy. By leveraging the elements and principles of design, over 400 financial transactions between 178 organizations have been depicted in one visualization. Color, line, emphasis, and proportion, played an integral role in the quest to make a simultaneously thorough and accessible data visualization.

Design in Society

| Room 1 | **Virtual Lightning Talks** |

Changed Management: Design as a Catalyst for Growth

Max Kahn, Drexel University, USA

Changed Management is a new framework that explores the effects of design on organizations and the cognitive effects of design on behavior change. There is a staggering gap between the actual and perceived value of design and this paper explores why in a 2013 study, 73% of CEOs didn't trust their creative teams to deliver measurable results while a Design Value Index study conducted between 2005-2015 discovered that design-centered organizations performed 228% better than their colleagues on the S&P 500 over a ten-year period. By means of interdisciplinary research, this paper synthesizes over twenty design frameworks to create nine key principles for designing change. This paper is facilitated around the nine principles of the Changed Management framework and allows participants to learn about the intersection of design and business.

Design Management and Professional Practice

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

13:10-13:55	**PARALLEL SESSIONS**

Design Challenges in Seamless Integration between Advanced Technologies and Traditional Weaving Technique for Interactive Textiles
Lan Ge, Hong Kong Polytechnic University, Hong Kong
Significant potential of smart textiles and clothing has been well acknowledged by the industry and researchers for the past few decades. Electronic components and functional fibers have been integrated to bring new functionality and design values to traditional textiles. Weaving, one of the traditional textile fabrication methods, creates great impact on overall aesthetics, performance, and functionality of traditional textiles by directly integrating functional fibers into the material. There is huge potential for innovation in woven structure design for smart textiles. However, the investigation in complex woven structures is still inadequate in existing research for interactive illuminative textiles woven with polymeric optical fiber (POF). This paper will demonstrate the researcher's innovative methods to integrate traditional weaving technique with advanced technologies such as electronic engineering and laser engraving to enhance performance of interactive illuminative textiles for different applications. Weaving factors including fiber content, woven structure, weft, and warp density will affect the functionality of smart textiles individually and collectively. Such weaving parameters will be explored utilizing Jacquard loom and Dobby loom. The contribution to new knowledge in this study will help to provide researchers and practitioners with innovative approaches to incorporate weaving technique for smart textile design process.
2018 Special Focus: No Boundaries Design

Architextiles: Design In Its Multi-functional State
Asna Mubashra, Lahore College of Women University, India
Clothing and shelter are among the basic human needs which have been developing in every respect since human history. The evolutionary process of each has not grown independent to each other. Architextiles is a multidisciplinary concept that combines the creative approach, materials, and structures inherent to the discipline of architecture with the same of discipline of textiles to explore the elements of cross fertilization of both. The paper proposes a review of textile and architectural design to find connecting points of architecture's relationship with textiles. The study will analyze the fusion of textile design in architectural design by in depth analysis of creative approach, materials, and structures. The exploration is based upon the theoretical influence that Gottfried Semper specified in his writings on the topic of relationship in textiles and architecture. It will be an attempt to investigate the similarities found in the design elements of textiles and architecture. Amalgamation of traditional textile design elements with dwelling designs will be explored with the aim to bring into limelight the conversion point in the orientation of design in multifunctional state.
Designed Objects

Design Studio: Users' Experience
Reem Sultan, University of Bahrain, Bahrain
Architectural and design education have the advantage of encompassing the culture of the design studio, with the studio model taking on a significant part of the life of the architectural student. Using a design studio, in the context of learning, the ways by which the physical properties of the studio influence behaviours and attitudes towards learning and how architects are shaped can be investigated. There are three popular ideas on how an environment in interior design and architecture can be perceived (Brooker and Weinthal, 2013), namely probabilistic functionalism by Egon Brunswik and the "lens model," with affordances proposed by James J. Gibson, and lastly collative properties by Daniel Berlyne. Learning from these ideas of precedence, a framework has been developed, which considers and examines the interaction between space and users; this is achieved through seeking to establish the experiences and perceptions of the users of the design studio, as well as through the adoption of multidisciplinary qualitative approaches, which provide a holistic-centred capture. Through customer journey mapping (CJM) and the interpretations and observations of drawings applied in alignment with other methods experiences are recorded, with the data then interpreted through different lenses, i.e. interior designer, tutor, and researcher. Importance is directed towards learning and acknowledging that one design cannot fit different locations and contexts. The findings from the investigation have been disseminated in the form of design ideas to benefit different universities, tutors, and other disciplines that may be seeking to adapt the studio model.
Design Education

Who Sits at the Table and Who Tells the Story?: Thoughts for Spatial Practitioners
Cristina Cerulli, The University of Sheffield, USA
Increasingly, spatial practice, which only partially overlaps with architecture, involves the understanding of complex interactions between people, places, materials, economies, and infrastructures. Decision-making shapes the city at all levels, from city governments and planners constructing large-scale spatial plans, through developers and designers proposing new projects, to the choices made by those using and performing the city from day-to-day. Some processes of decision-making which shape the built environment are enshrined in statutes and embedded in long-standing practices with clear roles, other processes may be "one-off" and not fully planned, requiring new processes, and bringing together those who would not usually work together, whilst some are developed contingently, reacting to conditions that are changing or seen as temporary. This paper will explore the new civic literacies required to navigate the complexities of this city making landscape and the currencies that drive it and will do so through the lens of pedagogical and practice projects.
Design Education, Design in Society, Design Management and Professional Practice, Architectonic, Spatial, and Environmental Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 13:10-13:55 | **PARALLEL SESSIONS** |

Sustainable Expectations: An Inside Look toward the Ethos of Sustainable Design in the Interior Design Profession

Charles Ford, Samford University, USA
Amanda Gale
Stephanie Sickler
Ahinee Amamoo

Integrating sustainable design into education has become a normative standard. A students' awareness and understanding of sustainable design is an expectation for attaining accreditation of interior design programs (Stieg, 2006). Such accrediting bodies have clearly communicated the design educators' responsibilities in the preparation of future interior designers entering into the workforce (Gulwadi, 2009). Yet, there exists a lack of information concerning the value of sustainability achievements from the employers' perspectives. It is therefore critical to determine the practitioner's ethos concerning sustainable design practices and achieved credentials of entry-level interior designers. This research investigates employers' value and expectations toward sustainable design education of emerging interior design professionals and those seeking internship is void. It is critical to determine practitioner climate regarding sustainability in order to best prepare students for entry level design positions. An internet-based questionnaire was sent to the American Society of Interior Designers (ASID) members of the State of Alabama. The questionnaire included a three-part survey: demographic, sustainability awareness, and ecological worldview. Sustainability awareness was a means of measurement of awareness and involvement among design practitioners and firms in sustainable practices. The ecology section utilized the New Ecological Paradigm (NEP) scale. The study found no statistically significant difference in one's ecological worldview and sustainable awareness. Descriptive statistical analysis revealed ASID members value LEED (Leadership in Energy and Environmental Design) credentialing; yet, few practitioners hold the LEED credentials of LEED Accredited Professional (AP) or LEED Green Associate.

Design Education

Impact of the Physical Work Environment on Organizational and Employee Outcomes

Paul Kegel, Full Sail University, USA

The way people work has changed considerably over the past ten to fifteen years due to rapid advances in technology, globalization, and changes in workforce demographics. In addition, knowledge work today is more complex and time pressured. Unfortunately, the physical work environment has not kept up with these new ways of working. There is a growing body of academic work that suggests that workplace design can affect organizational performance and the health and wellbeing of the people who will occupy the environment. Research shows that the physical work environment can have an impact of employee performance, engagement, innovation, creativity, communication, employee retention, and organizational commitment. This current study provides an extensive review of the available academic literature regarding the impact of the physical work environment on organizations and their employees. This research is important because it can help leaders maximize the potential of their organizations.

Design in Society

Exploring Multi-sensory Designed Architectural Spaces

Sara Ebrahem, Arab Academy for Science, Technology & Maritime Transport, Egypt
Sara Alsaadani
Zeyad El Sayad
Ahmed Elseragy

Creating a space that positively affects its users and evokes an emotional experience is often one of the aims of architectural designers. Using multi-sensory design approaches that stimulate all five human senses, spaces may be designed to induce an emotional response. However, little is known about what procedures must be followed to create a multi-sensory design. This work therefore analyses spaces from two selected case studies; the Jewish Museum in Berlin, Germany and the Lourinhr Sea Bathing Facility of Lisbon, Portugal, to understand how architects may awaken most or all of the five senses. This analysis may further help to understand the tools available at architects' disposal to create multi-sensory design, and how these tools may be used to construct the user's spatial experience. The case study analysis leads to an extrapolation of a series of guidelines navigating the creation of multi-sensory design. This set of guidelines may assist architects in the creation of inclusive environmental for a varied typology of users.

Design in Society

Breaking Down Barriers That Discourage the Use of Design Studio Pedagogical Principles and Practices in Broader Contexts

Iain M. Robertson, University of Washington, USA

Rittel and Webber's term "wicked problems" accurately describes the complex, ill-defined, and interrelated problems faced by contemporary societies. A combination of skills, knowledge, and appropriate attitudes of mind are necessary to address these problems. While higher education focuses heavily on developing and imparting STEM (science technology engineering maths) skills and knowledge, it pays little attention to developing students' attitudes of mind. This paper proposes that, because all design problems are wicked, the attitudes of mind that students develop in design studios to solve spatial design problems are uniquely suited to tackling wicked problems. It describes how studio pedagogical methods have been adapted by the author into simple creativity exercises. It discusses the exercises' underlying pedagogical design principles and illustrates their use by students, from disciplines across and beyond the academy, to develop fluid, designerly attitudes of mind. The author proposes that design disciplines should be more explicit about explaining their design pedagogies and describing the unique contributions that these can make to cultivating the fluid, designerly attitudes of mind suitable for addressing wicked problems.

Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 13:10-13:55 | **PARALLEL SESSIONS** |

Refined Sketch Search
Camilo Angulo, University of Bogotá Jorge Tadeo Lozano, Colombia

Sketches are a particular feature of product design activity that are modeled differently from the drawings of any other professional domain (Meneses and Lawson, 2006). They are characterized by being intense, fast, and usually done by hand, raised, either on a napkin, a sketchbook, the board, a tablet, or an interactive monitor. From the point of view of education in design, I am interested in understanding the way students transform a rough sketch into a refined one, all this during the work in class. To achieve this, as part of my research in doctoral studies, I have designed a case study at a university in Colombia where I have interacted with eighteen undergraduate students in design. The method I used to obtain the information was a study of the work of each student from four dimensions: concept, metacognition, language, and motivation. At this moment, I am in the stage of analyzing all the data recovered with the different instruments.

Design Education

Design on the Frontier: Visualizing Historical Arguments
Camila Afanador-Llach, Florida Atlantic University, USA

Visual representations of arguments based on historical events have the potential to shed light on contemporary issues. The graphic formats to structure such representations can include maps, data visualizations, and interactive archives. With these in mind, graphic design outside of a client-based structure can be a practice at the intersection of humanistic inquiry, visual communication, and interaction design. This paper includes a series of projects investigating the intersection between places, history, and identity. Engaging with databases and existing archives, these explorations seek to make visible the argument that a Hispanic identity has been part of the United States since long before the massive immigration of the last decades. In this type of engagement with historical narratives, designers can pursue more inclusive frameworks and decentralized ways of telling our stories. At the core of this inquiry is an approach and interest in the digital humanities where design is not seen as just as a technique, but as an intellectual method to frame questions. Representing an argument in a visual format is then an act to bridge design practices with the humanities in the hope to establish methodologies for collaborative interdisciplinary endeavors.

Visual Design

Synaesthetic Scape versus Sound Space: Two Synaesthetic Scape Examples in Terms of Methodology and Findings
Maha Al Ugaily, The University of Sheffield, UK

This study combines synaesthesia as a cross-sensory model with the use of virtual scapes in architectural design practice, where users' sensory associations, perceptions, and emotions are blended. It thus explores possibilities for how architects might design in a synaesthetic way. The aim is to contribute to the design palette of architecture by developing the expressive values of design tools. The findings will be relevant to the design of virtual scapes and the design process in architecture more generally. The study is comparing two virtual scapes (synaesthetic scape and sound space) each of these synaesthetic scape examples was tested in two accumulated stages which differed in terms of the methods used. In stage one, the quantitative method, the use of facial recognition software and electrodermal skin conductance devise both are used to detect emotions. In stage two, the qualitative method, interviews and a focus group with participants were used. The findings showed the differences in the design qualities of (color, light, and texture (materials)) of each space and how they were tuned in respect to the participant's input through the experiments.

Architectonic, Spatial, and Environmental Design

Hacker Design: Graphical User Interface Customization on iOS Mobile Devices by Jailbreaking
Danilo Braga, Abril Media, Brazil
Priscila Arantes

The graphical user interface (GUI) is one of the reasons personal computers have became popular since the late 1990s. However, the history of GUI customization isn't very consistent. Depending on the system, customization options vary from developers leaving only the accent system color choice in the hands of users to supporting full theming of an operating system interface. In the Macintosh, little to no customizations were permitted by default. That resistance from Apple didn't stop a community of hackers and modders to design, develop, and distribute customization tweaks since the early versions of the system. With the iPhone, the lack of control of the appearance of the most intimate object in our lives, the smartphone, provoked an ever-growing community of hackers eager to break barriers to obtain control over how our phones look and feel on the software side. Our paper shows the link among the hacker culture of exploration and stretching computer system capabilities, the ethics of distribution, and device ownership to the graphical user interface customizations found on the jailbreak community. Analysing some of the key tweaks available, we develop a prototype with the objective of designing an iOS GUI alternative using only tweaks and tools found on the jailbreak forums and blogs to provoke some questions, such as how far can we customize an iOS device interface? How does that connect to the hacker culture? In which ways do modders provide tools for the user adapt an generic GUI to his needs and lifestyle?

2018 Special Focus: No Boundaries Design

| 13:10-13:55 | **PARALLEL SESSIONS** |

Does It Matter?: Value of Reporting Both Successes and Failures of "Design Thinking" in Higher Education
Gnanaharsha Beligatamulla

Today design thinking (DT) becomes a buzz word in non-design business and educational environments, considering its power of innovation for any problem or challenge. However, the definitions given to design thinking seem to be varied in each context of use. Lots of universities started teaching and using design thinking. For example, a recent web survey has shown that most of the universities in Australia at least have a DT course unit. Although, the writing about experiences with design thinking activities is less in the higher education sector. This paper proposes the proposition that writing is essential to the future of design thinking as the idea of DT practice and teaching in educational contexts can contribute to the global level understanding of DT. Further, this paper will discuss the different circumstances in which DT is applied, based on the literature available from selected universities. Some of the educational disciplines, faculties, and individual staff contributions to the body of knowledge in design thinking will be discussed concerning different experiences with DT. Also, the diverse definitions and processes that some university course units and research centres use extensively will be revealed. Finally, the need for a deeper investigation into DT in the higher education will be emphasized.

Design Education

Aging in Place: Real Stories of the Elderly in the Bronx, Told through Words and Images
David Schwittek, Lehman College, USA

This student-driven artists' book project combines sociological, visual design, and narrative strategies to deepen understanding about ageism and reduce its impact across generations, with the goal of providing a multimodal voice to those aging in the Bronx, NY. Ageism is associated with poor health and social outcomes, such as depression and isolation, among adults over sixty-five, workforce shortages in fields of gerontology and geriatrics, which contribute to these poor outcomes, and dread among younger individuals facing an unappealing future. Participants consisted of twenty-five social work and eighteen fine arts undergraduates enrolled at CUNY's Lehman College campus located in the Bronx, and twenty-five adults over sixty-five. Data collection consisted of interviews, also documented in photographs, later interpreted as design compositions, culminating in an artists' book. Students exhibited results locally, extending the reach of their work in an advocacy action. A mixed-methods pre- and post-test captured student reflections and reactions. Study findings highlighted the specific challenges of aging in place, and the benefits of an interdisciplinary approach, combining topics such as sociology, agism, graphic design, and visual storytelling to creatively document the everyday lives of the elderly as they navigate their rapidly changing neighborhoods.

Design in Society, Visual Design

Housing Challenges in a Time of Crisis: The Case of Cyprus
Andreas Savvides

This paper examines both the policy framework in which social housing is created to accommodate increased demand exacerbated by two groups and it also references appropriate precedents as a primer for the design proposals illustrated. The physical planning challenges involved in this type of research invariably looks at the design and planning of the housing units and clusters, as well as the collective and communal areas between building masses that accommodate public life and strengthen community cohesion. Moreover, these design proposals attempt to illustrate how the provision of social housing for these target groups may be accommodated within and benefit the existing communities into which they are placed so as to promote feelings of shared and communal ownership, maintenance and appropriation, and rigorous use of public space in a way that strengthens social networks among the transient population and between them and the local communities that host them.

Architectonic, Spatial, and Environmental Design

Blurred Lines: The Interior in/and/for the City
Rebekah Radtke,
Patrick Lee Lucas, University of Kentucky, USA

In considering interiors at the scale of the city, we suggest that interior designers can, and perhaps should, help frame design practices at the scale of the urban environment. We expand beyond the limitations imposed by others for both discipline and profession and serve as active catalysts for change. We bring community-based research and teaching, innately collaborative and multidisciplinary human-centered processes, the ability to address existing and everyday buildings in context, and an intimacy of scale and experience with materiality to produce evocative, temporal, and suggestive spaces and places. We examine the very urban fabric so eloquently defined by Jane Jacobs, a series of urban interiors and streetscapes, the ideas of connectivity and mobility, and the call to be both sustainable and global. Informed by a robust research agenda and teaching philosophy, we explore interiors connected to community. We leverage this work to help others understand that interior design goes far beyond picking paint colors, specifying furnishings, and selecting carpet. What results is an interior design for the streetscape and the urban interior, not bound by architecture, but connected to it, expanding Lynch's "Image of the City" by adding interior dimensions to it. This interiority creates a more vibrant infrastructure and framework for urban space, underlining the foundation of interior design to address the needs of people. By expanding the boundaries of our work to the city, we demonstrate pathways for exploration to expand interior spaces and design processes at the scale of the city.

Design Education

Exploratory Design Studio: Generating through Mapping
Madelein Stoffberg

Traditionally, spatial education studios follow a staged process of analyses, syntheses, and evaluation. However, there is a shift toward a transformative process that combines function, behaviour, and structure. This more lateral approach is crucial to incorporate various influential factors throughout the design process. This paper investigates alternative design methods, moving from site analyses and precedent studies to contextual mapping and generation of guiding design principles. A case of four master students from the Namibia University of Science and Technology are compared to investigate this exploratory process. From the comparison, alternative design solutions are proposed to guide the first steps of the design process and generation of form.

Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

13:10-13:55	PARALLEL SESSIONS

| Room 2 | **Focused Discussions** |

Methods for Encouraging Risk-taking in Design Education
Lee Zelenak, DePaul University, USA
Heather Snyder-Quinn, DePaul University, USA
Nathan Matteson, DePaul University, USA

Much is made of the importance of innovation, experimentation, and failure: risk. Risk aversion is, in theory, biologically motivated by environmental dangers—more danger in the environment drives less risk taking in an organism. We propose that experimentation in design education is affected similarly, as a response to perceived risks within larger contexts. As the "real" world becomes more problematic (in the form of ubiquitous social media, consequent reduced privacy, economic volatility, etc.) there is anecdotal evidence of increasing risk aversion among design students with emphasis on final products and job preparation over the exploration of design process and the development of new knowledge and novel concepts. We propose that risk-taking in a student's design process is necessary and best fostered within systematic frameworks. This discussion will advance ideas that support student and faculty efforts to support systematic risk, including pedagogical models, curriculum structure and scaffolding, iterative methods, and consideration of digital and analog approaches. Our belief is that fostering healthy attitudes towards risk allows students to become adaptive thinkers and makers, focused on concepts rather than specific tools. Tolerance for experimentation and failure encourages the agility necessary to transition into and navigate the rapidly evolving design field. It results in students who are fearless.
Design Education

Curating/Creating Dialogue: Practical Exploration of Philosophical Principles as Basis for Islamic Creative Expression
Tamadher Alfahal, University of Bahrain, Bahrain
In traditional Islamic philosophy, "Sana'a" or art has always been associated with "I'lm" or knowledge. The notion of creativity in traditional Islam makes no distinction between the different types of creating; thus, there was no categorization of art as "fine art," "applied art," or "crafts." Rather, there were interchangeable and flexible use of terms. It could be argued that we understand it today as "inter-disciplinary." From this point, I investigate the possibility of an alternative approach to Islamic creative expression, to reconcile the traditional philosophy with contemporary design practice. Through multi-disciplinary collaborative sessions between artisans, designers, and scholars, I examine the potentials of creating design foundations that can be universally understood, but derived from Islamic concepts. This focused discussion offers an extended dialogue and hands-on explorations of a set of principles emerged from the abstract knowledge of traditional aesthetics. These principles are unity, remembrance, modesty, absence, balance, rhythm, and intimacy. In an open-studio set-up, the principles are introduced in a form of a tool-kit, from which the participants will choose a mix of design principles and elements to examine their validity in practice. The discussion outcomes can include different mediums like visual mapping, sketching of ideas, and modeling prototypes that explore an alternative way of communicating Islamic design principles. This can eventually take part in a curated exhibition as a way to disseminate knowledge of the research practice.
Design Education

| Room 3 | **Workshop** |

Designing for Interaction beyond the Screen: An Introduction to Physical Computing for Designers
LeAnne Wagner, DePaul University, USA
Jayson Margalus, DePaul University, USA
In the School of Design at DePaul University, we have been working on developing a new program called "Designing for Physical Technology." The program explores the intersection of design and physical technology and introduces accessible physical computing tools to students in order to create tangible interactions. Physical technology is a familiar discipline of study in majors like physics and computer science, but bringing it to a School of Design is a new approach, one that we feel is important in shaping our future environments, products, and systems. For students to be truly creative with these technologies and their applications, they must understand how they fundamentally work. The workshop introduces design educators to simple and accessible tools and pedagogy that will enable them to begin to incorporate physical technology in their classrooms. Attendees will start by creating simple paper circuit greeting card with copper tape and LEDs. The paper circuit exercise teaches basic circuit logic in the context of a familiar medium. Building on the knowledge of basic circuits, we then introduce micro-controllers. We'll work specifically with MakeyMakey controllers (https://makeymakey.com/), which will allow attendees to design novel physical interactions that control computer programs. Attendees will work in groups to reinforce constructionist pedagogies and create an embodied musical instrument. We will wrap up the workshop by sharing/testing the instruments and discussing strategies for classroom integration. Attendees will leave with links, slides, and hand-outs to enable integration in their classrooms.
Design Education

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Tuesday, 6 March

Room 4

Workshop
Journey Mapping, Ideation, and Prototyping in University Recruitment
Kristin Machac
Annie Rowell, Radford University, USA
Joan Dickinson, Radford University, USA
Kathleen Sullivan
Holly L. Cline

This workshop will explore a scalable model for recruiting and offer hands-on opportunities to practice design thinking methods that can be used in any recruitment setting. The facilitators will share examples from recent interviews conducted with a diverse population of students; participants will receive tools to practice interviewing techniques. Facilitators will share examples of journey maps, which outline the critical points of their students' paths to selecting a program. Participants will receive tools to assist with journey mapping and practice developing journey maps in pairs. The facilitators will share the insights gathered from journey mapping, which they used to create personas and conduct affinity clustering sessions. Participants will have a chance to complete personas in pairs and explore affinity clustering techniques as a group. Lastly, authors will share their creative matrix used to brainstorm new ideas for recruitment, and their final product – a collection of tools and ideas for recruiting to a diverse audience that have been prototyped and refined. Participants will work as a collective group to brainstorm ideas within a creative matrix and gather techniques for prototyping in their own environments.

Design Education, Design in Society

Room 5

Innovation Showcase

MotherWrap: A Simple Solution For Breastfeeding Women
Sugandha Gaur, MIT Institute of Design, India

Almost of all classes of females in India and in other countries find it extremely difficult to feed their babies in public areas, be it railways stations, airports, parks, theatres, etc. Not just that, they then either request that a fellow passenger or other females around them help to cover them up for a while or they try and find a corner or a secluded place. The question is – WHY? Why do they have to make so much effort to just feed a baby? This innovation showcase discusses designing a product with a business plan that could reach out to all those females across the globe who experience this discomfort whenever they feed their babies anywhere outside their homes. This design would be planned to launch during World Breasfeeding Week held from the 1st to 7th August every year. A solution that empowers mothers to carry and create a MotherWrap by themselves and stay happy and free. The idea has already been presented at World Design Summit, Montreal 2017. It was taken really well by the organizers and fellow presenters. This idea looks to reach maximum conferences/people/meetings and enable breastfeeding mothers of that city/country/area to be more independent and stress-free.

2018 Special Focus: No Boundaries Design

Folkventure: Revival of Indian Folk Art
Sugandha Gaur, MIT Institute of Design, India
Neha Saini, MIT Institute of Design, India

Ancient Indian folk painting and art styles have been passed down from generation to generation and are still practiced in different parts of India; however, some of these art forms are on the verge of extinction due to little exposure. The folk and tribal arts of India are very ethnic and simple, yet colorful and vibrant enough to speak volumes about the country's rich heritage. Madhubani, Warli, Gond, Kalamkari, and Patachitra are a few of these art forms. The mobile application we discuss in this innovation showcase is an Indian Folk Art learning mobile application for the urban masses who have an inclination and are keen on learning the folk art by undertaking basic virtual lessons at first. The art forms are being taught mostly in rural areas by the artists, which makes it not so feasible for the urban masses due to busy schedules, work culture, and geographical distance. Hence, this application will offer urban people folk art lessons on their finger tips. The product will also have registered folk art artists who practice these unique art forms in distant places. A potential learner once having finished with the virtual lessons and then keen on learning in person can get in touch with the concerned artists for a specific art form through the app which has all the necessary details to get in touch. There remains a future possibility for the survival of the art and the artists. A maximum share of earnings through app downloads and visits will be given to these registered artists.

Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

13:55-14:10	**Coffee Break**
14:10-15:50	**PARALLEL SESSIONS**

Room 1	**Fashion and Apparel Design**

User Experience and Interactive Textiles: A Textile Designer Perspective
Heeyoung Kim, The Hong Kong Polytechnic University, Hong Kong
Jeanne Tan
Anne Toomey
This research explores new user experience as a component of the textile design process for interactive textile designers using the collaborative workshop outputs. Interactive textiles can be created by integrating the value of tangible material property with embedded technology to provide users with aesthetic and comfort. However, the two disciplines of textile creation and technology embedding vary in practice and purpose. Textile designers solve problems by utilising materials and re-inventing their own techniques, and by making and designing textures and structures. By contrast, engineers solve problems by sharing their techniques to specific users. Integrating two specialisations with dissimilar processes is a challenge in smart textile production. Moreover, design research focusing on the relationship between user needs and interactive experience at the initial stage of smart textile design is currently lacking, and this research limitation can hinder meaningful interactive experience. This study compares user experience-related and material-led textile design processes. Then, findings are analysed using the collaborative workshop outputs of the Royal College of Art and Hong Kong Polytechnic University. Consequently, opportunities to integrate dissimilar design processes are explored. New user experience as a component of the textile design process may provide textile designers with rich skills, knowledge, and experience on material handling. Furthermore, new ways of perceiving smart textiles not only improve design-thinking aspects but also enhance the problem-solving component of material design.
Design Management and Professional Practice

Planning and Management Projects in Fashion Brands with Support of a Digital Platform: Sustainability in the Fashion Supply Chain
Madalena Pereira
Benilde Reis, University of Beira Interior, Portugal
Liliana Pina
Rui Miguel
Manuel Santos Silva
Paulo Rafael
This study makes a business-to-business online sourcing platform. The paper describes how this online device is worth it for the business of fashion players in contemporaneity, knowing the advantages in using this kind of platforms in a fashion supply chain. One digital platform project was developed - U.MAKE.ID, and pretend to help global brands and designers make their project management, of each product or garment, for after they can do the easy sourcing to find European manufacturers and suppliers by using the online platform. This kind of collaboration, besides facilitating sourcing, also facilitates communication between the fashion players, which are the intended users, previously mentioned. With this digital platform we have the support of how to plan each product or garment meticulously, and in what stage the brands and designers needed help from manufactures and suppliers by respecting deadlines for each other. The project methodology approach was used for the platform development, as an adaptation and consequently an interdisciplinary approach. This research project contributes to improved sourcing for the players in the fashion industry, globalizing the business of fashion by saving time and money, and at the same time contributing to increased sustainability in the fashion supply chain.
Design Management and Professional Practice

Room 2	**Health and Public Welfare in Design Practice**

Built Environment in Cancer Treatment Facilities: Anxiety and the Patient Experience
Sarah Michalec
Joan Dickinson, Radford University, USA
Kristin Machac
Kathleen Sullivan
Holly L. Cline
In 2016, over one million people were diagnosed with cancer and fourteen million people died in the United States. There is no doubt that cancer is a traumatic experience. Using design thinking, this study determines if the built environment in cancer-care facilities influences anxiety in patients and generates solutions to reduce stress. Eight stakeholders, including cancer survivors, patients, caregivers, and staff participated in three workshops generating ideas for oncology units. In workshop one, participants identified issues through journaling and experience diagramming that caused anxiety including amount of travel within the facility, small uncomfortable waiting rooms, smells, and institutional spaces. Using prioritizing strategies, participants concluded with, "How can we optimize a patient's time and movement within a facility?" This question informed subsequent workshops where participants brainstormed and prototyped ideas. The final solution optimized patient time and movement through the creation of individualized Patient Treatment Pods (PTP) that provided privacy, comfort, and minimal travel. Participants clustered the PTPs around a patient lounge, nutrition space, restroom, and nurse's station. Utilizing participant personal experiences along with design thinking led to an effective plan prototype that creates a cancer treatment facility to better suit patient needs while reducing anxiety.
Architectonic, Spatial, and Environmental Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 14:10-15:50 | **PARALLEL SESSIONS** |

Why Change What Still Works?

Mithra Zahedi, University of Montreal, Canada
Maxim Lamirande, University of Montreal, Canada

In many areas, design has proven to be a venerable force for businesses. All the while, as designers, we are challenged by the gap between our understanding of value and the financial understanding of what we create. Empathetically, we can understand how investing into something that remains profitable seems irrational: This logic often begs the question "Why change what still works?" A statement prevalent in the medical field (as user-testing and production are extremely costly). Most often, medical practitioners understand medically-assisted-devices as utilitarian. Thus, designers are solely tasked in optimizing performance-based qualities (lighter, stronger, faster), with minimal attention drawn to visual and emotional aspects of these products. This paper reports on studies –conducted over a year-long thesis redesigning a lower-limb orthosis– that indicates the relevance and necessity of integrating psychological, emotional, societal, and cultural user needs to improve existing low adoption-rates; as users opt for less visually obtrusive, but medically disadvantageous solutions. The concept which emerged answers "Why change what still works" by improving both the financial and design values, through results reinterpreted into product, and adaptable to other design challenges. Using today's technology, the resolution addresses human desirability and financial viability through satisfying the intangible needs of users.

Design Education

Neuro-considerate Design for Vulnerable Populations: Design with the Brain in Mind

Angela Bourne, Fanshawe College, Canada

This paper increases designers' knowledge about the influence the built environment can have on individuals with intellectual and developmental disabilities (IDD), specifically Autism Spectrum Disorders (ASD). In the past, the design of spaces have been designed for average users, but with the awareness of diverse user needs and equality there is a demand for designers to expand their knowledge. Many individuals with ASD/IDD are particularly sensitive to the surrounding environment. Evidence shows that the physical environment can positively contribute to one's ability to manage their environment. Data were gathered from over 100 subjects, including adults with ASD/IDD and their support workers. A mixed methods approach was used, including content analysis of fifteen housing communities, interviews with individuals with ASD/IDD and their support workers, behavior mapping of observation of individuals in various settings, picture preference in which participants identified aspects of images of spaces they preferred, and photo voice where each participant was given a disposable camera and asked to record their "day in the life." The investigator analyzed the data to identify the environmental features that impact the individuals and establishes a best practice model for designing space called a neuro-considerate design model.

Architectonic, Spatial, and Environmental Design

| Room 3 | **Aesthetics: Practice and Process** |

Parametric Sailing Yacht Exterior and Interior Design

Seval Özgel Felek, Turkey

Nautical vehicles are a combination of exterior styling and interior design. Exterior design formation creates space by means of external form and it also affects external form by partitioning and incoming interior spaces. Working should be done from inside to outside as well as from outside to inside. Interior design layouts should be made depending on the external filling and space positioning. Exterior design styling should be made depending on which typology wanted and also interior design layouts. The paper provides a model proposal for sailing yachts including exterior styling and interior design layouts with parameters. Most of the yacht geometry software has a three-dimensional view of the boat and showing it in different perspectives on the screen. This software allows the form to be perceived much better than the hand drawn plane. Computer aided software used in yacht design is especially useful for realizing engineering calculations. There are no software that digitally automates deck and superstructure modeling. At this stage designer it is to perform using different add-on hull form design. While this model is being created, it also has to accommodate the items of the yacht typology which is also designed. Parameters to be used when designing parametric sailing yachts have been determined. A model can be developed by setting the relation between these parameters. The work can be started by importing the yacht's hull into the program to be used and changing the design variables, it would be visualized.

2018 Special Focus: No Boundaries Design

Aesthetic Control Management in Urban Planning Practice: The Case of Turkey, Istanbul

Azadeh Rezafar, Istanbul Arel University, Turkey
Ş. Şence Türk, Turkey

Urban environmental aesthetic is a complex issue that a city should be evaluated beyond its physical characteristics. Since the urban environment is the central part of human living that can be changde with central decisions by the urban planning practice at the same time by personal and individual decisions, so aesthetic control management within city planning practice is important. In this paper aesthetic control management problems within urban planning process in the case of Istanbul, Turkey will be evaluated. For this evaluation the situations after the 2000s are selected. Neo-liberal economic and market-friendly policies that become more influential after these years, shows its effect in urban fabrics with large-scale commercial projects, which are not compatible with the existing urban silhouette. This paper reveals the problems in aesthetic control management system in this area. At the first, twenty professionals in urban design field will be interviewed. With these interviews the aesthetic problems in planning practice will be introduced. Then the roots of these problems inside the urban planning laws and regulations in the case of management system will be evaluated. Finally with these evaluations new recommendations in aesthetic control management will be developed.

Design Management and Professional Practice

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March

Contemporary Interpretations of Spatial Identity in Design Education
Anna Efstathiou, University of Nicosia, Cyprus
This paper focuses on a research that was undertaken by the author in relation to design projects of interior design students in the University of Nicosia. Students were introduced to contemporary social, economic, and cultural issues and were asked to respond to that by designing. Part of the introduction to the subject was undertaken by students from other disciplines. Their interpretations display the significance of specific issues in contemporary design education. Through these projects the social engagement of the contemporary designer is explored, as well as the contemporary trends in the design of spatial organisation. Flexible, adjustable, and ephemeral interior structures characterise the outcomes of the contemporary student projects in design education and most possibly express a general social attitude. This attitude is directed by a fast-changing context, where tangible and intangible values, spaces, and people have an ephemeral presence. Changing needs, changing economies, nomad users, and an ever-advancing domestic technology create the context where young designers are requested to create. Neutral, flexible, and malleable buildings gain their spatial identity by specific design elements such as interior structures, furniture, lighting, projections, interactive constructions, smart technology, and installations. A play with the senses and an extensive use of technology become valuable tools in the hands of design students who analyse and interpret external stimuli and synthesize their proposals trying to capture and satisfy the present momentum. Ephemerality, adjustability, and interactivity become essential characteristics. Sustainability, reuse, and user-friendly attitudes are often detected as side supporters to this approach.
Design Education

Crafts and Design: Collaboration Processes towards Innovation
Helena Grácio, Polytechnic Institute of Lisbon, Portugal
Design is an art, but today it deploys scientific and architectural methods in the derivation of the artefacts that are intended as its outcomes. Therefore, in design, the basis of a critical design theory or hypothesis is that whatever ephemeral or grounded artefacts that could be elicited in the program, there have to be an agreement that no grounds for fundamentalism would suffice. Under the consideration of total quality management approach, the collaboration between the consenting entities has to make an explicit commitment to the project objective. In this manner, a singularity of objective that is comprehensive and framed to the operational environment of the enterprise allows collaborating parties to take roles. Events, inputs, and outcomes of a design process should assume a compact enterprise model. Craftsmen and the designers should produce prototypes of the expected outcomes and test them on various considerations depending on the eventual use and form of the product or artifact. Multi-stakeholder approach suffices on this basis because each section has their areas of competencies and experience, which is relevant to a completely versatile and monumental product. In conclusion, needs matching from the onset of the project throughout should abridge the necessity to satisfy the essential attributes of the artifact being produced. The agile project paradigm approach, combined with a scientific erudition to yield authentic materials and design components that eventually meet the needs, is an essential consideration. The approach should be simplistic and utilitarian, but based on the engineering elements and requirements of the project.
Design Management and Professional Practice

Room 4 | **Inclusive and Anti-establishment Design**

Open Typology as Heterotopia: Gojikara Mura in Nagakute and the Humanitas in Deventer
Davide Landi, Liverpool John Moores University, UK
The twenty-first-century norm is represented by people living longer. This new demographic structure creates a number of societal challenges. One such challenge is that living longer and becoming old increases the likelihood of acquiring long-term conditions such as dementia. Another challenge is with the difficulties in defining a clear line between normal ageing and pathological ageing, a blurred distinction leads to stigmatising older adults as a social and economic burden. Therefore, there is a need for a care model-shift which is able to cope with a potential increase in a demand for high-dependency and high-cost services and also address stigmatisation. Importantly older adults' mental and physical well-being should have a central role in this "shift." A robust and productive relationship between people and space, and wellbeing can have a positive impact. Of course, this shift has inevitable architectural repercussions. Taking this into account, this paper critically explores the comparable impact of the Humanitas setting in Deventer, the Netherlands and the Gojikara Mura setting in Nagakute, Japan. The analysis of these two case studies is based on a one-time, post-occupancy evaluation framework, and organised into three parts defined as "thinking, making, and living." The method reveals the principles for conceiving a new architectural typology, the "open typology," which is grounded in the notion of an "open system." This system promotes "heterotopias" - diversity is the main medium for the production of relationships. Consequently, a new pattern of care is revealed, which is built around participatory and coherent collaborative team-work among different groups of health care providers, volunteers, residents, and their families. This "open typology" setting addresses both a new architectural design and a new care model with a focus on to normalizing ageing and tearing down personal and socio-economic stigma.
Architectonic, Spatial, and Environmental Design

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Tuesday, 6 March
14:10-15:50	**PARALLEL SESSIONS**

Design and Social Equity: An Examination of Barriers of Space, Access, and Interaction
Suzanne Moomaw, University of Virginia, USA
Sociologist Anthony Giddens defined modernity as: "a society—more technically, a complex of institutions—which unlike any preceding culture lives in the future rather than the past." The rebuilding of post-industrial communities to be vibrant, mixed-use industrial areas faces the conundrum of modernity. They are often defined by the past, challenged by the future, and stymied by the present. This paper explores examples of design-induced inequities in American cities and argues that an extensive range of interventions (buildings, highways, bridges, and public spaces) have been used to create barriers of division, flow, and social exchanges that have limited regeneration. Using a series of comparative case studies, a template of integrative design principles is proposed that can be applied at the city and neighborhood scales. This research focuses on design as a conduit to develop infrastructure, public space, and interactions that build stronger bonding and bridging social capital. Design visualizations of the spatial realities and the interrelationships of quality of life issues allow stakeholders to actually "see" the consequences of actions and can become intentional manifestations of social equity in communities and neighborhoods.
Design in Society

Gezi Park Movement: Negation of the State's Urban Developments and Spatial Segregation
Farzad Zamani Gharaghooshi, University of Auckland, New Zealand
Now it is well understood that the neo-liberal city is failing through its implosions and explosions. Indeed, the neo-liberal city is facing an immanent crisis, confronting a violent surge in racial, ethnic, and class segregation, extreme inequality, and alarming degeneration of natural environment. The evidence and also one of the consequences of this well debated crisis, is the negation of establishment (state power) by "ordinary citizens." This negation, resistance, and conflict is the consequence of an imbalance in social production of space, literally and symbolically. This paper unpacks a process that entails the occupation and appropriation of a public space in central Istanbul; an anti-establishment movement that negates and resist the force of "urban design" as the physical imposition of state ideology and its physical borders. In this case, the anti-design is the design itself, which empowers and acknowledges the existing abstraction, homogenisation, and violence, while resisting and abating it. This paper is based on a broader project on rethinking the notion of "public space" and urban movements within the context of Middle Eastern cities and uses the Gezi Park Movement as a case study to analyse the production of space and emergence of representational spaces of resistance beyond spatial boundaries. The analysis mainly relies on lived experiences of the movement's participants, auto-ethnography, and critical urban theory. This paper argues that the meaning of "urban design" – in a time that urban segregation, division and antagonism is an imposed normality for many within our society – should be radically challenged and suggests new possibilities for a different understanding of urban design.
2018 Special Focus: No Boundaries Design

Feminist Scenography in the Twenty-first Century
Kristen Morgan, Eastern Connecticut State University, USA

Nicole Rivera, Eastern Connecticut State University USA
Jen Rock, Eastern Connecticut State University, USA
It has been over two decades since Delores Ringer defined and explored the intersection of feminism and design for live performance in her essay, "ReVisioning Scenography: A Feminist's Approach to Design for the Theatre." Here, we examine what changes may have occurred in the intervening time. Recent research from lighting designer Porsche McGovern, published in HowlRound, indicates that the fields of scenic, lighting, and sound design for live theatre have remained dominated by men in League of Regional Theatres (LORT) in the United States. In some fields, the number of women filling design roles has decreased over the last several decades. This paper explores the experiences of women who fill these roles, through interviews and personal narratives. Through analysis of this quantitative research, we seek to evaluate the relationship between these new realities and the their effects on the nature of the feminist's approach to the design work itself. We also re-visit Ringer's taxonomy of feminist scenography through a twenty-first century lens. How has our current understanding of intersectionality altered our understanding of the term? And what does it mean to define oneself as a feminist scenographer in the current political landscape?
Architectonic, Spatial, and Environmental Design

| Room 5 | **Breaking Boundaries: Customization, Co-design, User Participation** |

Co-design and Footwear: Breaking Boundaries with Online Customization Interfaces
Nelson Oliveira, Federal University of Rio de Janero, Brazil

Joana Cunha
In the current era of valuing and sharing experiences, the consumer is eager to actively intervene in the construction of his own sphere of action. Therefore, having humanitarian and socializing design dimensions reveals designers capable of breaking barriers and broadening physical and conceptual horizons in order to fulfill their main purpose – the satisfaction of consumers' needs and desires. In particular co-design, as a win-win shared experience for brands and consumers, responds to the commercial needs of brands and to the needs of interaction, customization, sustainability, and emotional involvement of consumers. This approach between stakeholders is strongly enhanced by new technologies and digital environments, blurring the boundaries between designer and consumer/user and overcoming physical constraints. In the footwear sector some brands recognize the potential of this method, focusing on the development of online customization platforms. Thus, using the content analysis method, based on the study of three of these user interfaces, this paper discusses a proposal of a model for a platform-user relational analysis, specific to this universe. In this way, the study contributes to the theoretical reflection of the co-design applied to the customization of footwear based on case studies.
Visual Design, Design Management and Professional Practice, 2018 Special Focus: No Boundaries Design

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Tuesday, 6 March

Democratization of Design: Speculation on Future Three-dimensional Printing
Rick Patrick, Holy Names University, USA
Throughout history humans have been shaping things. For most of that history production was the result of handcraft. Each product was as unique as the craftsperson that produced it. That changed with the Industrial Era. Uniformity of production became a key feature of Modernity, and according to Marx, the work of the craftsman "lost all individual character, and, consequently, all charm for the workman." The future of design may restore the nexus between the individual and the object as the advances of the Digital Age transform our era. The resulting outcomes, while not obvious, are well worth speculating upon. The contemporary capitalist economy is reliant on a system of design, manufacture, inventory, distribution, and consumption. However, in a future of readily available and sophisticated 3D printers the capacity to eliminate all intermediate stages will exist, thus allowing the designer and the consumer to merge. In effect the future could allow each individual to create (or modify), produce and consume original designs independent of any manufacturing infrastructure. This would create an entirely new economic paradigm. It could also define a new democratization of the design process – to each his own.

Design in Society

Co-design for Renovation in the Context of the Collaborative Research Centre (Australia) Projects: Interaction Design Provocations for Media and Communication Critique through Design
Gavin Melles, Swinburne University, Australia
Collaborative Research Centres (CRC) in Australia focus on themes of national interest, such as low-carbon living (LCL). Such projects engage interdisciplinary teams of architects, engineers, social scientists, industry, government and occasionally design disciplines. Increasingly there is pressure for CRC projects to develop commercially viable outputs, especially where "maker" disciplines such as engineering and design are concerned. Such pressures, however, may conflict with the speculative intentions of design research and its intentions to contribute to critical intellectual discourse. In the interdisciplinary CRC LCL project described below the role of media, intermediaries, and other social networks as well as the relational notion of trust proved to be central tropes. Through the co-design outcomes of the project involving a range of stakeholders and students we made such concepts tangible and reflected on the critical arguments for and against media as vector for sustainable renovation. In this project we examine the integration of interaction design and human-centred design approaches across an eighteen-month period to prototype and test research into renovation practices. The study focuses on the interdisciplinary challenges that exist in such contexts for design and illustrates these with specific examples of the process and effects.

2018 Special Focus: No Boundaries Design

The Influence of Kampung Collective Culture on Co-design Practices in Indonesian Cities: A Case Study of Jakarta, Solo, and Malang
Andi Setiawan, Lancaster University, UK
Co-design encourages ordinary people who are not trained in design to becomes involved in making design decisions. It is important to understand how the participant's culture affect the design process, to ensure they can maximize their creative potential. This paper is a part of ongoing research on co-design conducted in Indonesia and the UK. In this paper, we specifically describe the results of a field study in Indonesia. The findings provide insights on how the collective culture of Indonesian kampung society influences the co-design process. We conclude that it is necessary to revive the collective values of community when applying co-design methods. The conclusion of this field study is an important point for comparison with the findings from the UK contexts.

Design in Society

Room 6 | **New Directions in Design Education**

Creating "Win-Win" Opportunities for Students and Nonprofits
Claudia Scaff, University of North Florida, USA
According to the National Council of Nonprofits, as of December 2016, there were 1,202,719 public charities and private foundations in the United States. As many of them start without a budget for branding and marketing materials, they often reach out to design programs in order to find an intern or a volunteer designer. How can design programs take this opportunity into the classroom? How to select the organizations? How can students benefit from this experience? This paper investigates the outcomes of non-profit organization projects that were brought into the classroom as an optional assignment. It investigates the expectations of the students and the organizations, the success of the deliverables, the effectiveness of the methodology, and the reflections of the students who weren't involved in the project, but attended their classmates' presentations. It examines final results, and makes recommendations about how the whole class can benefit from this experience.

Design Education

Share and Teach: A New Interactive Tool for Teachers to Design Educational Materials for Students of Primary School Using Different Devices
Lara Musa, Communication Web Agency - Florence, Italy
Use of interactive tools and touch screen devices has already increased perception of new opportunities compared to traditional educational instruments, but even so these types of devices are often used by teachers and students with a traditional approach, without exploiting opportunities offered by these new technologies. This research promotes a new way of using Interactive White Board (IWB) and other new related technologies in order to improve educational material. The project named, Share and Teach, is dedicated to primary school teachers and proposes a new collaborative approach in managing and integrating training material using interactive systems. This research has developed an innovative human Interface machine (HMI) with a friendly graphic interface (GUI) to design educational material for students that can be accessed, upload, and modified by our different every-day devices (IWB, pc, tablet, smart phone).

Design Education

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| 14:10-15:50 | **PARALLEL SESSIONS** |

From Complexity and Plurality to Simplicity and Plenitude

Laureti Marta, *Sapienza University of Rome, Italy*

Starting from the second half of the twentieth century to now, the cultural debate about the "nature" of design has not been able to produce a univocal definition of it, but rather it has highlighted the "complexity and plurality" of design with a significant shift from the interest to design as subject to an interest in its processes. In particular, in the evolution of this debate some authors, during the years, have highlighted how design has approached "complexity and plurality." Enzo Frateili, in 1969, drew a map of influence spheres as components of design. Alain Findeli added more (2001), in his contribution on design education, recognizing three elements (art, science, and technology) as elements shaping the design discipline. In the same way, Rich Gold (2007), describes the relations between "the four creative hats" of art, science, design, and engineering recognizing seven patterns of innovations in common for all the disciplines. According to them, in the design vision, "complexity and plurality" become not critical conditions but the nurturing context in which to act, transforming them according to a positive meaning where, using Gold's words, complexity becomes a form of "plenitude" and plurality can be re-arranged in a new form of "simplicity." This paper, as starting phase of a doctoral activity, explores and reports some experiences of design research to investigate if and how these two concepts, of plenitude and simplicity, could be a vehicle of innovation.

Design Education

Leveraging the Smartphone as a Teaching Tool

Heather Snyder-Quinn, *DePaul University, USA*

Educators are often frustrated with students' constant attachment to their smartphones. But why do we assume the smartphone isn't a creative tool akin to a pencil or brush—a simple way of seeing and interpreting the world around us? As the world of design vacillates forever between the digital and analog, it's imperative that students (and educators) understand an ever-expanding array of principles. The best thing we can teach students is how to be adaptive and curious thinkers. Students can best embrace uncertainty and find comfort in a process of discovery by exploring and pushing the boundaries of the familiar. This is where the phone excels as a teaching tool. We can use a smartphone's features in unintended ways that harness its power as a creative tool by altering our own expectations. The smartphone is a device that most students have as an extension of their hand (though we must be vigilant of our own assumptions from privilege). Once students learn to use the smartphone in unintended and perceptively novel ways, they can extend this method to both past technologies and those yet to be imagined. By having students hack, make, and create in this manner, we are teaching them to think beyond the hand and machine, to the tool that has not yet been discovered. By exploring and investigating the capabilities of, and ever-present reliance upon our smartphones, we can raise awareness and open the classroom conversation to discuss ethical implications in design, including privilege, accessibility, inclusion, privacy, and addiction.

Design Education

| Room 7 | **Workshops** |

Perception Evaluation Kit: A Case Study with Materials

Ainoa Abella Garcia, *ELISAVA Barcelona School of Design and Engineering, Spain*
María José Araya León

This workshop develops a joint experience to understand the perception of people about materials as a stimulus. These materials will be introduced in different interaction formats - pictures, videos, and physical samples - to give rise to different responses in the perception of their attributes, measured qualitatively and quantitatively. The aim is to understand the relationship between what users consciously report and their physiological response. The proposed measurement tools belong to different fields of research. Some are based on psychological tests - questionnaires and graphic material - and physiological measures -facial reading, pulse measurement, and galvanic response of the skin. The process will be developed in three phases: measurement, basic analysis, and application. In the first phase, participants will experiment with the tools and materials. Subsequently, they will work together to understand the resulting data and thus detect differences and similarities between them. To end, a creative activity will be performed in teams. The final aim is to show and test different tools of measurement of perception coming from other disciplinary fields. The comparative analysis of these different responses will allow visualizing strengths and opportunities of application and innovation in design.

Design Education

Design Advocacy out of Necessity

Doris Palmeros-McManus, *University of the Incarnate Word, USA*
Vicki Meloney, *Kutztown University, USA*

Recent events have America divided, and this division is filtering through society and onto our campuses, leaving many people despondent. As design educators, we have an obligation to communicate the power of design advocacy to our students. As citizen designers, we have the ability to organize low-cost, highly-effective events that will serve to bring the community together and will empower our students to use their creativity as a powerful voice in the world. Hate-the-Hate is a movement to counter hatred and anger with beauty and hope, started at Pennsylvania's Kutztown University by Vicky Meloney and echoed 1,500 miles in San Antonio Texas with Doris Palmeros at The University of the Incarnate Word. This workshop explores how to leverage and implement affordable low-tech design techniques as a way to create powerful messages of hope and tolerance that affirms the importance of educating our students about the power of design advocacy. We will explore "hands-on" projects that can produce impactful visuals and that can be done by both designers and non-designers. For example, techniques like stenciling, Xerox transfers, collage, and DIY silkscreening combined with origami and writing exercises that provide a meaningful creative outlet regardless of artistic ability. Ultimately we want to demonstrate how design advocacy has the power to engage and propel both students and the wider community to find a voice. Today's design students will need all the tools in their creative arsenal to help shape the world they want to live in. By cultivating conscientious students and involving them in community efforts we are helping them make connections that could produce innovative visionaries.

Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Tuesday, 6 March	
14:10-15:50	**PARALLEL SESSIONS**
Room 9	**Spanish Session**
15:50-16:00	**Transition Break**
16:00-16:45	**Plenary Session—Marti Guixè, Interior and Industrial Designer, Barcelona, Spain and Berlin, Germany**
	"Ex-designer"
16:45-17:15	**Garden Conversation**

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March
08:15-09:00 **Conference Registration Desk Opens**
09:00-09:20 **Daily Update**
09:20-09:55 **Plenary Session—Ariel Guersenzvaig, Senior Lecturer and Researcher, ELISAVA School of Design and Engineering, Barcelona, Spain**
"Design Ethics: A Dual Challenge"
09:55-10:25 **Garden Conversation and Coffee Break**
10:25-12:05 **PARALLEL SESSIONS**

Room 1

Graphic Design Education

Graphic Design in Flux: Multiliteracy, Multimodality, and Meaning
Mary Anna La Fratta, Western Carolina University, USA
Undergraduate graphic designers engaged in unique collaborative projects, at Western Carolina University (WCU), in North Carolina, USA. The projects focused on unfamiliar subjects, required a range of digital media skills, and were evaluated by users and professionals outside of design. The goals were to begin student participation in the larger dialog of contemporary graphic design and its applications. Cherokee Word Games involved developing physical card games for learning, reading, and speaking Cherokee. Cherokee language students and faculty within the Qualla Boundary, home of the Eastern Band of the Cherokee Indians (EBCI), and tribal members played the games. Their feedback prompted many revisions. Unfamiliarity with the language and writing and presenting clear instructions proved difficult. Two games are included in the imagiNATIONS Activity Center at the Smithsonian National Museum of the American Indian. A dynamic media design firm has been approached to translate one game into a mobile game app. The games are given to the tribe and their schools as tools toward preserving language. Animations on Nanotechnology was based on translating written scripts into sixty second animations. Challenges for the students included: understanding and accurately interpreting the science, realizing the nuance of motion as it shapes content. Video conferences with scientists at the National Nanotechnology Coordination Office (NNCO)/National Science Foundation (NSF), provided feedback for revisions. Selected animations were included in the ideastations.org/science matters website, PBS Learning Media, and on two Public Broadcasting Service television stations. These partnerships to develop educational media continues as an opportunity for our graphic design students.
Design Education

Teaching Graphic Design History to Students of Visual Communication Design
Trond Klevgaard, Royal College of Art, UK
The graphic designer (as opposed to the commercial artist, compositor, or lay-out man), first emerged as a professional figure around the middle of the twnetieth century (Hollis, 1994). Since then the profession has gone through a number of significant changes. That the profession has changed is reflected in the changing vocabulary used to define it. For instance, this conference does not include "graphic designer" amongst the many different types of professionals listed in its "scope and concerns." The terms "visual designer" and "communications or media designer" are used instead. Similarly, many colleges and universities now offer courses in Visual Communication Design rather than Graphic Design, as the broader former term is seen to signal a break with the print-centrism of the latter. This paper will argue that graphic design history, as exemplified by the texts of Meggs, Hollis, Eskilson, Jubert, Cramsie, and Drucker and McVarish, has yet to fully take the consequences of the shift from graphic design to visual communication design. Intended as a first small step towards repositioning graphic design history, it will map the extent to which these titles incorporate considerations of time-based media and interaction design into their narratives. Based on the author's experience of teaching both graphic design history and interaction design, it will also make suggestions of alternative areas of interest which could be included in order to increase graphic design history's relevance for today's visual communication design students.
Design Education, Visual Design

Logo Design as Transformative Learning: Melton Gallery Rebrand
Amanda Horton, University of Central Oklahoma, USA
Sam Washburn, University of Central Oklaholma, USA
The University of Central Oklahoma defines transformative learning as a holistic process that places students at the center of their own active and reflective learning experiences. When the Melton Gallery decided to rebrand as part of its newly identified mission it was an opportunity to employ the university's mission of education through transformative learning practices and experiential education. This exploration reflects a process that used design thinking, research, and problem solving to develop a creative solution for the logo, by a team including a professor serving as art director, a graduate student as senior designer, and an undergraduate as the junior designer. As part of the transformative learning process the focus for the project included specified tenets of transformative learning such as research and leadership, and employed practice as part of visual design education; this study will focus on how leadership and research were used by students to solve a design problem, as well as the hurdles that were encountered along the way, including the approval process by the university. It will also explain transformative learning and how it was used as part of a grant funded visual design project.
Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 10:25-12:05 | **PARALLEL SESSIONS** |

Connecting Data, People, and the Built Environment: Breaking Boundaries to Display Information in Non-traditional Spaces

Teresa Trevino, *University of the Incarnate Word, USA*

Displaying data in public spaces is an ancient practice. Today, due to excess of information, and new technologies this practice requires highly-skilled multidisciplinary teams to succeed. The goal is connecting data and people to improve knowledge and help individuals move forward. Unfortunately, in academia, a multidisciplinary team is not an easy task and sometimes not even a possibility. As an information design educator is my goal to create learning experiences for students to play new roles, break boundaries, and explore new territories to learn to display information in non-traditional spaces. This paper introduces projects done by graphic design students from my Information Design course. In all cases these projects required from students to observe human behavior, understand location and context, document navigation patterns, understand scale, proportions, and ergonomics, learn spatial relationships, collect and analyze data, build content, create narratives, develop visualizations, understand materials, understand climate changes, create analogue and digital prototypes, learn basic illumination skills, understand and apply regulations and standards, envision and apply inclusive design, present ideas clearly and effectively, and consider technology as key element for interaction. Each case will include specific purposes, methods, context, design decisions, and results.

Design Education, Architectonic, Spatial, and Environmental Design

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Room 2

Memory, Commemoration, Design

Permanence versus Sustainability in Memorials Designed to Commemorate Warfare in the Twentieth Century and Onwards

Cayo Gamber, *The George Washington University, USA*

When designing commemorative memorial sites to the Shoah there is a pronounced desire to ensure permanence. Given that these memorial sites are seen as the grave markers the victims were denied, the desire for permanence is understandable. This desire is made manifest, more often than not, in the creation of imposing structures that must be confronted. For example, even the most casual of tourists to Berlin would be unable to walk by Eisenmann's Memorial to the Murdered Jews of Europe without asking, "What is that; why is it here; and who/what does it represent?" I would like to argue, however, that we could/should learn from rethinking permanence as a design imperative. To that end, I ask: What might sustainable designs look like? There are some brilliant designs that one might consider as exemplars in this regard. The 2014 Tower of London display of 888,246 ceramic poppies – one for each British and Colonial fatality during World War I – is a striking display of the ways in which a commemorative event can become a memorable performance piece, an impetus for charitable giving, and a means of promoting individual, personal remembrance. Created by artists Paul Cummins and Tom Piper, 888,246 ceramic poppies progressively filled the Tower's famous moat over a period of five months, from July to November 2014. At the conclusion of the display, each poppy was claimed by individuals who had purchased one of the flowers. Of course one could and should argue that consumer culture is a problematic by-product of this memorial effort. Each poppy "sold" for J25 each, then. Today, individual poppies are being offered for resale for up to J350 each. Holders for the poppies also have been sold for Oak, J39.75 or Walnut, J46.75. I could go on. In addition, there have been questions regarding how much of the proceeds have benefitted the charities that were targeted: The Royal British Legion, Confederation of Service Charities, Combat Stress, Coming Home, Help for Heroes, and the SSAFA. Such questions and concerns, I would argue, are part of the necessary "life" of a memorial. If no questions are asked regarding how a memorial is funded (or provides funds), achieves a specific set of goals, or is received by multiple audiences, then the memorial has no "pulse," no life or life purpose, because it does not inspire engagement and inquiry. In this paper, I will explore how memorial design competitions, design promotion, design "thinking" should be shifted from invoking permanence to embracing sustainability as a means of promoting harmony and balance, a means of carefully and meaningfully using resources (including, occupying valuable space), and as a means of thinking about the future.

Designed Objects, Visual Design, Design Management and Professional Practice, Architectonic, Spatial, and Environmental Design

Design and Conflict: Generation of Symbols for Reconciliation and Collective Memory

Kevin Javier Fonseca Laverde, *National University of Colombia, Colombia*
Nélida Ramírez T.

Historically, conflict scenarios rose in different societies and their consequences and effects generated initiatives such as the "Universal Declaration of Human Rights" in 1948; that has remained in time and seeks recognition of dignity and respect for equal and inalienable rights. The final agreement signed in Colombia in 2016 to end the conflict and build a stable and lasting peace between government and one of the guerillas was a process that took four years. Currently, Colombian society is in a post-conflict scenario, as other countries have also experienced. These peace-building scenarios brought reaching social changes that allow design and research to explore this field of action. This study is an analysis of the most representative cases of societies in conflict and post-conflict where variables are evaluated by comparison/contrast in order to identify the common elements of convergence and divergence during the building processes of symbols that are part of the collective memory of the studied society. These manifestations generate, alongside the actors involved in affected communities by participatory methodologies, the building of community identity. Through the construction of symbols, the reconciliation processes are generated to contribute for peace construction, collective memory recognition, and identity protection as a human right.

Design in Society

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

10:25-12:05	**PARALLEL SESSIONS**

Dialectics of Space from the Varosha Episode
Ayşe Banu Tevfikler, Eastern Mediterranean University, Cyprus
The "Ghost City" of Cyprus, Varosha has been the city of glory until 1974. Today, it is the focus of all peace building activities, mainly with its physical potential. Now, with new optimism and perspective gathered from the latest Cyprus Conference for peace, construction of a new future over the tragic ruins of the past is, once again, imaginable. Design, incorporating practice and social aspects together, can lead the preservation of cultural heritage via viable steps to shape the city's life. Existing building stock especially, had rightfully been the point of attraction as Varosha was far ahead of its time. This study however discusses more intangible values such as memory and meaning incorporated within overall existing spaces. Heidegger's understanding of "space" with the human being at the core of it and Lefebvre's formation of space are recapitulated. The phrase "to remember as looked, to look as remembered," a common idiom used to be written by Cypriots at the back of memory photographs, is the template to look at this high potential design subject phenomenologically. Such existence has the potential to enhance awareness of the complexity and diversity of social side of design.

Design in Society

Authenticity, Material Culture, and Design: Intersecting Grounds of Yoruk Culture and Tourism
Ozge Agca, Atilim University, Turkey
Dilek Akbulut, Gazi University, Turkey
Yoruk culture, which is known as the traditional nomadic Turkish lifestyle, today is carried out as semi-resident life in newly established villages. These newly constructed settlements, from time-to-time serve as a part of cultural tourism where "Yoruk" lifestyle is generally demonstrated as a staged experience of authenticity. "Staged authenticity" can be defined as the re-production of culture-specific objects and rituals for and in touristic settings for the production of authentic touristic experiences. In such circumstances, material culture of Yoruks forms the focus of this study. The traditional objects used by the Yoruks are gone through a transformation with the introduction of industrial techniques and materials, they are re-designed for the changing Yoruk lifestyle, or substituted by industrial products which can be converted into portable, rapidly deployable and multi-functional products based on their traditional nomadic life practices. Moreover, the products used in resident daily life are adapted to this semi-nomadic lifestyle. In this study, the design and the transformation of the elements of Yoruk material culture are analysed within the context of culture, authenticity, sustainability, craft, and tourism. The framework of the study are nomadic festivals, the Yoruk villages and the museum for Yoruk culture in Mersin province in southern Turkey which is chosen as the medium of staged authenticity.

Design in Society

Room 3	**New Directions in the Technology of Designed Objects**

Associations of Form Perceptions in Denim-polymer Composites: An Introductory Study
Jaime Francisco Gómez, University of Guadalajara, Mexico
González Madariaga Francisco Javier
Rosales Cinco Rosa Amelia
Visual perception is the process that allows human beings to identify, interpret, and know what exists in their surrounding environment. It begins with the stimuli (from objects) that the individual consciously decides to pay attention to and a fundamental aspect of objects that allow such perception is form. The element of form is essential and relevant in design and its proper use implies psychological and technical knowledge. Form is the visual aspect of content whose function is to inform about the nature of objects through its exterior appearance. There are laws and principles that explain the perception of form, and one of them is the Law of Prāgnanz, or law of simplicity. The investigation verifies the Law of Prāgnanz or simplicity of form from the associations of composite materials made up of two types of polymers (acrylic and polypropylene) and denim trim scrap frayed fiber. This knowledge will help to develop design projects implementing the Law of simplicity, offering users effective perceptual associations. To this purpose, a survey of six different stimuli was performed on a sample of 120 design students, regardless of genre, who study at Centro Universitario de Arte Arquitectura y Diseco from the University of Guadalajara.

Designed Objects, Visual Design

The Use of a Wearable Intervention for Laptop Users: A Study of Ergonomics, Productivity, and User Experience
Byungsoo Kim, North Carolina State University, USA
Sharon Joines
Almost a half of the people in the USA have a laptop computer. However, since the monitor and keyboard are assembled adjacent to each other similar to computer designs of the 1970s and 80s, laptop users tend to have non-neutral neck posture, e.g. greater head tilt and neck flexion compared to using a contemporary desktop. Static exertions coupled with awkward head and neck postures sustained for extended periods of time result in muscle fatigue, discomfort, and decreased productivity. Since there are no current studies documenting effective interventions for laptop users' neck postures which do not sacrifice the posture of another body segment, this study investigates the potential benefit of a wearable intervention improving the posture for laptop users while minimally impacting productivity. The wearable intervention (e.g. glasses with mirrors and prisms to deflect the line of vision by ninety degrees - periscope-type) was used to improve the head and neck posture when using a laptop in a standard office environment. During this study, participants were exposed to two conditions. One condition was while working without the intervention and the second was while wearing the intervention. After completing a series of reading and typing tasks in each condition, participants were asked to reflect on their experience while wearing the intervention. Participants experience will be shared.

Designed Objects

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

10:25-12:05	**PARALLEL SESSIONS**

| Room 4 | **Design Management and Professional Practice** |

Maker Spaces and Design: Open Community Spaces and Their Role in a Changing World of Work and Design
Anne Bergner, Coburg University, Germany
During the past decade we can observe the rise of the maker movement dedicated to tinkering, experimentation, creative, and freelance work as well as entrepreneurship. From craftspeople to designers and computer hackers, this movement encompasses a wide range of creative individuals. Maker spaces are community spaces with tools, technology, and resources for makers to design, innovate, and produce. These open, creative, collaborative, and community-oriented places are providing a working space for organic creative collisions and function as liminal spaces in which career transitions take place. For designers, these spaces could become an important prerequisite to pursue their career, since project-based work has become a predominant form of organizing work and labour and the number of part-time employment, microbusinesses, and designer start-ups are growing rapidly. This will change the way we design, build our career paths, as well as the professional field of design in general. The author carried out a study examining the increasing role of maker spaces for individual designers as well as the competitive position and resilience of the creative industry.

Design Management and Professional Practice

Lessons from Advertising
Priya Noel, IBM, USA
Keeping a user interested in your product is tough. A quarter of users stop using an app after one use. Three fourths of users will find another site to complete a task. Half of the visits to mobile sites are abandoned after three seconds. The opportunity to capture your users' attention and retain that attention is getting squeezed by the competition and the need for instant gratification. So, how do you stack the deck to your advantage and deliver an experience that brings in users, and keeps them? It's time to look outside the traditional user experience, to an industry that's managed to capture the attention of an audience that is vehemently reluctant to engage with them in the first place. Advertising. Commercials. That's right. The thing you forward passed on your DVR. The button you wait five seconds to click on YouTube. The thing you pay a premium cost for ($5 a month if you're a HULU subscriber) to avoid completely. Believe it or not a lot of design, testing, and strategy is at the core of that thirty second commercial. So what can commercials teach you about UX? We'll review successful ad campaigns, the strategic tactics that made crucial connections with users, and how you can leverage those tactics for the user experience. Examples from the three C's of marketing strategy will be shared: Consumer: Uncovering consumer insights; Competition: finding the competitive white space; Culture: leveraging a commonality within an ever changing cultural climate.

Design Management and Professional Practice

Breaking Down Process Boundaries: Design, Lean, and Agile
Michael Bailey-Van Kuren, Miami University, USA
Design thinking, lean thinking, and agile are project-centered methodologies that are introduced independently to users. A novel integrated framework is proposed that combines elements of lean and agile methods with the user-centered design process. Each process methodology can be summarized by tools, sequence, and context. Based on foundational principles, lean and agile processes are extended from their traditional context to a design context. In design, the lean principles of value, value stream, flow, pull, and perfection provide an alternative framework for analyzing user needs. Agile principles help teams deliver value quickly while mitigating risk and managing uncertainty. Thus, agile methods provide a user-centered project management system. All three methods promote visual and verbal tools for intra-team communication. The presented integration of design, lean, and agile processes benefits iterative team-based projects through efficient use of design project time and a reduction in wasted design effort. The ability to maintain divergent thinking and creativity in a managed system is discussed. An additional benefit of the augmented design process is that it expands the knowledge base of team members. Within the educational setting, the combined methodology provides three transferable workforce skills for students seeking internships or post graduation employment.

Design Management and Professional Practice

| Room 5 | **Approaches to Design Education** |

Speculative Materials
Valentina Rognoli, Polytechnic University of Milan, Italy
Manuela Celi
Within the past few decades, a relatively new approach to design has emerged, allowing designers to consider beyond the wants of the present day and design critically about the future. "Speculative design" considers the problems which design, until this point, has not been able to effectively address. It promotes a fictitious approach, and it invites designers to create without the constraints of present-day problems in order to conceptualize the future problems. It is possible to use speculative design to describe work that uses design (products, services, scenarios) to address challenges and opportunities of the future. Looking at 5-10+ years forward and speculate on how things could be and what future we want or don't want based on these scenarios, the message is that design also has an impact beyond the user. Speculative design can facilitate ways to look forward but also consider this hidden impact, influence and future ecosystems. It does not seek a market, but instead relies on form and function to communicate a concept and explore a possible future. These designs can be shocking, dark, and unnerving in order to communicate radical ideas about the future landscape of design. Design fiction is a type of speculative design (which itself is a relative of critical design). All of these related approaches use design in order to explore and critique future possibilities. The term appears to have been coined by Bruce Sterling in his 2005 book titled "Shaping Things." Theoretical investigation of the proposed topic linking concepts like speculation, fiction, and storytelling with materials for design. Innovate the contribution and application of speculative research to innovative materials. The objective of the research is to enhance and apply the "what if" approach in a close interrelationship between speculative research and materials design within the design-driven innovation processes, materials driven design method and the entire supply chain of the project value.

Design in Society

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 10:25-12:05 | **PARALLEL SESSIONS** |

Bridging Sciences to Find New Insights in Design
Krystyna Gielo-Perczak, University of Connecticut, USA
The proposed design principle based on human preferences through combined biomechanics theory with practice and chosen parameter/s of design may help to unify and enhance the design process. However, the task is not only for a designer but for a partnering scientist who will try to reveal the laws and rules of human-body interaction with a potential object design. This will create a foundation of design thinking, confirm its effectiveness and efficiency. Real life examples will be demonstrated and intended to serve as an introductory guide for designers who are required to define individual population groups and apply their knowledge to the design of places where people live, work, and return to health.

Design Education

Mindfulness in the Design Studio
Zeynep Ceylanli, Özyegin University, Turkey
Mehmet Bengu Uluengin
Architectural design studios are conducted mainly with one-to-one desk critiques and several jury sessions during the semester. This direct assessment method, with the necessity of the student to be present, alert, and responsive, differs from lecture based courses since the learning method requires constant dialogue and feedback about their design projects. Considering the emotional distress and time pressure, the students are having a hard time concentrating on their project, processing the feedback, or coming up with more creative design solutions. This study investigates and documents in an open-ended and exploratory way, the effect of mindfulness-based stress reduction (MBSR) strategies on the creative capacity of design students, as well as their overall performance in studio. Students in interior architectural design studios will be the focus group of the study and they will be monitored by their studio instructors and an MBSR instructor. Mindfulness has the potential to enhance creativity, and to make interior architects more keen designers. Any improvements in the students' issues with mind-wandering, being fixated on a specific design solution or design element, their communication with the peers, anxiety or uneasiness felt during critiques and pin-up reviews can alter the studio model in favor of the creative design thinking.

Design Education

Teaching Problem Setting: Differential Diagnosis as a Design Method
Sebastien Proulx, Ohio State University, USA
The problem definition, the diagnosis, is an essential task of any project that required a creative thought process but which often goes as unnoticed and undescribed. Design methodologies are insightful in many ways, but are still conjectural in regard of the diagnosis part of the process. Mind mapping, for instance, is useful to expose designers the complexity of a project context. Yet once the mapping of the complex network of issues and arrows are organized, classified, and hierarchized often remains subject of intuition. This is a major concern for design educators who ought to prepare students to act as enlighten design practitioners. Practitioners able to justify what they do and why they do it. To improve the diagnosis process in the design studio, we will introduce and discuss the differential diagnosis method. This clinical medicine method relies on a process of elimination for sorting information, challenging forejudgment, and distinguishing specific problem from others that present similar features and issues. We argue that because this method relies on abductive reasoning and required to make prognostic, through testing and prototyping, it can be relevant and efficient for designers to tackle the problem setting task.

Design Education

Room 6 | **Architecture and Design in Society**

Designing Lighting for Historical Buildings Using a Modular Methodology
Thanos Balafoutis, Hellenic Open University, Greece
Stelios Zerefos, Hellenic Open University, Greece
Historical buildings are classified into architectural periods, which can be defined by repeated sets of distinct morphological elements on the respective facades. Lighting these types of buildings can be a difficult and complex task due to the vast number of different elements that have to be taken into account. This paper discusses an application for lighting historical buildings through a specific methodology. The methodology used does not count merely on an artistic or visual approach, but rather introduces a system that helps lighting design decisions regardless of historical periods. This is achieved through the collection of the most important decorative elements on the facades and filtering them to find shared elements. The facades are then procedurally decomposed into design modules according to the collection of elements and each module is lit and tested through simulations. The simulations then form in a database of possible lighting scenarios. The database is then evaluated in a reverse process to test the building as a whole. This reverse process is scrutinized by experts in the field of lighting design. The most promising results are classified and present a number of different methods on how to light the façade of a historical building.

Design Management and Professional Practice, Architectonic, Spatial, and Environmental Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

Visual Discomfort and Architecture: A Trypophobic Perspective

Fay Al Khalifa, University of Bahrain, Bahrain
Nehal Al Murbati
Joao Pinelo

Contemporary architecture has been generated for some time now using computer-aided modelling tools that facilitate the design of numerous unordinary forms and spaces. Research in visual comfort argues that images with unordinary spatial properties can cause psychological and physiological reactions in some people. One of those reactions is called trypophobia, an irrational fear of clusters of objects, mainly holes, with roughly circular shapes. This study suggests that some of the contemporary architectural solutions deviate from the consistent spatial properties that are comfortable for the visual system to process. The majority of the studies that examined trypophobia and its psychological reactions were based on two-dimensional images. The effect of the third dimension was not

investigated. This research focuses on trypophobia as a psychological reaction towards three-dimensional stimuli, including textures and spaces, within the contemporary built environment. The research measures the visual comfort of users in the presence of three-dimensional trypophobia-inducing building elements, and investigates the likelihood of hindering the attractiveness of spaces where such stimuli exist. The project produces a set of architectural design parameters and guidelines that take into account visual comfort in general and the comfort of the trypophobic population in particular.

Design in Society

Rebuilding the Frank Lloyd Wright Pavilion: A Collaborative Approach

Albert C. Smith
Kendra Schank Smith

Yew-Thong Leong, Ryerson University, Canada

Zaiyi Liao
Matthew Lauder

The research team in the Department of Architectural Science at Ryerson University is attempting to rebuild the currently destroyed Banff Pavilion. This will bring the master designer Frank Lloyd Wright's work back to Canada. The project team consists of specialists in structure, technology, design, history, and heritage. This diverse group of professionals reinforces the idea that design in architecture is not solely about designers but instead about working cooperatively with specialists in multiple fields. The Frank Lloyd Wright Banff Pavilion Initiative project will explore Frank Lloyd Wright's design methodology within the drawings for the Banff Pavilion. Through the exploration of Frank Lloyd Wright's design process, and specifically his use of geometries, the floor plans and drawings for the Banff Pavilion could be re-drawn. The research discovered examples of squares and the golden section ratio in plan, section, and elevation. From these findings the research team was able to determine probable dimensions using proportion, and through this process, begin completing a set of schematic drawings in preparation for construction documentation.

Architectonic, Spatial, and Environmental Design

Public Interiority: Fleeting Interior Conditions in Exterior Spaces

Liz Teston, University of Tennessee at Knoxville, USA
Allie Bosarge

Interior urbanism is a rapidly growing topic in design research, occupying the threshold between the disciplinary territories of interiors, architecture, and urban design. This paper fills the gaps in the scholarship, develops ideas, and deepens understanding of public interiority. Conditions of interiority may occur anywhere, in interior or exterior territories. It is a state of mind and relies on fleeting circumstances. It is mobile and provisional. Interiority which occurs in the exterior realm differs from the normative exterior condition because it embraces personal experience. In this paper, I reinterpret public interiority as an ephemeral, subjective condition of urbanism. I propose a twofold approach to reframe the existing research, including a comprehensive survey of covered areas, passages, and thresholds which lend themselves to literal enclosure and interiority and documentation of places that deepen understanding of exterior-interiors.

Architectonic, Spatial, and Environmental Design

Room 7 | **Branding Strategies and Dynamics**

Follow Me, Please: Transforming a Life into a Life-style Brand

Kathryn Weinstein, Queens College, CUNY, USA

The social-media-influencer market is estimated to be worth five hundred million dollars today and is expected to increase to at least five billion dollars by 2020. Young people, both as producers and consumers; dominate this type of marketing with a new breed of brand ambassadors emerging— the micro-influencer. The micro-influencer is homegrown, born out of developing an on-line persona (New England gentility, surfer gypsy, hipster marathon runner, teenage fashionista), on social media through the posting of photographs and/or videos and attracting a loyal, engaged base of 10-100 thousand followers. The photo-sharing app, Instagram is a favored platform for the development of micro-influencers for its potential to build visual narratives and audiences over time in micro-installments. Advertisers pay for endorsements by insta-celebrities for their ability to connect a brand to a narrowly focused base, creating careers for those willing (and able) to parlay a life into a life-style brand. Representing 17% of current Instagram users, baby-boomers are predictably under-represented in the Instagram universe, but are estimated to become the fastest growing demographic. "Follow me, please" is an experiment that adopts the strategies of young micro-influencers to develop a mythical on-line persona on Instagram of a baby-boomer navigating retirement and aging. The paper traces Riley's pursuit of becoming a micro-influencer and shares lessons learned including the evaluation of handles, optimum number and timing of posts, finding appropriate hashtags, the etiquette of engagement, and the development of a visual narrative. The reception of the project is documented and questions emerge about the representation of age, and the conflation of portraiture with advertising, on Instagram.

Design in Society

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

10:25-12:05	**PARALLEL SESSIONS**

Brand Communications Using Triple Media in the Digital Age: A Focus on Winning Campaign Advertisements for Cannes Lions International Festival of Creativity

Heejin Kang, IDAS Hongik University, South Korea
Boram Park, IDAS Hongik University, South Korea

Today, unlike relying on just traditional media, smart consumers search brand information in real time through various media and make decisions on product purchases. The influence that traditional media, unilaterally transmitting information, has on smart consumers is gradually diminishing, and as the influence of interactive communication through digital media is increasing, communication through triple media is attracting marketing people's attention. It's important to recognize the changes in the media paradigm and establish a brand communication approach while focusing on communication. This allows various media to become well connected and deliver contents in three dimensions, rather than have communication limited to only one medium for communication with consumers. Although the communication paradigm has been rapidly changing, there are many brands which have found it difficult to communicate with consumers since they don't know how to make best use of media strategically. Also, the media has not coped well communicating with consumers and dealing with changing circumstances caused by smart phone users who have control. Therefore, this study analyzes the brand communication strategies of several examples from the 2017 Cannes Lions, highlighting the implication on correlation between triple media and brand communication when triple media was strategically utilized.

Visual Design

Design Guidelines for Brand Identity Change: Analyzing Successful and Failed Cases of Brand Identity Change

Da Eun Lee, IDAS Hongik University, South Korea
Boram Park, IDAS Hongik University, South Korea

Brand identity design plays a significant role in brands. The brand identity needs to be changed appropriately in accordance with changes in business environment, technological development, etc. However, changes in brand identity do not always lead to satisfactory results, sometimes the consumers' reactions are confusion or rejection. Brand identity is the emotional bond that connects consumers and brand. Changing brand identity cannot only be costly and time consuming but also harmful to a pre-existing brand image. Therefore, successful change of brand identity is significant. In this study, I analyze precedent studies of successful cases and extract the conditions of common success. Secondly, I analyze successful change conditions of brand identity and compare successful and failed cases. By doing so, the study proposes a more logical analysis methodology for brand identity change and explores the possibility of effective production of brand logo. This study examines what brands and designers need to know when considering a brand identity change. The paper proposes new approaches and considerations for changing brand identity. Also, it develops guidelines that discuss successful changes in brand identity.

Visual Design

Room 8	**Designing for Society**

Critical Design as Social Innovator: New Design Horizons for Future Societies

Manuel Muccillo, Sapienza University of Rome, Italy
Lorenzo Imbesi, Sapienza University of Rome, Italy

This paper is based on the assumption that today, as already happened in the past, there seems to be a need for a change in the way we approach projects, the design process, and above all what comes out from it, the final product. This paper is born from a mere observation that can relate different disciplines, by succeeding in grasping relationships through the outcomes that have arisen. The observation investigates how, in conjunction with particular historical events, such as some major economic crises, some of the design currents have always reacted actively and proactively. The attitude assumed is never remissive or renunciator, rather it is reactive, critical, and radical. The theme thus proves to be extremely actual at the very moment in which we find ourselves working. Only by recognizing the enormous opportunity this planetary economic crisis is providing us we will be able to orient ourselves towards a design not only responsible but, above all, oriented towards the creation of a major awareness through a critical attitude so that it can change direction on both ethical and social issues.

Design in Society

Razucha: A Social Innovation Design Project in the Southeast of Portugal

Paula Reaes Pinto

Antonio Gorgel Pinto

This paper focuses on a social innovation design project which is being developed in the village of Azaruja (southeast of Portugal). The objective is to build a co-creative object with the local people, based on the local natural resource - cork - that characterizes the landscape. Another key point is the importance of the labour activities related to cork that mostly characterizes the people and the place, which is understood in the present investigation in all its complexity, combining human, biophysical, geographic, economic, political, social, cultural, historical, and ecological dimensions. The object, a cork thermal covering for a bottle, resulted from a dialogical and relational engagement with an inter-generational group of locals through which it was found an interest for this kind of object because it is thought to represent their cultural heritage. Thus, the study begins with the concept of empathic approach, that is part of design anthropology, through which the engagement of local people in collaborating in the project is done. This is followed by the co-design and social innovation design strategies which were used in the production of the referred thermal covering, in other words, a holistic and sustainable methodology for the development of peripheral territories.

2018 Special Focus: No Boundaries Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

| 10:25-12:05 | **PARALLEL SESSIONS** |

The Engagement of Tradition, Industry, and Tourism: Safranbolu Ironworking within the Karabuk Iron and Steel Industry

Dilek Akbulut, Gazi University, Turkey
Ege Kaya Köse

Safranbolu, as a destination point on the Silk Road located in Anatolia, appeared as one of the cities where cultural transfer occurred by trade in history. Today, the historical city is a major touris destination which was added to the list of UNESCO World Cultural Heritage in 1994 for its traditional architecture. Safranbolu, which is connected to the Karabьk province, has experienced the effects of spatial transformations on its crafts. These transformations are triggered with the industrialization attempts of the Turkish Republic and the establishment of the iron-steel factory in Karabьk in 1937. Establishment of the Karabьk Iron and Steel Factory and the relationship between the tradition of iron crafting and the industrialization of production is the main focus of research. Safranbolu was a residential area on trade routes extending from the Mediterranean to Anatolia, where several craft activities were carried out. Craft also appeared as a major factor in spatial arrangement of the city center, with craft-specific divisions, locations, and guild bazaars. However, the increased interest in European products caused the trade routes to weaken over time. This change was accelerated by the law of removal of the guild system, which was introduced at the beginning of the twentieth century, and resulted in the decline of tradition of crafts in Safranbolu. The foundation of the Turkish Republic and the establishment of the iron-steel industry in Karabьk in the early republican era is another factor effecting the socio-economic conditions of Safranbolu. In this era, Safranbolu moved away from the production model of producing as much as it consumed and was faced with the disappearance of crafts due to transitions to different lines of business. While in the past craft was a major source of income, industrialization resulted in the decrease in the interest in craft products. In general, Safranbolu is known for its architectural heritage. While architectural heritage is preserved, craft culture is faced with an erosion and is about to lose its identity. In such circumstances, design can be a tool for continuing the link between craft and industry. This study analyzes the change in ironworking in the city of Safranbolu within the framework of culture, tradition, industrialization, and tourism after the establishment of the Karabьk iron and steel industry. The study handles the environmental impacts of state investments on regional development, crafts, and products. As two adjacent city centers, Safranbolu and Karabьk demonstrate opposite characters. Safranbolu is a historical attraction point with its architecture, while Karabьk is a symbolic province of industrialization endeavors. Even small-scale production workshops have been influenced by state investments in the development of industry in the republican era. As a result, heavy industry has led the economy to move from Safranbolu to Karabьk spatially. This spatial transformation resulted in the transformation of traditional crafts and products in the region. The study stems on this transformation, addressing design supports for sustainability of local production, adaptation of production techniques, and proper marketing for the transformed crafts and souvenir items for tourism.

Design in Society

Design Promotion in University and Business: A Strategic Teaching Methodology

María Alonso García, University of Cádiz, Spain
Luis Romero Cuadrado
Manuel Dominguez Somonte

This research designs and proposes a method to approach industrial design as an enterprise at the University level, highlighting student motivation and relation with companies. The comparison of national and international reports makes clear that industrial design is a positive tool for an enterprise's economic growth. However, according to the quantitative information available, which considers the link vital to social and industrial levels and economic and political matters, we can affirm that Spain hasn't understood the binomial "Design and Enterprise" the same as other countries. This fact is partly and directly responsible for the weakness of Spanish SMEs (small- and medium-sized enterprises) and those from countries with a similar situation to our country. The incorporation of industrial design into enterprise is developing too slowly, despite Industrial Design and Product Development Engineering Degrees being taught in more and more Spanish universities. This means that graduates are not being incorporated into positions related to their degrees. That's why this paper designs and proposes a teaching methodology for these degrees and other related degrees, so it will support and favor the approach of industrial design to enterprise, starting from the graduate and the university.

Design Education

| 12:05-13:05 | **Lunch** |

| 13:05-14:45 | **PARALLEL SESSIONS** |

| Room 1 | **Addressing Creativity** |

Creating Substance from Abstraction: Utilizing Creative Concept Statements in a Non-studio Course

Diana Allison, University of the Incarnate Word, USA

Research has shown students actively engaged, hands on, with their learning tend to understand information in a deeper manner than those who are passive (Ankerson and Pable, 2008; Wlodkowski, 2008). In a lecture course covering building systems, a tangible, "hands on" activity was needed to make the course content more meaningful and reinforce concept statement development introduced in previous courses. Concept statements are crucial for interior design students to understand but difficult to teach. The challenge was to create a concrete example of an abstract idea, from beginning to end, without being intimidating and then implement it. A local pet charity's fundraiser became the activity where teams of students were to create a dog house that the charity could sell. Students were able to stay focused on the project and the finished dog houses were true to their original concept. The physical space they built created the connection that reinforced the point of the concept statement and of the content in the building systems course. Students learned from their failures as well as their successes. Using a "hands on" project of this caliber in other courses can reinforce design concepts and allow for deeper understanding of subject matter.

Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

| 13:05-14:45 | **PARALLEL SESSIONS** |

Sparking Creativity through Design Concept Development: An Inspirational Approach to Creating Effective Spaces

Angela Bourne, Fanshawe College, Canada
Sandra Reicis, Villa Maria College, USA

This paper will help design teachers teach students how to develop creative design solutions. The focus of this paper is on how concept development can stimulate inquisitiveness, exploration, and direct decision-making for successful designs. Examples of teacher directed design concept development that took place in design studio courses (reflective practice) will be introduced. Various tenants of the interior design problem solving process and its complexities, including addressing pragmatics, function, codes, budget, and human factors will be examined given the complexity and vigor the interior design process entails. The authors believe that it is the concept that takes a design from pragmatic to poetic and that carefully developed concept development has the ability to elevate design solutions, often taking them from banal to beautiful and making them relevant, competent, memorable, pertinent, and desirable. When applied effectively concept development can be a method for challenging norms, subsequently creating innovative result that are greater than the original intent. With the premise that designers are equipped with tools to enhance one's surroundings there is a greater potential that effective and responsible design solutions will enhance the profession and contribute to the greater social economic fabric of our society at large.

Designed Objects

Search for Being Creative Within

Vasudha Karhadkar, MIT-ADT University, India

Creativity is an inherent quality in all of us. We are born creators. Only some of us use it to its full potential while for others it may remain dormant. If so, then the question arises as to how some people are born artists/hence are considered to have the skills and sensorial aspects developed to become an artist. Do our senses play a role in being creative? Are designers/artists comparatively more sensitive in empathising, emotional, feelings, more observant? How do we identify ourselves to be an artist/designer or related to a relevant field? Can creativity be taught like any other subject is a big question? Does creativity has to do something with your background, upbringing, and culture. Does the environment around you help you develop to become a creative person? Is there a possibility of someone being born in a non-creative environment and yet be very creative person and vice–versa. Creativity is said to be related to the soul. So, does your past life also affect your creative thinking? If so, it is Atma the soul which takes rebirth and hence does it carry forward the creative thoughts through next births if born as humans? Does the nature have effect on your creative thinking? Does it have anything to do with being meditative? How do the experiences make a person creative or destructive, external factors affecting the creativity of an individual? This paper opens up a platform for discussion on whether it is possible to tap creativity at the right time, nurture it, and give it the right environment to grow and the possibilities of inculcating appreciation of Art in people to be more creative.

Design in Society

Design Teaching for Us: Practices Methodologies in Design Teaching

Cátia Rijo, IADE/UNIDCOM, Portugal

This paper introduces a collaborative project based on the promotion of interdisciplinary dialogue on formal, informal, and culturally plural learning, considering educational practices and design alternatives for the standard non-participatory model, in the classroom. Centered in the field of teaching and research in design, this research develops efforts towards the analysis of the modus operandi and the results obtained by adopting the methodology of the design process in the educational field, in particular in design education. Signed in collaborative processes, we will characterize the action developed by the interdisciplinary dialogue in formal, informal, generational, and culturally plural contexts. The research assesses the importance of applying less conventional methodologies in design teaching, as well as the perception of how an immersive learning context can be a facilitating tool for learning, fostering creative thinking, and generating new ideas and future paths to the problem in question. Forged in the parallelism with the methodologies used in the real context and adapting them to the teaching-learning process, this project is based on pedagogical tools drawn from the constructive reflections elaborated either from the action of teachers and students in a real context, from surveys of students and key players in each of the proposed projects, or from the moments of formative evaluation of students and teachers. The experience of design teaching that it intends to propose is characterized by the multidisciplinary of its actors.

Design Education

| 13:05-14:45 | **PARALLEL SESSIONS** |

Room 2 — **Visual Design Dynamics**

Principles of Design and Pictorial Composition: Ancient Storytelling Panels and Sculpture Elements at the Caves of Ellora in Maharashtra, India

Niranjan Mhamane, Studio Niranjan Mhamane, India

Ellora in Mharashtra, India is one of the largest rock cut monastery temple complexes in the world and a UNESCO world heritage site. These caves showcase extremely wide variety of art in the form of architecture, sculptures, reliefs, and other monuments dating from the sixth to seventh century A.D. to the eleventh to twelfth century A.D. When one stands in front of these large-scale reliefs depicting various mythological stories or some of the design elements like figurines, columns, or motifs, it is immediately sensed that these works have deeper layers of thoughtful and meaningful design strategies. They showcase amazing arrangements in complex geometrical and systematic space design strategies. In many examples it is also observed that great attention is given to the aspects of forms, where natural light falling on these works create even more dramatic and theatrical impact. It can also be observed that there is a great attention to space divisions and geometric simplification at the designs of columns and motifs. These examples showcase the evidence of sophisticated artistic and visual design strategies. Through this study I discuss the ideas of principles of design observed in some of these works. Also, I am decoding the geometric arrangements behind these space divisions in order to understand how they were visualized. This study will provide an understanding to the methods and approaches to handing space used by ancient designers. This study will also provide an opportunity to observe similarities between modern principles of design and design strategies present in these ancient Indian works.

Visual Design

Color Value in Space-Time

Moon Jung Jang

Color Value in Space-Time color can be a narrative and a metaphor of the world. With the sense of space-time, color is not only a visual representation of objects but also a phenomenon to bring a memory of the space-time, which becomes a story. This fact that color represents space-time makes it more essential when designers and artists convey messages and meanings of the objects in their work. In the process of perceiving and understanding color in one's mind, it involves a metaphor to translate one thing to another, and this process is also a behavior of narrative. In other words, color properties such as hue, value, and intensity are the key to narratives because of their metaphorical natures. Among those color properties, I believe that the value of color, its brightness and darkness, is the most effective element to build dynamic narratives because the value of the color can create endless movement along with space-time changes. This study investigates how color value evokes metaphors and how it becomes a story in its interactions with other visual components of a story such as a form, structure, type, direction, and sequences. In its interactions, one experiences a wide range of metaphoric techniques achieved by the color value such as visual synecdoche, simile, and allusion as they are experienced in literature. This paper focuses on my work with narratives and metaphors mainly visualized by color value in a series of tonal studies: A Sequence of Gray, A Sequence of C, M, and Y and various color narratives of objects in The Metamorphosis of a Minor Arc I, The Color of Athens Weather, and Relative Social Energy in 2038.

Visual Design

Comparing the Effects of Color and Shape on Children's Preference of Package Design in a Cross-cultural Context

Dan Zhang, City University of New York, College of Staten Island, USA

Package design significantly influences children's product preferences and purchase intention. Although previous research suggests that both package color and shape have strong effects on children's preferences of package design, little research has explored which factor may be more influential when color and shape are simultaneously presented to children as two common attributes of packages. This study addresses this gap and compares the effects of color and shape on children's preferences of package design in a cross-cultural context. Hypothesis one states that the effect of color on package design preference will be greater for younger children (age three to six) than for older children (age seven to eleven); the effect of shape on package design preference will be greater for older children (seven to eleven) than for younger children (age three to six). Hypothesis two states that the effect of package color as compared with package shape will be greater for boys than for girls. Hypothesis thee states that the age difference in the effect of package color will be greater for girls than for boys. Two separate 2 (color) x 2 (shape) experimental surveys were conducted in urban areas of China and the U.S. With parental consent (and/or teachers' consent whenever applicable) obtained, data were collected in different locations (camps, museums, and schools). Each participant received a small surprise gift for participation. In total, 837 valid responses and 761 valid responses from children between three and twelve years of age were collected in China and the U.S. respectively. Two separate logistic regressions on the datasets from China and the U.S. were conducted, with dependent variable (DV) of choice by color or shape and independent variables (IVs) including age group (three to six years vs. seven to twelve years), gender, and the interaction term of age group x gender. The age effect was consistently found for both China and the U.S. ($p = .008$ for China and .026 for U.S.), supporting the prediction of H1. Nevertheless, gender effect and age-gender interaction were revealed for China only ($p = .042$ for gender and $p = .037$ for age group x gender interaction). Neither of the effects was found for the U.S. Therefore, H2 and H3 were only partially supported. This research makes two theoretical contributes. Firstly, we find that younger children are more dependent on color when deciding on their preference of package design. This seems universal between Chinese and U.S. children. Secondly, the results of this study reveal significant cultural differences regarding gender effect and age-gender interaction. U.S. boys and girls show neither gender difference nor age-gender interaction. By contrast, Chinese girls tend to rely more on color as compared with Chinese boys; and the age difference in the effect of color on preference of package is greater for Chinese girls than for Chinese boys. The findings of the research also provide significant insights for designers. Firstly, designers should focus more on color when designing packages for younger children (age three to six) and also consider shape when designing for older children (age seven to twelve). Secondly, designers should be cautious of cultural differences when designing for different markets. If the package design is targeted at U.S. children's market, designers should concentrate on age differences as mentioned above. However, if the target market is Chinese children, designers should be mindful of differences due to gender-age interaction. Specifically, attractive colors would be most effective in affecting younger Chinese girls' preference of package design (three to six years) but least effective among older Chinese girls (seven to twelve). This age difference does not show among Chinese boys of three to twelve years in age.

Visual Design

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March

13:05-14:45	**PARALLEL SESSIONS**

Information Design as Integrator

Erin Moore, University of Georgia, USA

One way of understanding the field of information design is to acknowledge it as an integrator of many disciplines for the purpose of enhancing data clarity. This case study involves a multidisciplinary approach that encompasses design, statistics, and journalism to represent the systems of small, community-based businesses. It combines work in a graphic design studio with fieldwork in the local community and introduces various data collection and graphical representation methods. The study was developed in three stages. First, students chose local businesses and analyzed them using journalistic research. Next, they organized the information in an Excel spreadsheet and searched for meaningful patterns and relationships using statistical procedures. Finally, they were introduced to an array of digital tools, which allowed them to explore the graphical representation of their data sets. The outcomes integrated number, text, and image to represent customer demographics, flow of traffic, product placement, sales data, and relative location. Some of the strongest examples revealed human-centered design issues. For example, observing trends in how customers move through the store led students to acknowledge a successful use of space, or propose alternatives. By participating in this study, students were able to understand how the successful representation of data relies on fluency in more than one field of study. Through a kind of data journalism, they discovered and reported on the various dimensions of their chosen business. Students wore the hat of statistician in order to organize and analyze complex datasets. The considerations of a designer, such as color, composition, and typography, were integral for presenting statistical information in a clear, accessible way. A final example of information design as integrator is reflected in the use of the local community as laboratory. The activity of data collection on-site supports strong design outcomes and bridges the gap between the classroom and the real world.

Design Education

Room 3

Design Transforming Society

Path to Success Quest: Using Design Thinking to Create a User-centered Experience to Prepare High School Students for Adulthood

Sara Niccum, Ball State University, USA

Victoria Meldrum, Ball State University, USA

Jennifer A. George-Palilonis

A survey of 165,000 high school students reveals that less than half feel confident in their readiness for college or careers. However, studies suggest that students who develop realistic, positive perspectives toward personal responsibility and the future are more likely to feel prepared for adulthood. Although school-affiliated programs are useful for promoting career interests, barriers to enrollment exclude many students from those opportunities, especially if they are not academically-inclined and require remedial coursework. Furthermore, skill-based opportunities do not address elements of "psychological readiness," which include resilience in the face of obstacles and optimism about the future. Rather, influence from trusted adults has proven to be more effective than structured learning experiences when it comes to addressing psychological factors. In an attempt to assist high school students with goal formation and preparation for adulthood, an interdisciplinary team of experience designers developed a program called Success Quest, which is envisioned as a semester-long, semi-structured game that engages youngsters with community resources and interactive, digital experiences. Design thinking strategies allowed the project team to maximize efficacy by treating teenage users as experts and co-creating possible solutions with them to ensure human values were the central focus during the development process.

Design in Society

Graduate Student Lounge as a Third Place: Designing to Encourage Gathering and Place Attachment

Ahmad Alansari, College of Basic Educaiton, Kuwait

Developing interior design that meets human needs is one of the fundamental roles of interior designers. The study investigates the functions and activities of graduate students that take place in a graduate student lounge. This study develops and formulates the built environment of a graduate student lounge in a way that adequately satisfies students' desires and needs. The study was conducted among three hundred (N=300) graduate students at Texas Tech University in the United States who were administered an online survey to obtain the needed information. Participants were recruited through their university emails. The study employed both quantitative and qualitative methods. Its findings showed that students' preferential third places to spend time were a coffee shop, the university library, a restaurant, a friend's place, and the gym. The main expected activities at the graduate student center were doing school assignments, eating and drinking, taking a nap, and having a small party. Graduate students considered the most essential facilities to be the labs, study rooms, couches, sleeping areas, dining rooms, and kitchenettes. Based on the findings of this study, an interior environment for the graduate student lounge was designed and proposed to the graduate school administration. This paper brings together practical information that can help in designing student centers that accommodate student needs.

Architectonic, Spatial, and Environmental Design

Wednesday, 7 March	
13:05-14:45	**PARALLEL SESSIONS**

Use of Design Principles in TRIADIC Game Design for Interactive Learning about Ergonomic Disciplines for Children

Aziz Maulana, *University of Indonesia, Indonesia*

Erfandy Muhammad, *University of Indonesia, Indonesia*

Abigail Panggabean

Naufal Arif

Virozza Bianca Jasmine, *University of Indonesia, Indonesia*

A game is one of the learning tools which are needed by every child and are an important childhood activity that helps children masters all developmental needs. We aim to educate children on the importance of safety and comfort with interactive learning in the form of a game. This paper proposes a better way to introduce ergonomics design principles to children age three to seven, especially in designing comfort and safety living appliances in Indonesia regardless of the variance of the demography. The method used to construct the game is TRIADIC Game Design which helps us to balance the aspect of reality, meaning, and play in the game itself. In designing the game, we will be applying a design principle called ARCS (attention, relevance, confidence, and satisfaction) to model a motivation to facilitate children's learning. ARCS emphasize the relationship between educational objectives and challenges that the game activities share with the educational tasks being implicitly undertaken. The result shows that a game can boost children's interest to learn more efficient and effective, we evaluate the effect of this game by using questionnaire. The output of this research contributes to help raise the awareness of safety and comfort for children.

Design Education

Sustainable Design Education for Elementary Schools: Interdisciplinary Development of New Educational Models through Design Thinking

Martin Luccarelli, *Reutlingen University, Germany*

The ability of today's students to preserve their own creativity when they enter their professional career has grown in importance due to fundamental changes in the economy and society. It is however key to understand how design can contribute to educational change to favor the skill of creating novelty in the early stages of education. Within an interdisciplinary workshop, teams made out of chemists, computer scientists, designers, and engineers were asked to design new teaching tools to foster children's natural ability to "ask why" in their search for learning how to "think and create" in a sustainability framework. Following the design thinking methodology, a kick-off meeting presenting results of an international quantitative survey involving elementary school teachers as well as talks addressing the topics of user-centered design approach, design and sustainability, and sustainability and education provided participants with key input to define their point of view. Concepts designed by each team exhibited a comprehensive solution resulting in both the abstract idea surrounding education as well as physical embodiments of the tools. Their outputs included products, interior concepts to be implemented in classrooms, exercises as well as games to support the newly developed educational models. Future work will involve testing the concepts in German elementary school environments.

Design Education

Room 4	**Methodological Approaches to Design**

Two Blind Spots in Design Thinking: Portraying Designers' Singularity with Practical Insights from Cross-disciplinary Innovation Projects

Estelle Berger, *Strate School of Design, France*

Frédérique Pain

From the 1980s, design thinking has emerged in companies as a method for practical and creative problem solving, based on designers' way of thinking, integrated into a rational and iterative model to accompany the process. In companies, design thinking helped value creative teamwork, though not necessarily professional designers' expertise. By pointing out two blind spots in design thinking models, as currently understood and implemented, this paper sheds light on two rarely described traits of designers' self. The first relies in problem framing, a breaking point that deeply escapes determinism. The second blind spot questions the post project process. We thus seek to portray designers' singularity, with practical insights from cross-disciplinary innovation projects, in order to stimulate critical reflection and encourage the opening-up to design culture. Companies and organizations willing to make the most of designers' expertise would gain acknowledging their critical heteronomy to foster innovation based on strong and disruptive visions, beyond an out-of-date problem solving approach to design.

Design Management and Professional Practice

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

| 13:05-14:45 | **PARALLEL SESSIONS** |

Design Methodologies for Bridging Science, Technology, and Industry: A Graphene-Centered Case Study

Blanca Guasch, ELISAVA Barcelona School of Design and Engineering, Spain

Javier Pena,

Sergi Corticas,

Marta Gonzalez, ELISAVA Barcelona School of Design and Engineering, Spain

Graphene, its first isolation and its properties at the nanoscale have changed the paradigm established by the laws of physics and opened the door to new, previously unheard of industrial applications. Graphene has also been a turning point in nanoscience and nanotechnology, which has led to the creation of many technological centres dedicated to this field. Currently these materials are being studied in scientific communities, but most companies and individuals still do not know about their existence and/or potential. Our main objective is to fuse this scientific and technological knowledge with the main sectors of the market and industry (construction, food, energy, transport, and health) through design methodologies. For this purpose, we have carried out a case study using design thinking strategies to achieve understanding and innovation. This case study consisted of five "Graphene Days," each of which was related to a different sector. These days consisted of a series of lectures in the morning, followed by a creative workshop to innovate with graphene in the afternoon. They allowed for the connection of scientists with businesspeople, obtaining knowledge transfer and interactions between both worlds. From a design point of view, these sessions generated sectoral maps that reflect new opportunities for graphene in the market, and foreshadow the future of this nanotechnology. The method is applicable to other fields of science and technology, and here we see the evidence of the importance of design methodologies to communicate science, technology, and industry.

Design Management and Professional Practice

Responsive Design for Industrial Craftsmanship: A Multimodal Thinking and Collaborative Process

Alex Coppola, Sapienza University of Rome, Italy

The research investigates the relationship between design and craftsmanship in the new era of digital fabrication. How has this era transfigured the knowledge and workflow exchanges between designer and craftsman and overturned the roles in which craft no longer serves design, but design supports craft. There is also an ethical reflectivity in this change of scope and a new awareness of social responsibility due to an increasing use of rapid manufacturing technologies that are gradually replacing and refocusing the traditional industrial processes and enhancing a serial differentiation, much more near to the tailor-made market. The result is a multimodal discourse in which the designer's critical thinking, to plan and project any problems in a single abstract solution, is embedded with the craftsmanship critical experience, that acts more like a step-by-step process, mutating completely the two traditional workflows and merging them at a meeting point, overpassing any boundaries between the disciplines. This new kind of design modality emerges from a close observations of the artisan techniques and then is embedded in the design process thanks to flexible and accessible tools of multimodal thinking, in which the consciousness and creativity of the artisan work is crystallized in a responsive process, able to iterate all the possible solutions.

Design Management and Professional Practice

| **Room 5** | **Acquisition and Application of Knowledge: Design and Learning**

Reflection on the Development of Architecture Students' Visual Capacity: The Interface between Textual and Pictorial Languages

Débora Andrade de Oliveira, Federal University of Rio de Janeiro, Brazil

Although the design skills and mastery of geometry, its applications, and other forms of expression and representation are embed in the foundation of architectural knowledge, the majority of the students have a lower than expected capacity in the academy and the labor market. In order to understand and seek an alternative to this situation, this study introduces the operational possibilities for a composition of the architectural object through the interface between textual and pictorial languages, in order to improve understanding, between the visualization and the architectural object's volumetric manipulation, centered in the composition of the architectural form. The research involved in this study analyzes the three-dimensional architecture language of the students, in order to stimulate the eye for more embracing design procedures and to understand the articulation and design operations. In the order to do so, the study refers to a critical reflection, from a coded visual rhetoric, on the ability to imagine and represent objects bi- or three-dimensional and, consequently, to generate and organize a space.

Design Education

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March	
13:05-14:45	**PARALLEL SESSIONS**

Exploring the Perspectives of Jury Members from Different Fields of Expertise in Industrial Design Competitions

İrem Dilek, *Middle East Technical University, Turkey*
Pınar Kaygan, *Middle East Technical University, Turkey*

In the last decade, the number of industrial design competitions in Turkey addressing industrial design students and young designers has increased significantly. The increase in the number, and the educational scholarships that are provided to the design students and young professionals, brought industrial design competitions into prominence among design promotion activities. In addition, design promotion activities that are organized with the aim of increasing visibility of industrial design profession in Turkish society and the industry, also carry significance in terms of bringing experts from various fields of expertise together. Jury compositions of the design competitions organized in the last years show that evaluation juries of competitions consist of experts from various fields. Despite the increased importance of industrial design competitions, little is known about them. This study examines this gap by exploring the perspectives of jury members from various fields of expertise in jury evaluations of industrial design competitions in Turkey. The fieldwork of the study consists of observations in evaluation juries of five design competitions and interviews with fifteen jury members. Based on the findings obtained from the fieldwork, this study offers three main conclusions in relation to the goals to be achieved with industrial design competitions; development of roles; and discipline-based representation.

Design Management and Professional Practice

Developing the Next Generation of Change Makers: The Innovation and Design Cooperative at Appalachian State University

Mark Lewis

Richard Elaver, *Appalachian State University, USA*

The Innovation and Design Cooperative (IDC) at Appalachian State University is an interdisciplinary initiative to foster innovation and creative problem solving throughout our campus. Rooted in design thinking and operating through multiple channels, we work to bring this approach to research, teaching, and new initiatives on campus. Through a discussion of the IDC, our paper will show how integrated learning modules related to design thinking, interdisciplinarity, and character/collaboration can be used to help students develop the necessary skills to become powerful change agents in the world. Secondarily, we show how the IDC can help break down academic silos, extend campus boundaries to cultivate external partnerships, provide a legitimate source of revenue generation, and offer the university community an innovation engine that supports strategic priorities. Our presentation will end with lessons learned and insights for building such programs across university campuses.

Design Education

Room 6   **Design Pedagogies: Teaching and Learning in the Design Professions**

Design Your Information!

Rozina Vavetsi, *New York Institute of Technology, USA*

Our lives are extremely saturated with complex information. For complex information to have value, it needs to be communicated with clarity, precision, and efficiency; it needs to be effective, "sense-making," and memorable. Information design is the multidisciplinary discipline that transforms data into meaningful, user-friendly, and easily-accessed information while making it visually pleasing; it's a synthesis of function, flow, and form. My paper concentrates on the current state of design education and the importance of information design as an integral part of the design curriculum. It showcases the dimly lit and almost unappreciated manifestations of graphic design, covers the most important visualization methods, and includes design case studies from the real world and the classroom. It also focuses on the variety of factors, requirements, and restrictions that lead to these designs, and attempts to highlight the skills necessary to generate the designs.

Design Education

Development and Implementation of an Early Introduction to Conceptual Design Class in Mechanical Engineering Curriculum

Gustavo Molina, *Georgia Southern University, USA*

A new course introduces modern concept-design methods to first-year mechanical engineering students in Georgia Southern University, USA. Since students at this college level do not have design experience or engineering science knowledge, the class follows a breakdown of the design process, the steps of it being sequentially applied in a student team-project to develop original design options for a needed product. The focus is first placed on customer needs, which are included and practiced by the quality function deployment (QFD) technique; QFD requires students to realize customers, to carry out market research for existing competing products, and to generate specifications and research constraints. The design sequence then leads students to application of some classic and modern concept-generation techniques (as Morphological Table, and TRIZ); concepts are then evaluated, and a final concept is realized as a result. The teaching is complemented by also presenting some classic and recent cases of challenging mechanical engineering designs, and analyzing them through technical description and reporting. Students in this class successfully acquire and practice the basics of concept-design methods, which will be further integrated in following design classes of the mechanical engineering curriculum, and ultimately culminate in a senior-level capstone design project.

Design Education

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Wednesday, 7 March	
13:05-14:45	**PARALLEL SESSIONS**
	Developing Studio Teaching Methodologies through Distance Learning in Lighting Design
	Stelios Zerefos, Hellenic Open University, Greece
	Theodora Antonakaki
	Conventional distance learning techniques are adjusted so as to include a studio-type educational method, for a varied background audience, ranging from architects and photographers, to electrical and computer engineers. The challenge met throughout the course is the integration of several aspects of distance learning, such as live meetings, online tutorials and forums, direct email correspondence, and video conferencing sessions to supplement or even substitute the absence of a physical design studio. The formulation of individual and teamwork assignments is considered essential during the course and is targeted so that students from different disciplines can actually cooperate to accomplish a lighting design project. The assignments are designed in such a way, so that they provide stimuli for each different discipline to complete the studio course. This benefits the whole class since common practices from different professions become evident as a tool for analyzing, designing, or presenting a design project. Assessment evidence is shown through the statistical results of individual assignments, as well as the graphic representation of the lighting design assignments.
	Design Education
	Within "Blurred Boundaries": Three Case Studies of Changing Pedagogies in Architectural Education
	Derya Yorgancıo lu, Izmir University of Economics, Turkey
	Today the boundaries of architecture, as a disciplinary and professional field, are blurring. Architecture more and more interacts with other fields in the planning, design, and production processes related with the manifold aspects of the built environment. This situation results in change in responsibilities, sensibilities, and roles of the architect in society. Since the content, methodology, environment, product, and participants of design/realization processes are changing, the teaching-learning methods and learning environments are re-examined. Alternative approaches in architectural education emerge in this condition of "blurring of boundaries." Academics point to the need for flexibility and adaptability of architectural curricula and the transferability of skills between different fields, which would enable prospective architects to work in multi-disciplinary teams, be equipped as specialists rather than generalists, and deal with the process, more than product, as research by itself. This study highlights the blurring boundaries of design by examining three practices as alternative approaches in architectural education, including live projects, digital production, and extra-curricular activities such as competitions, workshops, and summer courses. The study focuses on a number of case studies through the lens of the following questions: How do these alternative approaches respond to rapidly changing socio-political, economic, and environmental contexts of the twenty-first century? Do they contribute to architectural education as a "tool" or as a "methodological framework?" How do they characterize the "process" and the "products" of design? Do they help define "new relationships models" between actors engaged in design? In which ways do they change the teaching/learning experiences and environments?
	Design Education
Room 7	**Workshops**
	Synergistic Seven Elements of Human-centered Thinking: The Language of Observation
	Christina Bullard, University of Connecticut, USA
	As a Costume Designer (for theatre, dance, opera, and film), one must create a person from the ground up. To do this, one must intimately understand the character's personality and their relationship to their environment or world both in a physical and existential manner. As my career expanded to also include Fashion Design and Design Thinking, I found substantial cross-over in the creative processes involved in theatre design and commercial design and innovation. My interest in teaching led me to develop a methodology for a holistic analysis of people through detailed observation which I've dubbed The Synergistic Seven Element of Human-Centered Thinking. These elements include sight, sound, smell/taste, space, surface, service, and source. Our means of observation are multifaceted and can be viewed altogether as an interconnected language. Once that language is understood, it becomes a tool for creation and innovation. I've used this method both for training marketing students as well as theatre designers. Using the Synergistic Seven Elements of Human-Centered Thinking, the audience will be led through a series of question and answer exercises involving the observation and analysis of different groups of people and their relationship to their environments. The audience will then apply their new found knowledge in a design exercise.
	Design Education
14:45-15:00	**Coffee Break**

Please see the announcement board by the conference registration desk for any changes or additions to the above schedule.

Wednesday, 7 March	
15:00-16:40	**PARALLEL SESSIONS**

Room 1 | **Industrial Design Education**

Anthropometry and Ergonomics, from Lecture to Lab: Rethinking Anthropometry in Industrial Design Education
Rusty Lay, Auburn University, USA
Anthropometry, a required course within the School of Industrial Design at Auburn University has recently undergone a restructuring, strengthening the communication and comprehension of the course material. This paper outlines the changes, and the early outcomes of this restructuring. The anthropometry course has traditionally been taught as a lecture. For an industrial designer, often an active learner by nature, a traditional lecture method of teaching can be an insufficient and inefficient way of communicating visual and tactile information. It has been shown that the lack of timely application or experimentation utilizing the taught material can be detrimental in the understanding, retention, or future application of that information. The recent development and addition of a weekly lab introduces deliberate and appropriate active learning into the anthropometry course providing tactile learning that enables meaningful relationship, and therefore comprehension, engagement, and retention of the presented information. The hope is, and early evidence has shown, that the development and addition of the weekly labs that support each lecture could potentially provide a unique and beneficial addition to the industrial design education.
Design Education

Impact of Design-related Workshops as Extracurricular Activities on Industrial Design Students' Educational and Professional Development
Zeliha Didem Yanpar
Pınar Kaygan, Middle East Technical University, Turkey
The last couple of years have witnessed an increase in the number of workshops related to design, which are organized as extracurricular activities for students. Despite the rising interest and participation of industrial design students in these workshops, we do not encounter any systematic research focusing on this subject. Addressing this gap, this study captures the overall picture of industrial design students' participation in extracurricular design workshops. This study is particularly interested in their motivations for participating in these workshops as well as their expectations with regards to their education and professional development. Two research methods were employed to collect data from industrial design students from five universities in Turkey. At the first stage of data collection, descriptive questionnaires were completed with 315 students to understand the overall level of participation in workshops. At the second stage, semi-structured interviews were conducted with 26 students who have a particular interest in workshops. The findings of this study show that students have various expectations from workshops in relation to their both educational and professional development.
Design Education

Room 2 | **Addressing Spatial Dynamics**

Identifying Effective Factors in Life-giving Events Formation and Their Reflections in Lived Space
Fatemeh Amirian, Islamic Azad University Central Tehran Branch, Iran
Zahra Azami, Islamic Azad University Central Tehran Branch, Iran
Architecture is a kind of space-time art and, as a space container and background of the current events of life, is tightly related to people's lives. Each person in his life sometimes was in environments which had special kinds of vitality, spirit, and energy; although, they had primary physical structures. This issue is mainly due to the events that take place in the space or is still in flux and affects the space by generating, defining, and giving life to it. However, the need for creation of life and living in space by the current events in space has often been forgotten in architectural design process. Because, factors shaping it, are hidden and in many cases non-physical. They are also defined in various different levels. This study examines life-giving events as one of the soft infrastructures shaping the space and also effective factors in the formation of events by focusing on cultural events. The results indicate three levels of life-giving factors: features, capabilities, and providing opportunities through these events.
Design Education

Spaces for "Real" People: Residents' Responses to St. Catharines's Revitalized Downtown
Mike Ripmeester, Brock University, Canada
Over the last three years, the downtown of St. Catharines, Ontario has seen the material fruition of its Creative Cluster Master Plan. The downtown is now home to a multi-venue performing arts centre, a spectator facility, a new downtown campus for Brock University's Fine and Performing Arts Faculty. Though the plan often makes reference to the City's residents, it does little to address local needs or desires. During the summer of 2014, I surveyed over three hundred St. Catharines residents in order to gauge their response to their new downtown. The results were surprising. Though few participants attended live sports or live performances, they supported the construction of the facilities. However, when asked what would make them spend more time downtown and if they thought this was a good use of their taxes, the results were very different. This paper explores these responses.
Architectonic, Spatial, and Environmental Design

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Wednesday, 7 March	
15:00-16:40	**PARALLEL SESSIONS**

Five Biophilia Principles: Distilling from the Source
Roberto Rengel, University of Wisconsin - Madison, USA
This study examined five patterns developed by the Terrapin Group (Browning, Ryan, and Clancy, 2014) to ascertain their relationship to user preferences and use patterns. Specifically, the study focused on Terrapin's categories of complexity/order, prospect, refuge, mystery and risk/peril. The study included systematic observation and analysis of environmental qualities and user behavior patterns in six urban plazas in Madrid during a one-month period. The environments embodied biophilic conditions and were widely used. The sites were observed repeatedly at regular intervals. A two-step a priori coding process was applied to distinguish, first, overall themes, followed by the interpretation of specific patterns. Major questions looked at whether there was a discernible preference for sites that were more complex, whether people generally preferred refuge-type (over prospect-type) locations, whether settings affording a sense of mystery were more popular, and whether users are drawn to areas that offer the thrill of risk/peril. Although not representing conclusive evidence, these findings suggest the difficulty of generalizing theoretical positions such as people's preference related to the five patterns studied. It appears that responses change with different contexts. More systematic study in these areas would help us understand these important biophilic principles in more detail.

Architectonic, Spatial, and Environmental Design

In silico et in situ: Fauna Habitats in the Age of Voxels
Markus Vogl, University of Akron, USA
The manifestation of data into physical form occurs via digital fabrication in our most recent series "in silico et in situ: fauna habitats in the age of voxels," where we create a new ecosystem for animals and potentially augment their habitat. Currently the habitats include pollinator waterers, spider habitats (in form of glow up rings), and turtle basking platforms. We are currently developing a twenty-foot avian sculpture that will solely exist to support the habitat of the chimney swift species, a threatened bird species in the US. The work investigates the interplay of art, nature, and technology by contextualizing sculptural works and placing these sculptures into nature. The project serves as a breeding ground for a larger dialog about nature, culture, human intervention, design art, and technology. Providing the artwork in the public sphere, barrier free in nature, fosters this discourse.

Designed Objects

Room 3	**Cultural and Critical Studies on Visual Design**

Dynamics of Color as a "Cultural Interpreter" in Brand Design in India
Ranjana Dani, MIT Institute of Design, MIT ATD University, India
Brand design makes continuous demands from every new breed of designers. As a significant aspect of brand communication, colour palettes are seen to establish "visual impact and 'connect' with audiences" in the process of the creation and consolidation of brand value. Colour is in itself a whole dynamic language. Quantifying the value of colour and its multi-layered role to create visual and psychological impact is a challenging area of research today, since its intangible experience may not be possible to quantify. However, there have been some definitive indications from studies done by design strategists, designers and colour analysts/ forecasters that help to fathom the aspects that affect the selection of effective colour solutions for brand design problems and generate inspiration for "colour selection" processes. The analysis of "visual design strategy" provides an understanding of factors that determine the appropriation of colour palette selection. Studies on "colour perceptions" in India have provided an interesting observation that local and global ingredients blend to indicate a "dynamics" of a "glocal" colour choice, as being apt for Indian brands. "As aesthetics increasingly drive consumer purchases, colour is the easiest component to communicate a change. It is complicated, but emotive," said Latika Khosla, design director at Freedom Tree Design. Such case studies bring to light processes to evolve colour palettes that reflect the pulse of the times and inspire an innovative mind-set when evolving creative trends in use of color.

Visual Design

Symphony of Disciplines: A Fusion of Motion and Musical Art
Vanessa B. Cruz, University of North Florida, USA
This paper documents the collaboration of a motion graphics media designer, printmaker, and the Jacksonville Symphony. This collaboration explored new avenues on multiple levels: new repertoire in a new venue for new audiences in a fresh and engaging multimedia genre. The intimacy of a chamber orchestra juxtaposed with a visual art space and visual projection created a product that spoke to the audience in ways that were unattainable in a traditional performance hall. The inclusion of projection was not superficial, but rather an element aesthetically integrated with the music that enriches the artistic experience. Finally, collaboration between the talented artists and staff of the Museum of Contemporary Arts Jacksonville, University of North Florida, and the Jacksonville Symphony strengthen the bonds in the artistic community and facilitate creative development through the sharing of complimentary resources from some of the largest and most dynamic cultural institutions in Jacksonville, FL.

Visual Design

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| 15:00-16:40 | **PARALLEL SESSIONS** |

Finding Harmony: Where Design Intersects with the Visual Arts and Sciences
Sohee Koo
Laura Scherling, Teachers College, Columbia University, USA
With growing interest in technology, the boundaries between design, the visual arts, and the sciences continue to blur. The notion of "making" and "transforming" is evident in design practices, enhanced by interdisciplinary and collaborative inquiries and approaches. However, domains of design and the visual arts, and the sciences seem to be "siloed" and compartmentalized in institutions, studios, and commercial design and art markets. Today, what does it mean to be a designer? And what does it mean to create artwork? What does it mean to infuse these practices with scientific approaches? It can be argued that this question has persisted for centuries, as witnessed in the Bauhaus and the Arts and Crafts movement. As practicing designers, visual artists, as well as educators, we have been challenged by how studio thinking and design thinking can be combined in order to develop innovative ideas, create new works, and provide new learning opportunities for students. By assessing and reflecting on our own design and visual arts practices and teachings through reflections, interviews, and observations, we have conducted a series of pilot studies. This paper will discuss our early findings on intersecting ideas and approaches, which combine studio and design thinking. This research also looks at concepts and materials that draw from design, art, and scientific approaches in our professional studios and classrooms.
Design Education, Design in Society, Designed Objects

Toward Theorizing Temporal Behaviors of Arabic Letterforms for Time-based Artworks, Screen Media, and Computer Programming
M. Javad Khajavi, School Of Art, Design and Media, Singapore
During the past few decades we have observed a cultural shift from the dominance of static imagery to the supremacy of dynamic images. Today screen media have become unprecedentedly ubiquitous, and dynamic contents have dominated the twenty-first century's visual culture. One of the manifestations of this dynamic visual culture is the abundance of kinetic typography in all sorts of contexts. Today moving and transforming letterforms can be seen on the web, in various smartphone applications, on television and the cinema screen, and in different artwork. Artists, designers, and computer programmers routinely create text that displays temporal behaviors using various computer software, plugins, and programming languages such as PowerPoint, After Effects, Flash, CSS, JavaScript, and the like. While these computer programs offer useful tools that enhance the process of creating kinetic typography, they usually treat different scripts such as Roman, Arabic, Chinese, etc. in the same way and apply the same temporal events to text written in different scripts. Clearly, a script like Arabic is different from Roman not only in its form but also in morphology and structure. Therefore, it is crucial to understand and consider the specific features of Arabic writing when designing temporal events for text written in Arabic script. This paper proposes a number of temporal events that suit the specificities of Arabic script by analyzing the existing examples of artworks and calligraphic animations that use temporal calligraphy. The results of this paper are useful for artists, designers, and programmers who create kinetic text or develop computer tools for creating temporal typography.
Visual Design

| Room 4 | **Urban Design and Planning** |

Pier 70: Design through Collaboration
Guneet Kaur Anand, SITELAB Urban Studio, USA
The Pier 70 project highlights the transformation of an inaccessible waterfront site to a vibrant mixed-use neighborhood that honors its industrial legacy. With a public-private partnership structure and a deep investment of neighboring communities in the future of the site, the design process featured creative engagement with over 75,000 stakeholders. Engagement strategies included collaboration with a local artist to document the story of the place, hosting community events on-site to provide public access early, and a series of workshops and tours. Collaborators included architects, landscape designers, city agencies, engineers, and various community groups. The Pier 70 Design for Development document, featuring detailed architectural and public realm design frameworks, was unanimously approved by the San Francisco Planning Commission and Port Commission. The Pier 70 project is slated for construction in 2018. Talking through my experience as urban designer for Pier 70, I would highlight key takeaways of a collaborative design process and its added value to complex and long-term urban projects.
Design Management and Professional Practice, Architectonic, Spatial, and Environmental Design

Veg-hive: Product and Service to Overlap the Boundaries in between Natural and Artificial in Urban Contexts
Erminia D'Itria, Sapienza University of Rome, Italy
Loredana Di Lucchio, Sapienza University of Rome, Italy
Urban agriculture is a rising phenomenon, but the idea of growing food in cities is not a new one. Farming has been practiced in urban areas for millennia. In the past, it happened often for necessity or to gain a food security against sudden food scarcities. Nowadays these are not valid motives anymore. The increasing interest in this activity is attributable to other issues: healthy food access, saving green spaces, preserving air and water quality, and community engagement. People see it as a concrete and accessible opportunity to reconnect with a system that many feel far from them. Even if urban agriculture is rapidly becoming a big success, it can't still save our environment or food supply. The next step is comprehending if it is thinkable to amplify the benefits that urban agriculture currently provides to a small community to a larger one. As designers, our next challenge is to make people able to farm in their own spaces (houses, roof, common gardens). I really believe that urban agriculture is an area in which we can be crucial thinking and designing innovative solutions and let expanding its presence in the cities.
Architectonic, Spatial, and Environmental Design

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| 15:00-16:40 | **PARALLEL SESSIONS** |

Design Inspired by Nature: Comparative Study of Methods
Mayra Alejandra Morales Carmona, National University of Colombia, Colombia
Nélida Ramírez T.
Nature as a model evidence from fauna and flora: shapes, materials, textures, and colors, among others, allows us to adapt to context conditions and take advantage of resources to live. Nature generates human interest to observe, analyze, learn from, imitate, understand the reasons of its shapes regarding the functions, and visualize the answers that contribute to improving quality of life. Otherwise, the methods are defined as means used to reach an end. This paper evaluates six methods of design inspired by nature processes, making an emphasis in the analysis of abstraction referent aspects. The study discusses how the natural referents are worked out to extract main features or qualities and what are the procedures to find the essential essences or fundamental to implement from design. The methods are evaluated through variables that contributes to identifying types of focus, abstraction categories, and abstraction levels from morphological, functional, and structural attributes. The results obtained from this study are the basis of a proposal for a methodological tool that contributes to the processes of abstraction of nature, for the development of design elements.
Design Education

| Room 5 | **Social Awareness and Design Education** |

"Replacing Hate," Out of Necessity: Collaborative Efforts to Promote Student Design Advocacy
Doris Palmeros-McManus, University of the Incarnate Word, USA
Vicki Meloney, Kutztown University, USA
Recent events have America divided, and this division is filtering through society and onto our campuses, leaving many people despondent. As design educators, we have an obligation to communicate the power of design advocacy to our students. As citizen designers, we have the ability to organize low-cost, highly-effective events that will serve to bring the community together and will empower our students to use their creativity as a powerful voice in the world. Hate-the-Hate is a movement to counter hatred and anger with beauty and hope, started at Pennsylvania's Kutztown University by Vicky Meloney and echoed 1,500 miles in San Antonio Texas with Doris Palmeros at The University of the Incarnate Word. We created an inexpensive, four-hour workshop that brought together students, faculty, staff, and community members to create messages of hope and tolerance. The results were beautiful and the support was overwhelming. It was clear from the support of this event, that the community was eager to come together to stand against exclusion and show that our little towns were no place for hate. We would like to propose a presentation that will affirm the importance of educating our students with the power of design advocacy. We will share the results the on-the-fly design and the passion-driven work created during our events. This will demonstrate how design advocacy has the power to engage and propel students and community alike to find a voice. The future design student will need all the tools in their creative arsenal to help shape the world they want to live in. By cultivating conscientious students and involving them in community efforts we are helping them make connections that could produce innovative visionaries.
Design Education

Could Applying Ethics to the Design Process Kill the Magic of Uncertainty?: Exploring Ethics in the Path to Empathy, While Teaching the Design Process
Maria Paula Baron Aristizabal, University of the Andes, Colombia
Margarita Echavarria
New approaches to the pursuit of design insights create a fog around what is right and what is wrong in the design practice. For students it is getting harder to make informed decisions on specific actions and even harder to know and reflect on how they get closer to people. During our course Empathy Lab, we introduce core concepts of research ethics to introduce the students to a personal academic appropriation based on admiration, commitment, and integrity. We invite them to inquire and identify key moments during the design process that challenge their moral and ethic ideas while working with people: such as using language, treating information, introducing themselves, interviewing, prototyping, and concluding a collaborative process. Finally, we invite them to propose activities that have the potential to help them become informed, decide, and practice tasks that incorporate a conscious and enjoyable way to include ethics in the design process. As a result, the students produce a toolkit that facilitates the integration of ethics that does not kill the magic of uncertainty. Can we co-create a common language with the community seeking for better understanding and empathy? Can we have specific activities that promote commitment of the design team and the community? Can we have explicit tasks that lead us to admire hidden features of the people we are working with?
Design Education, Design in Society

Empowering Knowledge of Cultural Design Authenticity and Inclusion through Basic Design Pedagogy
Analee Paz, Texas A&M International University, USA
This thesis empowers knowledge of cultural identity through basic design pedagogy. It describes educational methods that support learning formal elements of art and principles of design via indigenous design. In support of the evolving role of design today and the unprecedented connection of a multicultural community, it is important to recognize the intersection between intrinsic cultural design elements and formal fundamental design studies. This study serves as a specimen for investigating details of specific indigenous artisan creations with examples from Wixбritari, Sami, and Ainu designs. The concept was developed from observations of current art and design education, cultural identity and design inclusion, as well as established teaching theories that guide current pedagogical methods. The reflections considered through this research lead to the issue not solely of art and design, but of how to learn and teach art and design. By providing methodologies that organize this content, the discipline can have conscientious sources of information to begin with and build upon. Furthermore, it creates more well-rounded and knowledgeable interdisciplinary interests and empathy. This study acknowledges that art and design education and research should be geared towards addressing multicultural audiences with solutions that consider both the audience's and their own cultural orientation.
Design Education

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15:00-16:40	**PARALLEL SESSIONS**
	Children's Book as Change Agent?: Teaching Sequential Visual Narrative Assignments That Cultivate Tolerance and Inclusion Lisa Fontaine, Iowa State University, USA This case study introduces a graphic design curricular initiative that utilizes the narrative format of a children's book to broaden the students' opportunities to "design for social good." It identifies an effective alternate direction for designers seeking to impact society on issues of diversity and tolerance. In graphic design pedagogy, the children's book is rarely considered a framework for socially engaged design; more likely it might easily be disregarded for its overtly playful solutions. Yet, the children's book creates a profound opportunity to cultivate compassion and empathy in an audience that is both receptive and impressionable. Students write and design sequential narratives aimed at beginning learners, exploring social problems such as the refugees crisis and school bullying. They create expressive images that appropriately depict the seriousness of difficult story elements. By requiring students to act as both designer and author, the assignment ensures that visual and verbal aspects are holistically integrated. Students struggle to write about experiences of oppression, while using a voice that modulates these stories for innocent ears. Sensitivity to both protagonist and audience cultivates compassion and empathy as a requisite of good narrative design; this lesson in sensitivity can then later be applied to any designer/audience relationship. *Design Education, Design in Society*
Room 6	**Establishing and Breaking Boundaries** **Design as Alchemy: An Agent for Research without Boundaries** Ruta Valusyte, Kaunas University of Technology, Lithuania The paper gives a wider view of the term "design alchemy," which in recent scientific research is defined as an advanced education and learning practices developed into a comprehensive framework, which retains the original ideas of transforming "leaden" educational resources into "golden" learning moments. (Sims, R. 2014). In this paper, "design alchemy" is discussed as a particular "design approach" that should be defined as an advanced research approach that could act as an agent for interdisciplinary or "antidisciplinary" (Joi, I. 2017) way of conducting future research. Examples of design-oriented research activities conducted by different design researchers are discussed. The paper concludes with a synthesis and discussion of several important issues facing researchers from different disciplines as they pursue future work using the "design as alchemy" approach. The conceptual idea of how the future research "without boundaries" could be carried out is provided. *2018 Special Focus: No Boundaries Design* **The Banality of Excel: Orthography, Grids, Borders, Colonization** Christopher Lee, University at Buffalo, USA From the micro-scale of the pixel, to the earliest instances of systematized writing on ancient Mesopotamian clay tablets, and from the accounting ledger to the modernist partitioning of land with the emergence of American and French Republics, the grid has played a multi-dimensional role in the imposition of a graphical rationality on that which is otherwise radically contingent and negotiable. This paper discusses a variety of graphic design artifacts for which the grid has functioned to impose an epistemological discipline with regards to the production of normative expectations (the Gilbreths' motion studies), and the deflection of the (micro)political (double-entry bookkeeping). It considers a variety of grids for the way they bring the unfathomable under a managerial gaze (ISOTYPE), for making discernable the distinction between regularity and irregularity (International Typographic Style), and the production of colonial knowledge by which the plurality and polyvalence of Indigenous land, for instance, becomes legible, appropriable, and governable as property (the Jeffersonian Grid). This consideration of the grid destabilizes the alleged irreducibility, or perhaps inevitability, of the grid as an organizational foundation for visual space. Considering the contingent, political origin of the grid as a disciplinary technique—a tool designed to define, manage, and govern—it holds open a space in graphic discourse for engaging that which has largely escaped the scrutiny of graphic designers on account of its banality, and for considering other forms of visual epistemology as the formal basis of a graphic design pedagogy and practice. *2018 Special Focus: No Boundaries Design* **Neo-nature: Boundaries beyond Design with/in/for Living Systems** Derya Irkdas Dogu, Izmir University of Economics, Turkey This paper describes the motivation and intents of the experimental undergrad elective design course, "Biomaterials: Designing with Living Systems at Izmir University of Economics," which questions the designer's role in the Anthropocene age. This new educational initiative addresses the designers' role as an interspecies mediator that embodies ideas with/in/for living matter in a multidisciplinary work environment. We intent to challenge and expand the minds of future designers and to create a positive impact on the neo-nature design. In the previous two years, students were given practical exercises in order to understand the variables that influences spontaneous forms giving of biological systems and were challenged to test tools (as little invasively as possible) that would allow them to manipulate the systems, looking for ways to gain some control over the final form/material outcomes. This year's "play with your food" theme manipulates biological design growth processes of edible fresh ingredients to create a new food experience in collaboration between industrial design and food engineering students. Our intention is to contribute to the students' understanding of how and what influences form in a biological system, for them to gain some control over the final outcomes, and to instigate ethic "soft" skills that are part of designers' responsibilities as an interspecies mediator. This paper introduces an ongoing work-in-progress course structuring, where we indicate our diverse intentions, tools, setbacks, and outcomes in the quest to reimagine the disciplinary boundaries between neo-nature and design(er) when working with/in/for living materials. *2018 Special Focus: No Boundaries Design*

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Wednesday, 7 March

15:00-16:40	**PARALLEL SESSIONS**

More Than What the Eyes Can See: Questioning the Relationship between Architects and Visuality
Didem Kan-Kilic, İzmir University of Economics, Turkey
In the contemporary world, it is believed that vision is the primary sense to design a space. In this study, I conducted in-depth interviews with the architects Chris Downey and Carlos Mourao Pereira, who are the only two practicing architects without sight in the world. They have the fully-fledged experience of space both as a sighted and a blind individual; therefore, they tell about established boundaries in society as designers and how to learn a new sensory world. They believe that vision is more than just what the eyes see. They realized that the architectural experience is much more than just the aesthetics of it. Their vision for architecture is about making connections with people and making people come together more than designing beautiful buildings. These blind architects made me question the relationship between architects and visuality. If an architect loses sight, what remains to be a successful architect? Or, what is the role of sight in design? How can the aesthetic of a space be defined? These blind architects offer a more complete understanding of design and architecture and I explain different ways of seeing, thinking, and reading the environment.
2018 Special Focus: No Boundaries Design

Room 7 | **Design Practices Responsive to Human Needs**

Co-creation with Refugees for Refugees: Design Methods for Integrating Vulnerable Groups and Different Stakeholders in Innovation Processes
Ronja Ullrich, Fraunhofer Society, Germany
This paper addresses the poor medical care of refugees in German through inter- and transdisciplinary collaboration. That is why we started our project "Realizing Impact" funded by the German Federal Ministry of Education and Research to improve medical care for refugees in Germany. The impact of proposed innovations depends on how well they accord with the needs and values of the target group, the market, the legal regime, and the state of technological development. We contrived a design-driven process to assess needs, develop new ideas, and build a network to implement these ideas. We integrated different stakeholders and their strengths from the beginning. We included refugees as the main target group with their needs and wishes, going to shelters and listening to stories and experiences. To get a holistic view, we also included social workers, doctors, and players from the health system with their specific perspectives. We used a compilation of our design-based methods and tools that combine approaches from design and social sciences. For instance, we used non-verbal tools in the survey of needs to reduce language barriers and to gain deeper insights. Design methods were also central when we opened the process to other stakeholders and their expertise. Following this approach allowed us to integrate the diversity of perspectives, to gain a common understanding, and to develop new (and shared) solutions. To present the project and key findings about co-creation with and for refugees, the authors introduce the approach, share design-methods for co-creation, and discuss learnings and challenges.
Design in Society

Innovation in Architecture for Emergency
Beatrice Jlenia Pesce, Sapienza University of Rome, Italy
The current movements of migrants into and across Europe are calling into question our idea of boundaries. These significant flows have substantial impacts on geopolitical relationships, the economic and social sphere, but also directly affecting the spatial dimension, people's perceptions of cities. There is a pressing need for multi-sectoral responses to address the future needs, and indeed the opportunities for the real estate sector, of our changing urban populations. Urban planning and architectural design have to figure out solutions to respond to this global and local challenge in a creative and innovative way, indeed the migration crisis have created the conditions for experimentation. Across Europe, many policy actions have been approved in order to transform cities into places of hospitality and integration avoiding ghettoization. The challenge that immigration poses is to overtake the barriers inside the city fostering the integration and the social inclusion. This paper defines a series of urban development models of mixed occupation settlements that can foster the social integration. It will start from the study of spontaneous or planned temporary settlements and will give priority to those one that use industrialized building systems for emergency houses, so that it is possible their re-use at the end of emergency conditions.
2018 Special Focus: No Boundaries Design

Design beyond the Boundaries: Design Culture for a Democratic, Open, and Inclusive Society
Zoe Balmas, Sapienza University of Rome, Italy
The research identifies new moments of design intervention on the issue of migration, based on models that promote the preservation and mutual knowledge of the cultures involved, in a perspective of interaction and continuous enrichment. The research takes part in a debate the design community is already having, that is the discussion on the relationship between democracy and design, started in April 2017 with the open letter STAND UP FOR DEMOCRACY sent by E. Manzini and V. Margolin to the design community, with the aim of analyzing what opportunities, in design practices and topics, can get stronger the democratization processes. In this way, the issue of migration is placed in a broader framework, considering this phenomenon as one of the factors that is more questioning democracy in different countries. In a first phase, the research reflects on the relationship between local democracies and an idea of a global democracy based on concepts such as equality, respect for human rights, and fundamental freedom. This phase is analyzed through the data processing and the mapping of the results of a series of workshops, in which are involved international design students, reflecting on new possible design intervention fields. The paper describes the methodologies and tools designed for the realization of the workshops and shows the results obtained in particular in the workshop "Design for Migration," done at Sapienza University of Rome. The second phase of the research discusses the new competences and the new interlocutors of the designer who works on the new fields of intervention identified. The paper analyzes the definition of the role of designer starting from the reference bibliography to get a reflection on the new models. Through the analysis of some case studies, particular models of collaboration between designers and new potential buyers such as Non-Governmental Organizations (NGO) are also analyzed.
Design in Society, 2018 Special Focus: No Boundaries Design

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Wednesday, 7 March

15:00-16:40	**PARALLEL SESSIONS**
	Mapping the Skills of Migrants for Developing Social Innovation, Art, and Design Workshops: Two Case Studies around Lisbon Antonio Gorgel Pinto Paula Reaes Pinto Paulo Simxes Rodrigues Filomena Djassi The transdisciplinary work was developed by four researchers in the fields of socially engaged art, heritage, and design from the universities of Йvora-CHAIA (UЙ) and Lisbon-CIAUD (FAUL), as well as a professional and researcher from the Aga Khan Foundation in Portugal (AKF). The work stems from a set of projects developed and supported by the Foundation, alongside the aforementioned Universities, namely in the framework of the "Catapulta" and "Transistyrias" initiatives, under the responsibility of FAUL, and the "Mais Sul" action, which was idealised by the UЙ. These initiatives support migrant populations in the metropolitan area of Lisbon specifically in Oeiras and Sintra Municipalities. The main objective is to identify and map sometimes invisible techniques, arts, and crafts developed by migrants from their cultural heritage, to enhance crafts as a way to improve livelihoods and foster the creation of design workshops, contributing to the sociocultural participation of people but also to build social cohesion and local economic growth. The paper introduces the grassroots methodology for mapping, the relational and dialogical process, including the data collection process and tools resulting from the case studies. *2018 Special Focus: No Boundaries Design*
16:40-17:10	**Closing Session and Award Ceremony**

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Lee Zelenak	DePaul University	USA
Stelios Zerefos	Hellenic Open University	Greece
Dan Zhang	City University of New York, College of Staten Island	USA

XII Congreso Internacional de
Principios y Prácticas del Diseño

"Diseño sin fronteras"

Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona | Barcelona, España
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COMMON GROUND

Estimados participantes del Congreso:

¡Bienvenidos a Barcelona!

Esperamos que disfruten los siguientes tres días de debates, presentaciones y ponencias plenarias en la que se reunirán académicos, profesionales y facultativos para investigar el presente y el futuro del diseño.

Con el XII Congreso Internacional de Principios y Prácticas del Diseño, queremos estimular la reflexión sobre la desaparición de los límites entre personas, cosas, ideas y lugares ante las nuevas fuerzas de la evolución tecnológica, política y social. Con frecuencia, parece que perdemos nuestra consciencia sobre cuál puede ser nuestro futuro y nuestro papel y responsabilidad de participar en su construcción. ¿Cuáles serán nuestras identidades, necesidades o expectativas?

El diseño está situado entre las relaciones materiales e inmateriales. Así, los diseñadores pueden ejercer un papel privilegiado a la hora de responder estas preguntas, facilitando el debate, la reflexión y las acciones transformativas.

Este congreso pretende explorar el modo en que los diseñadores asumen un papel social y político definiendo nuestro mundo material. Hoy en día parece una gran responsabilidad combinar el nuevo conocimiento y el pensamiento crítico, así como la consciencia y la creatividad, para transformar a gran escala los problemas basados en las necesidades reales de la comunidad, que es dónde acontece la vida humana. Se debatirán las misiones y visiones emergentes de la educación, investigación y práctica del diseño —junto con el impacto económico, político y social—.

En términos generales, pretendemos que los académicos, investigadores y profesionales establezcan un debate sobre los modos en los que el diseño sobrepasa los límites establecidos entre culturas, disciplinas, normas sociales y tópicos políticos. El "Diseño sin fronteras" es el nuevo desafío: ¿Dónde y cuándo construimos implícitamente los límites, los deconstruimos explícitamente cuando actúan como barreras, o los edificamos de modo resiliente cuando son necesarios? ¿Cómo puede el diseño actuar dando voz a las personas para que elijan su propio modo de pensar y actuar, de modo que sean agentes del cambio dentro y más allá de los límites?

El congreso está organizado en Barcelona por ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona y por DESIS Lab ELISAVA, que está considerada como una de las instituciones de diseño más interesantes y creativas de España. Debe tenerse en cuenta para comprender el carácter del diseño en España: sus raíces, contexto profesional y la investigación en diseño emergente. La cultura española está a la vez en el corazón de Europa y en una encrucijada de múltiples influencias históricas, lo que la convierte en cuna de creatividad y vitalidad. En un tiempo en el que vemos formarse nuevas y viejas fronteras, el congreso de ELISAVA en España propone el tema del diseño que traspasa los límites para comprender las oportunidades que tenemos para posibilitar una innovación social de abajo hacia arriba, atravesando las fronteras y culturas.

Esperamos que encuentre de interés a los ponentes plenarios, que son los principales pensadores españoles e internacionales sobre diseño: Marti Guixè (Diseñador Industrial y de Interiores, Barcelona, España; Berlín, Alemania) expondrá un modo no convencional para entender la cultura de los productos uniendo la comida y el performance. Oscar Tomico (Jefe de Estudios, Grado Universitario en Ingeniería del Diseño Industrial, ELISAVA) se enfocará en el proceso de creación de servicios textiles inteligentes ultra-personalizados en forma de prendas suaves involucrando a las partes interesadas de la industria textil. Ariel Guersenzvaig (Profesor e investigador de ELISAVA) tratará sobre la teoría y metodología del diseño, servicios del diseño, ética del diseño y tecnología. Albert Fuster (Director académico de ELISAVA) y Ezio Manzini (Fundador de DESIS Network y Profesor honorario, Universidad Politécnica de Milán, Milán, Italia) se centrarán en "Diseño para creación de ciudades", un programa desarrollado por DESIS Lab ELISAVA y el Grupo Temático DESIS sobre Ciudades Colaborativas.

Adicionalmente, esperamos que pueda disfrutar de la sede del congreso y las actividades extra que relacionan el diseño, cultura, comida y vida en la ciudad. El congreso tiene lugar en ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, en el corazón de las Ramblas, 30-32, en Barcelona.

Finalmente, puesto que España es un crisol de culturas y un lugar para compartir diferentes ideas y potenciar la creatividad, esperamos que conecte y aprenda con las mutuas historias y expresiones ingeniosas.

Loredana Di Lucchio, Arianna Mazzeo, Lorenzo Imbesi
Presidentes del Congreso

Estimados delegados del Congreso de Principios y Prácticas del Diseño,

Bienvenidos a Barcelona al XII Congreso Internacional de Principios y Prácticas del Diseño. La Red de Investigación de Principios y Prácticas del Diseño fue creada para dar lugar a un foro interdisciplinar que explora el propósito del diseño junto con el uso de objetos diseñados y sus procesos. Es un foro que reúne a investigadores, profesores y profesionales para discutir la naturaleza y el futuro del diseño, traducido en conversaciones que oscilan entre la teoría y la práctica, la investigación y la aplicación, las prácticas del mercado y el idealismo social.

Los congresos son espacios de intercambio efímero. Hablamos, aprendemos y nos inspiramos, pero estas conversaciones se desvanecen con el tiempo. Por ello, la Red de Investigación ha establecido diferentes tipos de publicaciones con el fin de reflejar estas conversaciones y traducirlas en objeto de conocimiento. Les invitamos a presentar su investigación en la Revista Internacional de Principios y Prácticas del Diseño.

Common Ground Research Networks organiza la Red de Investigación de Principios y Prácticas del Diseño en colaboración con los editores y los socios de la Red. Fundada en 1984, Common Ground Research Networks está comprometida con la construcción de nuevos tipos de Redes de Investigación, es innovadora en sus medios de comunicación y tiene una visión de futuro en su labor. Common Ground aspira a ser un espacio de encuentro entre personas, ideas y diálogo. Sin embargo, la fuerza de estas ideas no consiste en encontrar denominadores comunes. Al contrario, el poder y la resistencia de estas ideas es que se presentan y se examinan en un ámbito compartido donde la diferencia tiene lugar —diferencia de perspectiva, de experiencia, de conocimientos, de metodología, de orígenes geográficos o culturales o de afiliación institucional—. Estos son los tipos de entornos académicos, vigorosos y solidarios, en los que se llevarán a cabo las deliberaciones más productivas sobre el futuro. Nos esforzamos en crear los lugares de imaginación e interacción intelectual que nuestro futuro merece.

Me gustaría dar las gracias a todos que han colaborado en la organización del congreso. Entre otros, al coorganizador, Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona, a los presidentes del congreso: profesora Loredana Di Lucchio de la Universidad de Roma La Sapienza, Profesor Lorenzo Imbesi la Universidad de Roma La Sapienza y Arianna Mazzeo de Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona; a nuestros colaboradores, DESIS Lab ELISAVA y DESIS Network. Asimismo, también me gustaría agradecerles a mis colegas de la Red de Investigación de Principios y Prácticas del Diseño, Jeremy Boehme, Sara Hoke, McCall Macomber, Tatjana Portnova, Helen Repp y Jessica Weinhold-Brokish, que han puesto mucho trabajo y esfuerzo en la realización de este congreso.

Le deseamos lo mejor para este congreso y esperamos que le brinde muchas oportunidades para dialogar tanto con colegas cercanos como de todo el mundo.

Atentamente,

Dr. Phillip Kalantzis-Cope
Jefe de Ciencias Sociales
Common Ground Research Networks

Nuestra misión

Common Ground Research Networks tiene como objetivo animar a todas las personas a participar en la creación de conocimiento colaborativo y a compartir ese conocimiento con el mundo entero. A través de nuestros congresos académicos y revistas revisadas por pares, construimos Redes de Investigación y proporcionamos plataformas para interacciones a través de diversos canales.

Nuestro mensaje

Los sistemas de patrimonio del conocimiento se caracterizan por sus separaciones verticales: de disciplina, asociación profesional, institución y país. Common Ground Research Networks toma algunos de los retos fundamentales de nuestro tiempo y construye Redes de Investigación que cortan de manera transversal las estructuras de conocimiento existentes. La sostenibilidad, la diversidad, el aprendizaje, el futuro de las humanidades, la naturaleza de la interdisciplinariedad, el lugar de las artes en la sociedad, las conexiones de la tecnología con el conocimiento, el papel cambiante de la universidad, todas estas son preguntas profundamente importantes de nuestro tiempo, que requieren un pensamiento interdisciplinario, conversaciones globales y colaboraciones intelectuales e interinstitucionales.

Common Ground es un lugar de encuentro para las personas, las ideas y el diálogo. Sin embargo, la fuerza de estas ideas no consiste en encontrar denominadores comunes. Al contrario, el poder y la resistencia de estas ideas es que se presentan y se examinan en un ámbito compartido donde las diferencias tienen lugar—diferencia de perspectiva, de experiencia, de conocimientos, de metodología, de orígenes geográficos o culturales o de afiliación institucional. Estos son los tipos de entornos académicos, vigorosos y solidarios, en los que se llevarán a cabo las deliberaciones más productivas sobre el futuro. Nos esforzamos en crear los lugares de imaginación e interacción intelectual que nuestro futuro merece.

Nuestros medios de comunicación

Common Ground Research Networks crea Redes de Investigación que se reúnen personalmente en congresos anuales. Entre congreso y congreso, los miembros de cada red también se mantienen en contacto durante el año mediante Redes de Investigación en línea, a través de procesos formales de publicación académica (revistas arbitradas revisión por pares), o ya sea a través de conversaciones informales en blogs. Los congresos fomentan el más amplio espectro de discursos posibles, animando a todos y a cada uno de los participantes a aportar sus conocimientos y perspectivas al debate común.

Red de Investigación de Principios y Prácticas del Diseño

Explorando la naturaleza, significado y propósito del diseño

La Red de Investigación de Principios y Prácticas del Diseño se forma en torno al interés común en el significado y objetivo del diseño. Los miembros de la Red de Investigación interactúan tanto a través de congresos anuales presenciales, como asimismo manteniendo el contacto online y mediante la revista con revisión por pares, lo cual está destinado a explorar las posibilidades de nuevos medios digitales de comunicación.

Congreso

El congreso se basa en cuatro principios básicos: internacional, interdisciplinario, inclusivo e interactivo. Entre los delegados del congreso se encuentran los expertos del ámbito y académicos emergentes de todos los continentes que representan un amplio rango de disciplinas y perspectivas. La variedad de posibilidades de presentaciones y tipos de sesiones ofrecen a los delegados diversas oportunidades para involucrarse, discutir los temas principales del ámbito y para crear vínculos con los académicos de otras culturas y disciplinas.

Publicaciones

La Red de Investigación de Principios y Prácticas del Diseño ofrece a sus miembros la oportunidad de entrar en el mundo de las publicaciones científicas de una manera distinta a los fórums de publicaciones académicas tradicionales. Esto se debe al carácter receptivo, no jerárquico y de naturaleza constructiva en el proceso de revisión por pares. La *Revista Internacional de Principios y Prácticas del Diseño* dispone del sistema de revisión de doble ciego, permitiendo a los autores publicar en una revista académica de alta calidad.

Comunidad

La Red de Investigación de Principios y Prácticas del Diseño ofrece varias posibilidades para mantener la comunicación entre sus miembros. Cada miembro puede subir los vídeos con presentaciones basadas en su trabajo científico a los canales de la Red de Investigación en YouTube. Trimestralmente los boletines de noticias incluyen las actualizaciones sobre los congresos y publicaciones, y asimismo ofrecen otras noticias de interés. Únase a las conversaciones en Facebook o Twitter, o explore nuestra nueva plataforma de redes sociales, **Scholar**.

Principios y Prácticas del Diseño | **Temas**

Tema 1: Formación en diseño

- Pensamiento de diseño: modos cognitivos y estilos de aprendizaje
- Métodos, estrategias, metodologías y tácticas de diseño
- Resolución de problemas: procedimientos de reconocimiento, desarrollo de hipótesis, procesos de razonamientos, prueba de soluciones
- El significado de la innovación y la creatividad en la teoría y en la práctica
- Residuos: aprender de nuestras experiencias históricas y contemporáneas del diseño
- Casos: estudios empíricos de prácticas de diseño
- Posiciones profesionales: adquirir las habilidades, capacidades y actitudes del diseñador
- Los métodos de observación, marcos de interpretación y los criterios para la evaluación del diseño
- Aterrizando la teoría en el día a día y teorizando lo empírico
- Concebir el diseño: la complejidad, hetereogeneidad y holismo
- Pedagogías de diseño: enseñar y aprender en las profesiones del diseño
- Ciencia y sistema tecnológico en diseño
- Diseños educativos: maestro como diseñador didáctico
- Diseño de artefactos y procesos como experiencias de aprendizaje
- Narrativas de diseño: historias y sensemaking en el proceso de diseño
- Puntos de comparación: precedente, analogía y metáfora en el proceso de diseño
- Análisis crítico en la evaluación del diseño
- Historia del diseño
- Diseño didáctico

Tema 2: Diseño en la sociedad

- El diseño en la política y planeación social
- Salud, seguridad y bienestar público en la práctica del diseño
- El diseño como un negocio
- Mercados para diseño y diseñar para mercados
- El diseño como un factor de producción, una fuerza económica: valorando "intangibles"
- El diseño de sistemas humanos y procesos culturales
- Diseño sin diseñadores: diseños cotidianos, aficionados, orgánicos y vivos
- Diseño ergonómico
- Diseño para la diversidad: cultura, género, orientación sexual y discapacidad
- Globalización y las profesiones del diseño
- Políticas del diseño: hacer tecnologías, espacios e instituciones más sensibles a las necesidades humanas
- Los fines del diseño: pragmático, estético y emancipatorio
- Lo humanístico y tecnológico: tensiones y sinergias
- Valores, cultura y sistemas de conocimiento en el diseño: el papel de la perspectiva, subjetividad e identidad
- Etnografía del diseño
- Diseño y acceso universal

- Psicología del diseño
- Sociología del diseño
- Estudios culturales: diferencia, diversidad y multiculturalismo en el diseño
- Encuentros transculturales: trabajar con equipos diversos y mundiales de diseño
- Nichos de mercado: trabajar con clientes y usuarios diversos

Sobre la naturaleza y forma de los objetos de diseño

Tema 3: Objetos diseñados

- Diseño industrial
- Ergonomía
- Cerámica
- Artes decorativos
- Ingeniería y diseño
- Moda
- Diseño de interiores
- Joyería
- Textiles
- Diseño de menudeo

Sobre representación y comunicación utilizando el medio de la imagen

Tema 4: Diseño visual

Diseño de comunicaciones

- Artes visuales
- Bellas artes
- Ilustración
- Fotografía
- Cine y video
- Diseño gráfico
- Tipografía
- Comunicaciones técnicas
- Diseño de telecomunicaciones
- Diseño de interfaz
- Diseño digital, de Internet y multimedia
- Animación
- Diseño de comunicaciones y medios de conocimiento
- Diseño digital, de software y de medios sociales
- Desarrollo de productos virtuales
- Diseño de sistemas de información y arquitecturas
- Copyright, patentes y otras propiedades intelectuales: exclusivas y comunes, comerciales y del dominio público
- Sinestesia o cruzando modos de representación: idioma, imagen, espacio y medio
- Modelado y representación: gráfica, simbólica, lógica y matemática
- Simulaciones de computadora y herramientas computacionales: concebir nuevos objetos y espacios

Tema 5: Gestión y práctica profesional del diseño

- Personas y artefactos: explorando los usos y la usabilidad
- Diseñando el diseño: desde la conceptualización a la especificación
- Metodologías multidisciplinarias e interprofesionales para el diseño
- Profesionalismo y sus trayectorias: ¿estrechando la especialidad o multihabilidades?
- Evaluación, juicio y toma de decisiones en contextos complejos
- Trabajando con investigación e investigadores: profesionales del diseño tales como investigadores o usuarios de la investigación
- El negocio de la velocidad: la economía y la pragmática de la entrega rápida y el diseño junto a la construcción
- La lógica de la colaboración: interactividad, capacidad de respuestaa y reflexividad en las comunidades de la práctica
- Codiseño: diseñar con usuarios
- Comprensiones públicas y profesionales del papel del diseñador
- La democratización de diseño y la responsabilidad pública: consulta y desarrollo de consenso
- Diseño evolutivo: colaboración en el tiempo
- La experiencia como facilitación: los diseñadores que saben lo que podrían no saber
- Sistemas de diseño participativo
- Metodologías de gestión de proyectos y procesos
- Proyectos de diseño: planificación, gestión y más allá del proyecto
- Diseño centrado en el usuario y el papel cambiante del diseñador
- Cercano a los clientes: el diseño como un diálogo
- Gestión de proyecto centrado en el cliente
- Conocimiento común: compartir ideas, investigación, teorías y diseños en comunidades de práctica
- Evaluación del diseño: descubriendo lo que funciona
- Planeación del escenario: diseño para futuros alternativos
- Crear y romper códigos: regulación en la industria del diseño
- Aspectos legales del diseño: gestión de riesgos, documentación, cumplimiento, regulación y relaciones contractuales
- Comunidades profesionales: problemas de (auto) gobernanza y (des) regulación
- Ética profesional
- Documentando el proceso de diseño: metodologías, heurística y rutinas
- Tipologías de producto y servicio, esquemas, ontologías y tesauros
- Gestión de conocimiento del diseño

Tema 6: Diseño arquitectónico, espacial y ambiental

- Arquitectura
- Planificación urbana
- Arquitectura de paisaje
- Diseño de evento
- Diseño de interacción
- Diseño de iluminación
- Diseño de teatro y escenario
- Sostenibilidad: diseño en un entorno ambiental, económico, social y cultural
- Ecodiseño: diseño medioambiental y ecológico
- Estándares y normativas ambientales
- Certificaciones ambientales
- Uso de la energía y huellas ambientales
- Uso del agua y los recursos naturales
- Ciclos de vida: diseñar prodcutos y servicios para el largo plazo
- Reciclaje
- Sostenibilidad integrada: trabajar con científicos, científicos sociales y economistas
- Metrópolis: perspectivas transversales sobre ciudades del futuro
- Naturaleza diseñada: acceso a parques y áreas silvestres
- Diseños rurales

Diseño sin fronteras

Vivimos en un mundo complejo donde las antiguas certezas, creencias y esquemas de conocimiento están perdiendo valor y autoridad. Hoy en día muchos límites tradicionales entre personas, cosas, ideas y lugares parecen colapsar ante las nuevas fuerzas de la evolución culturas, tecnológica, política y social. Frecuentemente parece que perdemos nuestra consciencia sobre cuál podría ser nuestro futuro y nuestro papel y responsabilidad en su construcción. ¿Cuáles serán nuestras identidades, necesidades o esperanzas.

El diseño se encuentra en una posición intermedia entre las relaciones materiales e inmateriales. Los diseñadores pueden ejercer una tarea única para responder estas preguntas facilitando el debate, la reflexión y las acciones transformadoras. Asumen un papel social y político al definir nuestro mundo material. Hoy en día esto tiene una responsabilidad clave: combinar el nuevo conocimiento, el pensamiento crítico, la consciencia y la creatividad para transformar los temas a gran escala sobre la base de las necesidades reales de la comunidad, que es donde acontece la vida humana.

En términos generales, esto implica obrar de maneras que sobrepasen los límites establecidos entre culturas, disciplinas, reglas sociales y tópicos políticos. "No diseñar límites" es el nuevo desafío. ¿Cómo y dónde construimos límites implícitos, los deconstruimos cuando actúan como barreras o los construimos de modo resiliente cuando son necesarios? ¿Cómo puede el diseño actuar dando voz a las personas para escoger su propio modo de pensar y actuar, de modo que sean los agentes del cambio dentro y fuera de los límites?

Prácticas del diseño

La industria del diseño está en un estado de incertidumbre. Los roles, las tareas y la imagen de los diseñadores están cambiando.

El diseñador ya no es el experto técnico, el esteta heroico o el individuo inspirado de nuestro pasado reciente, el diseñador contemporáneo aprovecha las fuentes dispersas de creatividad e innovación. La clave hoy es la colaboración. Para los practicantes de diseño, una paradoja central de nuestros tiempos es por una parte , la creciente especialización, pero por la otra, la necesidad de una integración holística de un rango más amplio de tareas de diseño, funcionando entre y a través de las disciplinas de diseño. El diseño se está transformando en un proceso cada vez más social, en efecto sociable.

El imperativo de colaborar se extiende además, más allá del dominio de una interacción profesional y de trabajar en equipos de diseño. También se extiende a la relación entre los usuarios, clientes y consumidores del diseño. Hoy los diseñadores necesitan desarrollar profundas relaciones colaborativas con su "público". El diseño participativo y los diseños centrados en el usuario son solo dos fraes clave que capturan el espíritu de este imperativo.

En términos generales, el equilibrio de poder en el proceso de diseño está cambiando desde el diseñador que todo lo sabe y crea cosas que son buenas para consumidores pasivamente agradecidos, a un diálogo que involucra procesos más cuidadosos y sistemáticos de consulta con el usuario, investigación, diseño colaborativo, prueba, evaluación y rediseño continuo. La democracia emergente del diseño convierte al diseñador en un conversador, facilitador, mentor y pedagogo. Como consecuencia se pone en duda el legado de autocomprensión del diseñador como un artista, tecnócrata y experto. Las nuevas políticas del diseño juegan a través de tensiones entre roles históricos y expectativas contemporáneas En el trayecto, ¿qué se gana y qué se pierde? ¿Qué es inherentemente difícil acerca de las nuevas relaciones entre el diseñador y el usuario, y qué es intrínsecamente liberador?

Tan pronto como cambia el equilibrio de poder, un mundo polimorfo y polivalente social se presenta así mismo. "Cualquier color que le guste, siempre y cuando sea negro", dijo el heróicoheroico Henry Ford , quien cómodamente asumió que cada cliente en su mercado masivo tenía necesidades e intereses idénticos. Pero tan pronto como usted comienza a hablar de los nichos de mercado, el uso y la personalización, descubre la diversidad en un rango aún más sorprendente de matices y tintes—locales y globales, de diferentes capacidades e incapacidades de edades,y culturas y géneros y afinidades. La paradoja de la democracia del diseño de hoy, es que diseñar para todos significa diseñar para muchos intereses y usos diversos.

Entonces, hay algunas nuevas líneas de insistencia social que los diseñadores desarrollan para objetivos de sostenibilidad, acceso, seguridad y el bien social. Estos son asuntos de normas y cumplimiento cada vez más intrincadas. O, si usted interioriza estas instancias, se transforman en asuntos de ética profesional autorreguladas.

Estas son algunas de las cosas que sencillamente están cambiando el trabajo de ser un arquitecto, planificador urbano, diseñador industrial, ingeniero, diseñador visual, diseñador de web, gestor de conocimiento, diseñador de medios o comunicaciones, diseñador de modas, investigador de usos o diseñador educacional — para nombrar solo unas cuantas de las vocaciones de diseño.

Modalidades de diseño

Las modalidades de diseño también están en un estado de incertidumbre, sus herramientas de trabajo de representación, comunicación, visualización e imaginación.

La digitalización de texto, sonido y la imagen fija o en movimiento es una importante transición. Esto ha engendrado nuevas prácticas de modelado y simulación, de prefigurar lo real en lo virtual. También ha presentado lo virtual como un resultado del diseño en sí mismo. El resultado es una nueva multimodalidad y sinestesia. La conceptualización del diseño requiere que los diseñadores se muevan entre las modalidades del lenguaje, la imagen, el sonido, el espacio, el tacto y el gesto. El significado de su diseño puede ser articulado de una manera, luego de otra, o de todas maneras al mismo tiempo en un proceso profundamente integrado de sinestesia.

Los diseñadores necesitan ser capaces de "hacer" un discurso de diseño profesional multimodal. Deben hablar y escribir a su manera a través de colaboraciones complejas con codiseñadores e interacciones con los usuarios. Necesitan ser capaces de "crear" visualizaciones mientras que exploran las alternativas de diseño mediante imágenes mentales y retratar sus visiones dentro de la realidad Necesitan ser capaces de representar realidades espaciales, prefigurando las tres dimensiones mediante dos dimensiones y cambiando los planos en artefactos táctiles, objetos manipulables, espacios arquitectónicos y paisajes navegables. El nuevo medio digital proporciona herramientas nuevas, flexibles y accesibles para el pensamiento sinestético y multimodal. Hoy las invenciones de los medios se han transformado en las madres de la necesidad del diseño.

Tal innovación no es simplemente una innovación solo por sí misma. También es por las razones más prácticas. Hay una necesidad en aumento para la documentación a efectos de la planificación y la gestión de proyectos, la regulación y el cumplimiento, la evaluación del riesgo y la gestión del mismo y la especificación de proyectos y la claridad contractual.

Principios del diseño

Así que ¿qué es esto del diseño? ¿Qué es el diseño de algo? Y ¿qué significa "hacer" el diseño?

La palabra "diseño" tiene un doble significado fortuito que describe simultáneamente una estructura intrínseca y el acto voluntario de crear. El diseño es a la vez morfología y construcción. Morfología: el diseño es inherente, mientras que sus orígenes pueden ser orgánicos, inconscientes, de sentido común, o el producto cuidadosamente premeditado del trabajo profesional del diseñador. El diseño en este sentido es estructura, forma y función.

Construcción: el diseño es también un acto, una manifestación de voluntad, un proceso de transformación. La narrativa del diseño es más o menos así: toma los diseños disponibles en el mundo, inherente a los objetos encontrados, arquitecturas, paisajes, procesos, relaciones humanas, culturas. Luego se involucra en el acto de diseñar o reelaborar y reimaginar estos diseños. Esto no es nunca solo un negocio de reproducción y replicación. Siempre envuelve una inyección de los intereses sociales y experiencias culturales del diseñador; su subjetividad e identidad, no menos. El residuo, como la narrativa llega a un fin momentáneo, es el mundo transformado sin que importe lo poco que sea. Pero el mundo nunca vuelve a ser el mismo, y el rediseño se devuelve al mundo. La acción del diseño sigue las transformaciones que se unen al repertorio de diseños disponibles; nuevos inicios para nuevas narrativas de diseño.

Tal vista contrasta con comprensiones más antiguas del diseño, en las cuales los diseñadores eran receptores pasivos de rutinas expertas. Su formación dentro de la práctica profesional los ha conducido a aprender a reproducir formas de diseño recibidas, sancionadas y autoritarias. Esto pudo haber sido apropiado para un mundo que concedía importancia a la estabilidad y uniformidad.

Pero el mundo de hoy es un lugar de cambio y diversidad. Diseñar en un sentido dinámico, transformable, puede ser propicio, e incluso emancipador. Es un proceso de cambiar al mundo.

Con este espíritu, el Congreso de Diseño, las revistas de diseño, la editorial del diseño y el Blog de noticias de diseño se mueven entre una reflexión teórica sobre la naturaleza del diseño y los casos de estudio de la práctica del diseño, y desde las perspectivas basadas en la investigación a las basadas en la experiencia de los enterados en el diseño.

Revista Internacional de Principios y Prácticas del Diseño

Buscando crear un marco de referencia para el debate interdisciplinar sobre el papel del diseño en la sociedad

Principios y Prácticas del Diseño | **La Revista Internacional**

La *Revista Internacional de Principios y Prácticas del Diseño* se plantea preguntas sobre la naturaleza, significado y propósito del diseño. Esta revista interdisciplinar y transdisciplinar pone en común las perspectivas de investigadores, teóricos, profesionales y profesores provenientes de diferentes campos, tales como la arquitectura, el arte, la ciencia cognitiva, las telecomunicaciones, la informática, los estudios culturales, el diseño, la educación, los estudios de cine, la historia, la lingüística, la gestión, el marketing, la comercialización y distribución, los medios de comunicación, la museografía, la filosofía, la semiótica, la fotografía, la psicología, los estudios religiosos, etc.

La revista publica artículos redactados en riguroso formato académico, textos de orientación teórica como práctica, con una aproximación prescriptiva como descriptiva, incluyendo las narrativas de prácticas evaluativas y los efectos de dichas prácticas.

Son especialmente bienvenidos los artículos que presenten el estado del arte de esta especialidad, así como los textos que propongan prescripciones metodológicas.

La *Revista Internacional de Principios y Prácticas del Diseño* está sometida a un riguroso proceso de revisión por pares externo para garantizar la publicación de trabajos de la máxima calidad científica. Acepta textos en español y portugués. El sistema de arbitraje recurre a evaluadores externos a esta editorial. Solo se aceptan para publicación textos originales.

Revisores

Los artículos que se publican en la *Revista Internacional de Principios y Prácticas del Diseño* cuentan con la revisión por pares de académicos que son miembros activos de la Red de Investigación de la Imagen. Los revisores pueden ser participantes de conferencias actuales o pasadas, compañeros de presentación de artículos para la colección o académicos que se han ofrecido voluntariamente a revisar artículos y han cumplido los criterios de selección del equipo editorial de Common Ground. Este compromiso con la red de investigación, así como el sistema de evaluación de Common Ground, sinérgico y basado en estrictos criterios, distingue el proceso de revisión por pares de la *Revista Internacional de Principios y Prácticas del Diseño* del de otras revistas que aplican un método de evaluación más vertical, centrado en el director.

A los revisores de la *Revista Internacional de Principios y Prácticas del Diseño*, los artículos se les asignan según sus intereses, conocimiento y experiencia académicos. Como reconocimiento a sus valiosas opiniones y recomendaciones de publicación, se les otorga el crédito de Revisores en el volumen que incluye el o los artículos que revisaron.
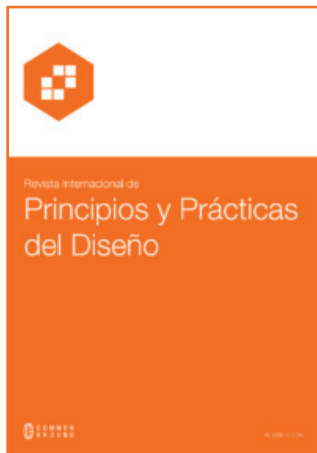
Congreso Internacional de Principios y Prácticas del Diseño

Conservando los espacios globales interdisciplinares, apoyando las relaciones profesionalmente satisfactorias

Principios y características del congreso

La estructura del congreso se basa en cuatro principios básicos que impregnan todos los aspectos de la Red de Investigación:

Internacional

El congreso recorre diferentes lugares del mundo para proporcionar oportunidades para que los delegados vean y experimenten diferentes países y ubicaciones. Pero, aún más importante, es el hecho de que ofrece una oportunidad tangible y significativa para involucrarse con académicos de una diversidad de culturas y perspectivas. Este año, delegados de más de 41 países asistirán, ofreciendo una oportunidad única y sin paralelo de involucrarse directamente con colegas de todos los rincones del mundo.

Interdisciplinario

A diferencia de congresos de asociaciones en que asisten delegados con experiencias y especialidades similares, estos congresos reúnen a investigadores, profesionales y académicos de una amplia gama de disciplinas, que comparten su interés en los temas y las preocupaciones de esta red. Como resultado, los temas se abordan desde una variedad de perspectivas, se elogian los métodos interdisciplinarios y se anima el respeto mutuo y la colaboración.

Incluyente

Se da la bienvenida a cualquiera cuyo trabajo académico sea sólido y competente tanto en las redes como en los congresos, sin importar su disciplina, cultura, institución o carrera. Ya sea un profesor emérito, un estudiante graduado, investigador, docente, político, profesional o administrador, su trabajo y su voz pueden contribuir a la base colectiva de conocimiento que se crea y se comparte en estas redes.

Interactivo

Para aprovechar completamente la rica diversidad de culturas, antecedentes y perspectivas representadas en estos congresos, debe haber amplias oportunidades de hablar, escuchar, participar e interactuar. Se ofrece una variedad de formatos de sesión más o menos estructuradas a través de ambos congresos para proporcionar estas oportunidades.

Ponencias plenarias

Los oradores plenarios, elegidos de entre los más destacados pensadores del mundo, ofrecen ponencias formales sobre temas de amplio interés para la Red de Investigación y los participantes del congreso. Uno o más oradores están programados en una ponencia plenaria, casi siempre la primera del día. Por regla general no hay preguntas ni conversación durante estas sesiones. Los oradores plenarios responden preguntas y participan en charlas informales y prolongadas durante sus conversaciones en el jardín.

Conversaciones en el jardín

Las conversaciones en el jardín son sesiones informales, no estructuradas que brindan a los delegados la oportunidad de reunirse con oradores plenarios y hablar largamente con ellos acerca de los asuntos que surgen de su ponencia. Cuando el lugar y el clima lo permiten tratamos de acomodar sillas en círculo en el exterior.

Mesas redondas

Celebradas el primer día del congreso, las Mesas redondas constituyen una de las primeras oportunidades para conocer a otros participantes con intereses y preocupaciones similares. Los participantes eligen los grupos que prefieren según grandes áreas temáticas y se enfrascan en largas conversaciones sobre los asuntos y preocupaciones que les parecen de mayor relevancia para ese segmento de la red de investigación. Quizá guíen la conversación preguntas como "¿Quiénes somos?", "¿Qué tenemos en común?", "¿Qué retos enfrenta hoy la sociedad en esta materia?", "¿Qué desafíos afrontamos para construir conocimiento y operar cambios significativos en este asunto?" Cuando es posible, se lleva a cabo una segunda mesa redonda el último día del congreso, para que el grupo original vuelva a reunirse y discuta sus cambios de puntos de vista y opiniones a raíz de la experiencia del congreso. Los informes de las mesas redondas dan a los participantes un marco para sus últimas conversaciones durante la sesión de clausura.

Ponencias de artículos por tema

Las ponencias de artículos se agrupan por temas generales en sesiones compuestas por tres o cuatro ponencias, seguidas de una discusión grupal. Cada ponente de la sesión realiza una ponencia formal de su trabajo, que dura 20 minutos; una vez presentados todos, sigue una sesión de preguntas y respuestas, y una de discusión grupal. Los moderadores de la sesión presentan a los ponentes, miden el tiempo de las ponencias y facilitan la discusión. Los participantes recibirán un ejemplar del artículo escrito de cada presentador si éste se acepta en la revista.

Coloquios

Los coloquios son organizados por un grupo de colegas que desean presentar varias dimensiones de un proyecto o perspectivas sobre un asunto. A cuatro o cinco ponencias formales breves siguen comentarios, discusiones grupales o ambos. Se puede presentar a la revista uno solo o múltiples artículos con base en el contenido de un coloquio.

Discusiones enfocadas

Para un trabajo que mejor discutir o debatir, más que reportarlo mediante una ponencia formal, estas sesiones proporcionan un foro para una conversación de "mesa redonda" extendida entre un autor y un pequeño grupo de colegas interesados. Varias de dichas discusiones ocurren simultáneamente en un área especificada, con cada mesa de autor designada por un número correspondiente al título y tema enumerando en el programa previsto. Se usan resúmenes de las ideas principales del autor o de puntos de discusión, para estimular y guiar el discurso. Se puede enviar a la revista un solo artículo con base en el trabajo académico e informado por la discusión centrada como corresponda.

Talleres

Los talleres implican una amplia interacción entre ponentes y participantes en torno a una idea o una experiencia práctica de una disciplina aplicada. Estas sesiones también pueden adoptar formato de panel, conversación, diálogo o debate preparados, todos con una considerable participación del público. En un taller puede someterse a aprobación para la revista un solo artículo (de varios autores, si se considera oportuno).

Sesiones de pósteres

Las sesiones de pósteres presentan los resultados preliminares en progreso o proyectos que se prestan a proyecciones y representaciones visuales. Estas sesiones permiten participar en discusiones informales con delegados interesados acerca del trabajo.

Lunes, 5 de marzo

8:00–9:00	Mesa de inscripción abierta
9:00–9:30	Inauguración del Congreso (en inglés)—Dr. Phillip Kalantzis-Cope, Jefe de Ciencias Sociales, Common Ground Research Networks, Champaign, Illinois, EEUU
9:30–10:00	Discurso de bienvenida (en inglés)—Arianna Mazzeo, Directora, Masterlab in Service Design Systems, Desislab Elisava Leader, Barcelona, España; Loredana Di Lucchio, Arquitecta, Investigadora, Profesora, Universidad de Roma La Sapienza, Roma, Italia
10:00–10:35	Sesión plenaria (en inglés)—Oscar Tomico, Jefe de Estudios, Grado Universitario en Ingeniería del Diseño Industrial, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España, Profesor adjunto, Diseño Industrial, Universidad Técnica de Eindhoven, Eindhoven, Países Bajos *"Towards a Research Program in the Interdisciplinary Field of Soft Wearables and Smart Textiles"*
10:35–11:05	Conversación en el jardín y pausa para el café
11:05–11:50	Mesas redondas
11:50–12:50	Almuerzo
12:50–14:30	Sesiones paralelas
14:30–14:45	Pausa para el café
14:45–16:25	Sesiones paralelas
16:25–17:25	Recepción de bienvenida

Martes, 6 de marzo

8:15–9:00	Mesa de inscripción abierta
9:00–9:25	Noticias del día
9:25–10:00	Sesión plenaria (en inglés)—Albert Fuster, Director académico, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España; Ezio Manzini, Fundador, DESIS Network, Profesor distinguido de Diseño para Innovación Social, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España, Profesor honorario, Universidad Politécnica de Milán, Milán, Italia, Profesor invitado, Universidad de Jiangnan, Wuxi, China *"The Making of Collaborative Cities"*
10:00–10:30	Conversación en el jardín y pausa para el café
10:30–12:10	Sesiones paralelas
12:10–13:10	Almuerzo
13:10–13:55	Sesiones paralelas
13:55–14:10	Pausa para el café
14:10–15:50	Sesiones paralelas
15:50–16:00	Pausa
16:00–16:45	Sesión plenaria (en inglés)—Marti Guixè, Diseñador Industrial y de Interiores, Barcelona, España y Berlín, Alemania *"Ex-designer"*
16:45–17:15	Conversación en el jardín

Miércoles, 7 de marzo

8:15–9:00	Mesa de inscripción abierta
9:00–9:20	Noticias del día
9:20–9:55	Sesión plenaria (en inglés)—Ariel Guersenzvaig, Profesor e investigador, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España *"Design Ethics: A Dual Challenge"*
9:55–10:25	Conversación en el jardín y pausa para el café
10:25–12:05	Sesiones paralelas
12:05–13:05	Almuerzo
13:05–14:45	Sesiones paralelas
14:45–15:00	Pausa para el café
15:00–16:40	Sesiones paralelas
16:40–17:10	Clausura del congreso

Tour precongreso: Arte y Diseño en Barcelona
4 marzo de 2018 | 15:30 (3:30 PM) | Duración: 2.5 - 3 horas
Punto de encuentro: Hotel Omm, Carrer del Rosselló, 265, 08008, Barcelona, España

Únase a los demás delegados del congreso y a los ponentes plenarios el día anterior del congreso para el tour a pie por el barrio de Eixample.

A lo largo del tour se analizará el innovador plan urbano de Idelfons Cerdà y las obras principales de Gaudí que encabezó el movimiento de arquitectura modernista del barrio. Observe desde el tejado del primer hotel "de diseño" la vista al Eixample y descubra cómo los arquitectos contemporáneos y diseñadores de interiores se han inspirado por el movimiento modernista y adaptaron los edificios declarados patrimonio de humanidad para ventas sorprendentes y proyectos de hostelería. Visite las salas de exposición de los principales diseñadores catalanes y descubra cómo las marcas tradicionales se han modernizado y expandido al mercado global a través del diseño gráfico y comunicación. Termine la experiencia tomándose un café con el guía que le podrá recomendar los sitios a visitar durante su estancia en Barcelona.

Recepción de bienvenida
5 de marzo de 2018 | Directamente al finalizar la última sesión del día
Cortesía para todos los delegados del congreso
Ubicación: ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona

Common Ground Research Networks y el Congreso de Principios y Prácticas del Diseño llevarán a cabo una recepción de bienvenida en la sede del congreso, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona. La recepción tendrá lugar justo después de la última sesión del primer día, 5 de marzo de 2018. Se invita a todos los delegados a asistir y disfrutar de bebidas refrescantes de cortesía, así como aprovechar esta excelente oportunidad de conocer a sus compañeros delegados internacionales y ponentes plenarios.

Cena del congreso: El Nacional

6 de marzo de 2018 | 19:30 (7:30PM) | Coste: US$75
Lugar: Passeig de Gràcia, 24 Bis 08007, Barcelona, España

Únase a otros delegados y ponentes plenarios del congreso en El Nacional.

El Nacional cuenta con 4 áreas gastronómicas y 4 bares, cada uno decorado con un estilo particular dentro de un espacio amplio. Sin embargo, el restaurante también dispone de un espacio que no se puede visitar durante la visita normal debido a que está reservado para grupos: El Magatzem.

La decoración de El Magatzem reproduce su significado en catalán ("el almacén") con paredes hechas de cajas de madera, botellas y otros elementos que se pueden encontrar en un almacén. Su visita empezará con la copa de bienvenida de Juvé Camps, Reserva de la Familia D.O. Cava en el corazón de El Nacional donde podrá disfrutar de una cena exclusiva.

Disfrute de la deliciosa selección de entrantes, entre otras, la ensalada de pescado y mariscos, la ensaladilla rusa, bacalao desmigado con tomate y ensalada de aceitunas, calamares a la marina, jamón de bellota y patatas fritas de Formentera. El plato principal será el besugo con toque de la sal fina de Ibiza. Para acompañar su cena, le ofrecemos: Afortunado (Verdejo) D.O. Rueda, Lan D-12 (Tempranillo) D.O. Rioja, Estrella Damm (cerveza mediterránea), refrescos, agua mineral, café o té. La cena concluirá con un trozo de tarta para el postre. Se ofrece la opción de tapas vegetarianas.

Clausura del congreso

7 de marzo de 2018 | 17:00–17:30 (5:00–5:30 PM)
Lugar: ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona

Únase a los ponentes plenarios, miembros del panel y otros delegados en la clausura del congreso donde se hará un reconocimiento de los ayudantes y se anunciará el congreso del próximo año. El acto tendrá lugar en ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona al finalizar la última sesión del día.

Lunes, 5 de marzo
08:00-09:00 **Mesa de inscripción abierta**
09:00-09:30 **Inauguración del Congreso (en inglés)—Dr. Phillip Kalantzis-Cope, Jefe de Ciencias Sociales, Common Ground Research Networks, Champaign, Illinois, EEUU**
09:30-10:00 **Discurso de bienvenida (en inglés)—Arianna Mazzeo, Directora, Masterlab in Service Design Systems, Desislab Elisava Leader, Barcelona, España; Loredana Di Lucchio, Arquitecta / Investigadora / Profesora, Universidad de Roma La Sapienza, Roma, Italia; Lorenzo Imbesi, Arquitecto / Profesor, Universidad de Roma La Sapienza, Roma, Italia**
10:00-10:35 **Sesión plenaria (en inglés)—Oscar Tomico, Jefe de Estudios, Grado Universitario en Ingeniería del Diseño Industrial, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España / Profesor adjunto, Diseño Industrial, Universidad Técnica de Eindhoven, Eindhoven, Países Bajos**
"Towards a Research Program in the Interdisciplinary Field of Soft Wearables and Smart Textiles"
10:35-11:05 **Conversación en el jardín y pausa para el café**
11:05-11:50
Room 9 **Mesas redondas** **Plenary Room - Design Education** **Room 1 - Design in Society** **Room 2 - Designed Objects** **Room 3 - Visual Design** **Room 4 - Design Management and Professional Practice** **Room 5 - Architectonic, Spatial, and Environmental Design** **Room 6 - 2018 Special Focus: No Boundaries Design** **Room 9 - Mesa Redonda en español**
11:50-12:50 **Almuerzo**
12:50-14:30 **SESIONES PARALELAS**

Room 9 **Sesión en español: Diseño en la sociedad**

Usabilidad y emociones: El caso de la interfaz visual en planes alimenticios
Lilia Roselia Prado Leon, Universidad de Guadalajara, México
Sara Cardenas Vazquez, Universidad de Guadalajara, México
Los consumidores no solo esperan que un producto sea un objeto útil, sino que además el producto cubra sus necesidades y deseos, lo que incluye un diseno atractivo que los motive a usar el producto, así como que les evoque un sentimiento placentero (Jakobs, Trevisan y Schmitt, 2014). Este documento presenta un estudio en el que se evaluaron emociones positivas (fascinación, deseo, placentero y satisfacción) generadas por tres tipos de interfaces visuales en planes alimenticios disenadas para pacientes diabéticos: 1) basada en texto, 2) con lineamientos de usabilidad en escala de grises y, 3) con lineamientos de usabilidad en color. Los resultados indicaron que las emociones positivas relacionadas significativamente fueron Satisfacción (p = 0.032) y Placentero (p = 0 .013).
Diseño visual

Resiliencia: Criterio del Ser y el hacer como principio de diseño en la gestión del riesgo sobre zonas afectadas por inundaciones en el Municipio de Villavicencio, Colombia
David Aperador Rodríguez, Universidad Antonio Nariño, Colombia
Luis Raul Echeverri Barreto, Universidad Antonio Nariño, Colombia
Adriana Maria Rangel Arenas, Universidad Antonio Nariño, Colombia
Juan Hernando Mojica Rodríguez, Universidad Antonio Nariño, Colombia
El desarrollo físico del hábitat en el Municipio de Villvicencio se ha fundado en el diseno del hecho arquitectónico basado en: lineamientos y criterios teóricos de diseno, normas y otros documentos legales generados para regular el desarrollo urbano y de la edificación de acuerdo a su ubicación. Sin embargo, parte de las inversiones en estos desarrollos obvian un aspecto importante como lo es, la seguridad y la sustentabilidad de éstas en el tiempo con respecto a las afectaciones que pueden generar: fenómenos naturales, antrópicos y sociales, los cuales podrían colocarlas en zonas de alta vulnerabilidad ante la amenaza permanente o fortuita de estos fenómenos. En tal sentido, se ha realizado una investigación documental y de campo, para analizar zonas de estudio vulnerables, con la finalidad de establecer condiciones de riesgo y determinantes de diseno que permitan el desarrollo de edificaciones resilientes en zonas de riesgo afectadas por inundaciones, ante la responsabilidad del Ser en el hacer.
Diseño en la sociedad

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Lunes, 5 de marzo

12:50-14:30	**SESIONES PARALELAS**

Proyecto aplicativo: Campaña de Prevención de acoso sexual y violencia basada en género en la ESPOCH

Mayra Pomaquero Yuquilema, Escuela Superior Politécnica de Chimborazo, Ecuador
Byron Javier Chicaiza Tixe, Escuela Superior Politécnica de Chimborazo, Ecuador
Paulo Andrés Pizanán, Escuela Superior Politécnica de Chimborazo, Ecuador
Wilmer Fernando Orozco Colcha, Escuela Superior Politécnica de Chimborazo, Ecuador

Este trabajo presenta la construcción gráfica de la Campaña de Prevención de acoso sexual y violencia basada en género en la Escuela Superior Politécnica de Chimborazo. La Organización mundial de la Salud define a la violencia como el uso deliberado de la fuerza física o el poder, ya sea en grado de amenaza o efectivo, contra uno mismo, otras personas o un grupo o una comunidad. La violencia basada en género y el acoso sexual en el ámbito de la educación superior atentan y obstaculizan los logros de las instituciones en calidad y excelencia. El trabajo aborda los aspectos relevantes del desarrollo de la campana, desde la idea a la materialización, los soportes, los medios y el desarrollo de las fases. Con el fin de obtener información y opiniones se realizaron entrevistas, encuestas, conversatorios y talleres con estudiantes, psicólogos, profesionales de la salud, líderes de organizaciones involucradas, y autoridades institucionales. Como resultado, se ha obtenido que las piezas gráficas presentadas para la campana han sido disenadas siguiendo parámetros conceptuales. Se concluye que este tema debe ser presentado por fases y niveles debido a su magnitud y que obtener opiniones de todos los involucrados desafía y enriquece el proceso de diseno.
Gestión y práctica profesional del diseño

Interacción persona a persona en la sociedad del S.XXI: La tecnología y el arte al servicio de la comunicación

Laura De Miguel Álvarez, Escuela Superior de Ingeniería y Tecnología, España
Mª Begona Yánez Martínez, Escuela Superior de Ingeniería y Tecnología, España

El proceso creativo artístico y el de diseno comparten la raíz y gran parte del desarrollo, en la búsqueda de soluciones que aglutinen mensaje y forma. El lugar propio del diseno es privilegiado gracias a que bebe de la creatividad de las artes, conformando ese aporte significativo de comunicación visual eficaz, lo que lo ubica como satisfactor de las necesidades reales de una sociedad que vive una doble realidad en la interacción física y digital. Por eso, en su conjunto, dicha sociedad requiere que se tengan en cuenta en el diseno de interacción aspectos que van más allá del manejo de las herramientas tecnológicas para la interacción persona-ordenador y que tienen que ver con la vuelta al mundo analógico para favorecer la interacción persona a persona, aunque ésta suceda a través de medios digitales y/o virtuales. Recientemente, con la incorporación de perfiles profesionales y académicos provenientes de las Bellas Artes al grupo de Mobility and User Experience de UNIR, se ha abierto un nuevo marco sobre el que investigar en el diseno y desarrollo de soluciones que hermanen los procedimientos artísticos con la interactividad tecnológica para favorecer en el usuario la comunicación significativa.
Diseño en la sociedad

Room 1	**Sesión en inglés: Future of Design Education**
Room 2	**Sesión en inglés: Collaboration and Design Education**
Room 3	**Sesión en inglés: No Boundaries Design: Rethinking Limitation**
Room 4	**Sesión en inglés: Product Design: Solution and Inspiration**
Room 5	**Sesión en inglés: Human-centered Design Approaches**
Room 6	**Sesión en inglés: New Processes for Designing Spaces**
Room 7	**Sesión en inglés: Sustaining Heritage and Development**
Room 8	**Sesión en inglés: Gender and Design Education**

14:30-14:45	**Pausa para el café**
14:45-16:25	**SESIONES PARALELAS**

Room 9	**Sesión en español: Diseño visual y formación en diseño**

La formación del diseño gráfico España: Estructura o desestructura

Sheila Gonzalez Mardones,Universidad de Barcelona, España

La formación es el pilar básico que marca la posterior calidad de los profesionales de cualquier sector. Una formación clara, estructurada y estratificada debería ser la realidad lógica para cualquier estructura formativa. Nada más lejos de la situación actual en el campo de la formación en diseno gráfico en Espana. La estructura formativa del diseno en Espana a pesar de ser ámplia y completa en todos sus niveles es compleja, está solapada y presenta duplicidades que generan confusión, competencia desleal e intrusismo profesional. Evidencia una falta de consenso en la definición de perfiles, roles y responsabilidades que no permiten una consolidación disciplinar desde su base profesional y que requiere de una revisión, reformulación y reimplantación si pretendemos que nuestra disciplina tenga presente y ayude en la construcción de un futuro mejor.
Formación en diseño

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Lunes, 5 de marzo	
14:45-16:25	**SESIONES PARALELAS**

Las Competencias Creativas: Entre la práctica y educación en diseño
Beatriz Martínez Villagrasa, Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona, España
Danae Esparza, Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona, España
Sergi Cortinas, Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona, España
La rapidez de los avances tecnológicos, la comunicación y el mercado actual cuestionan constantemente el papel del diseñador en la sociedad. Este contexto plantea nuevas preguntas sobre el perfil curricular de los estudiantes de diseño en el siglo XXI. Hoy en día, la educación está cambiando su foco de la adquisición de información al aprender cómo utilizarla de manera competente; lo que implica la evolución del "ser" y "conocer" al "saber hacer". El modelo de capacitación y evaluación por competencias -ya consolidado en el campo educativo- está aumentando su presencia en la profesión del diseño, considerándose un factor diferencial entre los profesionales. En esta situación, la creatividad toma fuerza como un factor clave en la empleabilidad y la gestión del futuro incierto para los diseñadores. El presente artículo se centra en desarrollar el marco teórico de las competencias creativas, paso previo al desarrollo del Diccionario de Competencias Creativas. Será necesario mantener este diccionario actualizado a través de los datos recopilados con una plataforma online de análisis de competencias. El artículo concluye con las contribuciones que esta herramienta puede hacer para difuminar la frontera curricular entre la educación del diseño y la profesión.
Formación en diseño

Práctica laboral de diseño arquitectónico como herramienta de formación profesional
Juan Hernando Mojica Rodríguez, Universidad Antonio Nariño, Colombia
Adriana Maria Rangel Arenas, Universidad Antonio Nariño, Colombia
Hombre y saber es una manifestación fusionada que ha sido paradigma para varios investigadores a través del tiempo. Los senderos de la comprensión, el aprendizaje significativo y la resolución de propuestas de diseño enmarcadas en escenarios reales han permitido generar profesionales socialmente responsables a partir de la formación en prácticas laborales. Esta investigación tiene como propósito fortalecer los procesos formativos en los estudiantes de arquitectura de la Universidad Antonio Nariño a través de la implementación de prácticas laborales como estrategia de aprendizaje vinculados a contextos reales de acción. La creación de estrategias cognitivas en el campo del diseño en este contexto permitirá fortalecer el quehacer de la Universidad de Servicio, mediante la investigación desarrollada bajo el enfoque cualitativo de la sistematización de experiencias. A partir de los resultados generados podemos indicar que las Instituciones Universitarias deben ser garantes no sólo de la formación de profesionales, sino a la vez de ofrecer las herramientas necesarias para garantizar calidad, competitividad y productividad en procesos de aprendizajes contextualizados.
Formación en diseño

Escanografía líquida: Obtención de imágenes digitales de materiales sólidos y líquidos usando un escáner plano
Jaime Ruas, Escuela Superior de Ingeniería y Tecnología, España
Los escáneres planos normalmente se utilizan para escanear documentos, fotos o diapositivas, sin embargo, el escáner plano ofrece infinidad de aplicaciones mucho más excitantes para los artistas plásticos y para los diseñadores digitales. Mi estudio versa sobre una patente consistente en una caja de metacrilato con fondo transparente, la cual se coloca encima del escáner plano y permite dibujar y pintar con multitud de técnicas líquidas. Las técnicas plásticas y digitales se hermanan formando parte de un proceso de compenetración e hibridación de técnicas. Dichas técnicas susceptibles de ser empleadas en esta "caja escanográfica" pueden ser; acuarelas, acrílicos, collages, gouaches, tintas, papeles impresos, todas ellas mezcladas entre sí y con agua, hacen que las posibilidades que se abren a través de esta invención dentro del mundo del arte y del diseño sean ilimitadas. Esta técnica propone una nueva forma de pintar, las imágenes resultantes ampliadas permiten ver los detalles de la pintura fundiéndose. Las imágenes digitales resultantes son susceptibles de ser usadas en diferentes ámbitos como son las Bellas Artes, el Diseño Gráfico, Web o en la creación de texturas para diseños en 3D.
Diseño visual

Room 1	**Sesión en inglés: Architecture Education and Design**
Room 2	**Sesión en inglés: Product Development and Process**
Room 3	**Sesión en inglés: Design Practice and Collaboration**
Room 4	**Sesión en inglés: Politics of Visual Culture**
Room 5	**Sesión en inglés: Consumerism: Designing for the Market**
Room 6	**Sesión en inglés: Landscape Architecture: Design for Society**
Room 7	**Talleres en inglés**
16:25-17:25	**Recepción de bienvenida**

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Martes, 6 de marzo	
08:00-08:15	
08:15-09:00	**Mesa de inscripción abierta**
09:00-09:25	**Noticias del día**
09:25-10:00	**Sesión plenaria (en inglés)—Albert Fuster, Director académico, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España; Ezio Manzini, Fundador, DESIS Network / Profesor distinguido de Diseño para Innovación Social, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España / Profesor honorario, Universidad Politécnica de Milán, Milán, Italia / Profesor invitado, Universidad de Jiangnan, Wuxi, China**
	"The Making of Collaborative Cities"
10:00-10:30	**Conversación en el jardín y pausa para el café**
10:30-12:10	**SESIONES PARALELAS**
Room 9	**Sesión en español: Diseño arquitectónico, espacial y ambiental**

Impacto ambiental al medio natural y principios de diseño: zonas en contingencia por fuentes hídricas
Yeferson Cespedes Millan, Universidad Antonio Nariño, Colombia
 Laura Dayana Rodriguez Gomez, Universidad Antonio Nariño, Colombia
Jessica Del Pilar Romero Ramirez, Universidad Antonio Nariño, Colombia
Maria Jose Suarez Londono, Universidad Antonio Nariño, Colombia
La ciudad de Villavicencio y su área de influencia cuentan con importantes áreas de alto valor ecológico y paisajístico, como lo son el entorno de los ríos, el piedemonte de la cordillera oriental, y un importante sistema de humedales y canos. Es una ciudad que presenta un límite urbano difícil de definir con una periferia desordenada, discontinua y de baja calidad urbano-territorial. Su crecimiento ha producido construcciones aledanas a las rondas de los ríos y canos, lo cual ha traído como consecuencias el aumento de la contaminación producida por los habitantes, causando distintos problemas sociales y ambientales como salubridad, inseguridad, malos olores y contaminación del agua. Esta investigacion tiene como propósito fortalecer los procesos de formación de los estudiantes de arquitectura de la Universidad Antonio Narino a través de la implementación prácticas laborales que permitan generar estrategias de aprendizaje vinculadas a contextos reales de acción, mediante la investigación desarrollada bajo el enfoque cualitativo de la sistematización de experiencias. A partir de los resultados generados podemos indicar que, determinar la caracterización de zonas de riesgo por inundaciones, se ha permitido desarrollar principios de diseno ajustados a contextos reales a fin de mitigar a través su aplicación el impacto a la población.
Diseño arquitectónico, espacial y ambiental

Inundaciones como determinante en la práctica del diseño de estrategias urbanas y gestión de zonas vulnerables en el Municipio de Villavicencio – Colombia
David Aperador Rodríguez, Universidad Antonio Nariño, Colombia
Luis Raul Echeverri Barreto, Universidad Antonio Nariño, Colombia
Adriana Maria Rangel Arenas, Universidad Antonio Nariño, Colombia
Juan Hernando Mojica Rodríguez, Universidad Antonio Nariño, Colombia
A través de la historia el desarrollo físico del hábitat humano se ha emplazado de forma espontánea en territorios fértiles y estratégicos, en algunos casos estos asentamientos se han generado en territorios que presentan fallas geomorfológicas, las cuales son atendidas por el hombre en la medida que se presentan hechos que afectan a la sociedad. Partiendo de este escenario, el estudio de estos temas permitirá definir prácticas profesionales como acciones estratégicas conjuntas que reduzcan el impacto de las inundaciones sobre el hombre y sus entornos. Por ello, se ha realizado la investigación documental y de campo, con la finalidad de establecer; estrategias de gestión pública a través del diseno de prácticas conjuntas efectivas para la mitigación oportuna de escenarios en zonas de vulnerabilidad por inundaciones relacionadas con los cuerpos hídricos del municipio de Villavicencio. Desarrollar prácticas y estrategias conjuntas ha permitido crear alianzas con entes públicos y privados a objeto de buscar el bien común, mediante la incorporación de la práctica profesional desde la Universidad Antonio Narino.
Diseño arquitectónico, espacial y ambiental

Principios y practicas de diseño enfocadas hacia la recuperación de los humedales como esponjas urbanas
 Maria Angelica Bernal Villamil, Universidad Antonio Nariño, Colombia
 Karen Andrea Cabra Acosta, Universidad Antonio Nariño, Colombia
 Carolina Machado Santos, Universidad Antonio Nariño, Colombia
 Dayanne Alejandra Fajardo Hernandez, Universidad Antonio Nariño, Colombia
La comunidad educativa de la Universidad Antonio Narino expone en el campo ambiental, arquitectónico y ecoturístico el manejo e intervención de los humedales como esponjas urbanas en la ciudad de Villavicencio, capital del Departamento del Meta. El circulo problemático en cuanto a intervención humana desmedida desde el campo agroindustrial, el asentamiento humano por el desplazamiento forzoso, la desaparición de cuerpos hídricos por construcciones y delincuencia hacen de la ribera el eje central de investigación postulando el nivel de intervención y acciones propicias en reactivación del humedal como núcleo del ecoturismo. El propósito de la investigación es la búsqueda documental a fin de formular los principios prácticos- teóricos de diseno propicios para intervención y recuperación especifica de humedales presentes en la ciudad (riberenos, palustres y lacustres), hecho que se ha logrado por medio de la investigación comparativa-analítica con proyectos análogos a nivel internacional. Caracterización, procesos e implementación de propuestas viables en el que el hombre se apropia del entorno natural, dará respuesta a problemáticas sociales y ambientales mediante el diseno arquitectónico como principios motores para el plan de manejo.
Diseño arquitectónico, espacial y ambiental |

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Martes, 6 de marzo

10:30-12:10	**SESIONES PARALELAS**
	Reflexiones sobre currículo y el taller de arquitectura en Inglaterra: Una reflexion radical de las pedagogias Carlos Marquez, Universidad de Nottingham Trent, Reino Unido El ejercicio de reflexionar sobre educación en arquitectura en el Reino Unido hoy resulta similar a mirar a través de una cortina de humo. Sujeto entre apremiantes agendas y la persistencia de mitos propios de su longeva tradición, la práctica del currículo tiende a una peligrosa uniformidad. Dos recientes publicaciones motivan esta reflexión: "21 Cosas que no aprenderás en la Escuela de Arquitectura" (A. Dobson, 2014), descrito como "una concisa y activa guía, busca desafiar tus supuestos sobre que significa tener éxito en arquitectura, y como lograrlo", y "Pedagogías Radicales. La Educación en Arquitectura y la Tradición Británica" (D. Froud y H. Harriss, 2015), "una muestra de una tendencia a la exploración de nuevas alternativas al modelo profesional dominante en el currículo de arquitectura". Común en ambas es el estar hechas a partir de "voces" de quienes "practican". Este escrito reflexiona en los desafíos planteados a partir de definiciones contemporáneas del currículo en el Reino Unido; en segundo lugar, examina la importancia de la Reflexión de su Práctica como método. Finalmente, como una forma de proveer de luz para esta mirada, comenta la importancia sobre la provisión de ámbitos y condiciones que pueden promover creativas respuestas al desafío de educar, más coherentes a la heterogénea condición que demuestra la teoría y práctica de la arquitectura del siglo XXI. *Diseño en la sociedad, Diseño arquitectónico, espacial y ambiental* **Papel de la tecnología en los estudios de percepción visual en diseño gráfico** Eréndida Cristina Mancilla González, Universidad Autónoma de San Luis Potosí, México Manuel Guerrero Salinas, Universidad Autónoma de San Luis Potosí, México María Del Mar Cuevas Riano, Universidad Complutense de Madrid, España La presente investigación tiene como objetivo el estudio de la percepción de la forma a partir del comportamiento del ojo frente a un estímulo organizado. El objetivo principal de este trabajo es monitorear el proceso de visualización de la forma (número de fijaciones, rutas de exploración, duración de la mirada fija en un área de interés y la densidad espacial de las fijaciones), analizar los principios de la Teoría Gestalt, para comprender cómo se produce el proceso perceptivo centrado en la visión del usuario, para el establecimiento de parámetros perceptuales que se pueden utilizar en los procesos de diseno aplicables a diferentes medios gráficos. Parte de un desarrollo experimental con sujetos de estudio mediante una prueba de rotación y seguimiento ocular con un dispositivo llamado Eye-Tracking, basado en las propuestas de Poole y Ball. Este trabajo se centra en la recopilación y el análisis de datos cualitativos y cuantitativos del seguimiento ocular. *Diseño visual*
Room 1	**Sesión en inglés: Teaching Methods and Practices**
Room 2	**Sesión en inglés: Design History and Development**
Room 3	**Sesión en inglés: Social Design, Social Responsibility, Social Change**
Room 4	**Sesión en inglés: The Future of Professional Practice**
Room 5	**Sesión en inglés: Sustainability and Environmental Design**
Room 6	**Sesión en inglés: Typography and Visual Design**
Room 7	**Sesión en inglés: Design to Impact Markets**
Room 8	**Sesión en inglés: Rethinking Design Education**
12:10-13:10	**Almuerzo**
13:10-13:55	**SESIONES PARALELAS**
Plenary room	**Pósteres virtuales en español**

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Martes, 6 de marzo

13:10-13:55	SESIONES PARALELAS

Metodología para diseño de calzado adaptable: Desarrollo de zapatos para población infantil económicamente vulnerable en Colombia

Rosales Calderon Karen, Universidad Pontificia Bolivariana, Colombia
Hernández Peláez Pamela, Universidad Pontificia Bolivariana, Colombia
Zuleta Montoya Fausto, Universidad Pontificia Bolivariana, Colombia

En Colombia, de acuerdo con el informe de Unicef, tres de cada diez ninos están en situación de pobreza, lo que corresponde al 34% de la población infantil. Estos ninos, que están dentro de un contexto económicamente difícil y que están por todo el país, sufren con la violación de sus derechos a soluciones básicas y la inaccesibilidad a artículos indispensables para sus distintas etapas de crecimiento, entre ellos, la alimentación, educación y vestuario adecuados. El calzado, por ejemplo, en su ausencia o limitaciones al cambio, puede generar afectaciones como lesiones en los pies de los ninos, ya que se encuentran en etapas de crecimiento y estos están susceptibles a malformaciones o danos permanentes. El desarrollar una propuesta metodológica de calzado para esta población, mediante trabajo etnográfico y distintos estadios de investigación que lleven a la creación de un zapato que se adapte a las necesidades físicas del desarrollo de los pies de los ninos y su contexto, es la meta final.
Diseño en la sociedad

Modelos visuales de Sistema Diseño: Herramientas de diagnóstico para el desarrollo de políticas públicas de diseño

Bernardo Antonio Candela Sanjuán, Universidad de La Laguna, España

El concepto Sistema de Diseño puede considerarse un modelo que reúne en un solo mapa las dimensiones, actores e interrelaciones que tienen lugar en un territorio delimitado en torno al sector del Diseno. Las interpretaciones visuales ayudan a representar gráficamente conceptos complejos, como es el caso de la dimensión territorial del diseño bajo un enfoque sistémico. La utilización de un modelo visual de Sistema Diseno facilita la comunicación conceptual del modelo teórico. Diferentes autores hacen uso de imágenes y representaciones gráficas, para explicar, dar a conocer, o aumentar la comprensión de sus propuestas de Sistema Diseno. Además, sirve de herramienta de diagnóstico al poder identificar los actores y sus interrelaciones, permite detectar debilidades en el sistema y ayuda a desarrollar políticas públicas en diseno. Las propuestas visuales de modelos Sistema Diseno se basan, principalmente, en diagramas de Euler y Venn, diagramas marco, mapas conceptuales; otras, son representaciones figurativas y dinámicas. La metodología utilizada ha sido la revisión bibliográfica sobre modelos teóricos de sistema diseno y el estudio documental de casos de diferentes realidades territoriales. En este trabajo se comparan las diversas propuestas existentes de modelos visuales de Sistema Diseno atendiendo a su morfología, finalidad y estrategia de visualización.
Diseño visual

Eje de interconexión y revitalización entre el Parque Santander y el Parque Centenario en el Centro de Bucaramanga

Natalia Andrea Cadena, Universidad Santo Tomás, Colombia
Diana Carolina Sevilla Torres, Universidad Santo Tomás, Colombia

La intervención urbana propuesta en el centro de Bucaramanga busca la interconexión y revitalización del eje que comunica el Parque Santander con el Parque Centenario. Las transformaciones experimentadas por la expansión no planificada y las actividades albergadas en el sector lo convirtieron en un foco administrativo y comercial que generó el deterioro del espacio público. El presente estudio surge a partir de una metodología que inicia con una Conceptualización en la cual se esclarece la pertinencia y el planteamiento del proyecto; seguido de una Caracterización del marco histórico que se enfoca en la problemática del sector Centro y las dinámicas que han modificado el objeto de estudio. Se analiza el marco normativo y legislativo que regula la elaboración del diseno, así como la identificación de la zona de influencia e intervención. Esta información se traduce en un Análisis y Diagnostico que determina los insumos para la Formulación de la propuesta, la cual enlaza una visión retrospectiva del lugar con una mirada integradora que responde al diseno del espacio público actual desde la perspectiva de quien lo habita: el ciudadano.
Diseño en la sociedad

Diseño y aplicación de un formato de percepción para la caracterización de los futuros diseñadores en Colombia

Andrea Lucía Medina Gómez, Pontificia Universidad Javeriana de Cali, Colombia

La industria del diseño es una contribución significativa y constante al crecimiento y la innovaciónflde los países (IPO, 2011), sus procesos de desarrollo son ineludibles en la obtención de buenos resultados para la empresa. Por esto, el objetivo es conocer la opinión de los futuros disenadores sobre sus lugares de trabajo, quienes han realizado la práctica profesional entre 2016 y 2017 de la carrera de Diseno de Comunicación Visual en la Pontificia Universidad Javeriana de Cali. La revisión y análisis de literatura especializada y experiencias con pymes de la capital vallecaucana, centradas en fundamentos del diseno, management, innovación y talento humano, revelan variables interesantes como las condiciones del contexto profesional, la trayectoria y el bienestar del entorno laboral, como determinantes en el diseno de un formato de percepción para la medición de la trayectoria, la experiencia y la participación laboral al interior de la empresa. La aplicación implicó un grupo de 40 practicantes, los resultados permitieron el diseno del formato con preguntas cerradas y abiertas. Los resultados se enfocaron en un primer listado de conceptos identificados como los más frecuentes y propios del disenador en el entorno laboral; Así mismo un grupo de aspectos característicos que definen su quehacer y entorno laboral. Los hallazgos generarán nuevas propuestas hacia la inclusión de un grupo que abarca además, egresados y otros profesionales del diseno en el país (vestuario, producto, industrial, gráfico, entre otros). Los resultados previos se usarán como insumo para la elaboración de un formato para empresarios.
Gestión y práctica profesional del diseño

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Martes, 6 de marzo

13:10-13:55	**SESIONES PARALELAS**
	Nuevos paradigmas educativos: El videojuego TerraExplora como herramienta divulgativa del patrimonio geográfico y cultural colombiano Seber Ugarte Calleja, IUCMC, Colombia El proyecto que abarcamos tiene un alcance teórico-práctico sobre las potencialidades en torno a las herramientas digitales (videojuegos), y como éstas pueden desplegarse en el ámbito educativo, y más concretamente, en entornos marginales o rurales. El espacio actual en el que se desempeñan estos alumno/as tiene una pertinencia importante y está siendo atravesado por las NTIC. Por este motivo, la educación no puede, ni debe, dar la espalda a esa tecnología, siendo consciente de la importancia de la incorporación progresiva de estas estructuras de conocimiento y desarrollo cognitivo. Por esta razón, la reestructuración que desde fuera se nos presenta a los docentes e investigadores requiere de metodologías y técnicas que permitan solucionar las problemáticas de alfabetización digital que requiere nuestra contemporaneidad. La metodología desarrollada en el proyecto se formaliza a partir de un enfoque prospectivo-cualitativo, que ha exigido una ruta de trabajo enfocada a través de dos áreas: la ingeniería de sistemas y el diseño visual; dentro de un marco colaborativo junto con la Universidad del Cauca, haciendo que TerraExplora sea sobre todo una herramienta educativa planteada, desde su base, como un videojuego educativo de carácter colaborativo. *Diseño visual*
Room 1	**Ponencias virtuales breves en inglés**
Room 2	**Discusiones enfocadas en inglés**
Room 3	**Sesión en inglés: Innovation Showcase**
Room 4	**Taller en inglés**
Room 5	**Taller en inglés**
Room 9	**Taller en español** **Elaboración de animaciones para la enseñanza-aprendizaje de las ciencias: Estrategia SmAL: "Stop-motion animation for Learning"** Bonny M. Ortiz-Andrade, Universidad de Puerto Rico, Puerto Rico SmAL, es una estrategia de enseñanza aprendizaje empleada en la construcción de conceptos científicos. Sus siglas en inglés obedecen a "Stop-motion animation for Learning". Esta estrategia emplea el diseño de animaciones de tipo Stop-motion, para garantizar un mejor entendimiento de los conceptos. En ella se integran conceptos de diseño cinematográfico y diseño de currículo. Los participantes del taller podrán comprender las cualidades didácticas de SmAL, mientras vivencian paso a paso el proceso de creación de un prototipo, con el cual representan un concepto científico. Para la construcción de animaciones sugeridas por SmAL, se proponen tecnologías accesibles como el teléfono inteligente, aplicaciones y materiales comunes en un aula de clase. *Formación en diseño, Diseño visual*
13:55-14:10	**Pausa para el café**
14:10-15:50	**SESIONES PARALELAS**
Room 9	**Sesión en español: Procesos de diseño** **Propuesta metodológica para definir la apariencia esperable de un objeto** Donald Granados, Instituto Tecnológico de Costa Rica, Costa Rica La definición de las características físicas y perceptuales que debe tener un objeto para definir su apariencia es una de las áreas que requiere mayor complejidad para el diseñador. Existen técnicas que permiten una aproximación a dichas características que han surgido de necesidades específicas y muestran utilidad para la solución de las mismas. Sin embargo, es difícil encontrar un abordaje integral en el cual se plantee un método que permita definir la apariencia esperable de un objeto. El presente estudio plantea un método que permite su estudio sistemático con el fin de definir los mensajes con que debe ser asociado, las características físicas que debe tener el objeto, el orden de dichas características y la jerarquía que deben ocupar en la composición para asegurar la emisión de los mensajes determinados. Para ello se aborda un estudio de las imágenes posicionadas en el imaginario colectivo, una definición del mensaje o los mensajes presentes, una categorización por significados, la definición de categorías sintácticas y las características que conforman la estructura sintáctica. Como resultado, se obtiene una sistematización de técnicas que permite relacionar la estructura sintáctica con el significado codificado, definiendo de esta manera la apariencia esperable de un objeto. *Formación en diseño*

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Martes, 6 de marzo	
14:10-15:50	**SESIONES PARALELAS**

Diseño gráfico: Un quehacer más allá de la experiencia visual-óptica
Nicolás Peña Casallas, Universidad Nacional de Colombia, Colombia
El presente trabajo es una aproximación a una propuesta epistemológica que revela al diseño gráfico como una experiencia más allá de la visual-óptica. Resultará problemático, en cualquier caso, interrogar la naturaleza visual del diseño gráfico, sobre todo cuando ya en su "apellido" —de gráfico— se anuncia un factor de esencialidad tradicionalmente fundado en lo óptico; basta considerar ya en nuestra experiencia cotidiana que las diferentes oportunidades en las cuales hemos estado de cara a esta disciplina han sido por medio de objetivaciones primordialmente visuales, es decir, por medio de artefactos diseñados para ser vistos como logotipos, carteles, infografías, libros, etc. Sin embargo, considerando que ésta naturaleza visual aboga precisamente por favorecer las cualidades visuales sobre aquellas no-visuales del campo, no resulta del todo insensata esta empresa, acotando, además, que en ella no se pretende retirar el carácter visual de la disciplina, tanto como realizar una aproximación a una propuesta epistemológica que, al discutir los conceptos de imagen, cuerpo y visualidad, desde los planteamientos teóricos de la cultura visual, la hermenéutica y la fenomenología, y desde el escenario específico de un programa curricular universitario, revelen al diseño gráfico como una experiencia más allá de la visual-óptica.
Diseño visual

Estudios precedentes a la asociación de procesos de diseño con el desarrollo de productos innovadores en el contexto empresarial
Vanessa Cantu, Universidad Autónoma de Nuevo León, México
Existe una gran variedad de procesos de diseño los cuales ofrecen una gama variada de alternativas de manejo y procesamiento de la información para el diseño y desarrollo de productos, lo que ha generado nuevas opciones para el diseñador como creador de estos en el contexto empresarial. Así pues el siguiente trabajo presenta un panorama formado sólo por algunas investigaciones acerca de cómo otros investigadores en los últimos años han abordado temas sobre los procesos de diseño, el desarrollo de productos y del diseño como estrategia empresarial, con el objetivo de exponer las diferencias en los procesos de diseño entre países y en diferentes épocas, así como de comentar el paralelismo que se da en el desarrollo de productos desde la perspectiva del diseñador y desde la perspectiva de una empresa, y, por último, para detallar la semejanza entre los procesos de diseño que se siguen dentro del contexto empresarial con los que se debieran enseñar a los estudiantes de diseño. A fin de presentarlo como un antecedente del análisis acerca de cómo impacta la elección y uso de los procesos de diseño para el desarrollo de productos innovadores.
Gestión y práctica profesional del diseño

La materia de proyectos en los Estudios Superiores en Diseño de Producto en el curso 2016-17
Guillem Ferran, Universitat Ramon Llull, España
El trabajo consiste en conocer el estado de las enseñanzas en diseño en la educación superior, especialmente en diseño de producto y objeto en diferentes instituciones educativas que se realizaron en España en 2017. Concretamente analizar la forma en que se desarrolla la materia de proyectos de diseño en un conjunto de centros, el estudio consiste en realizar un estudio comparativo del peso, desarrollo, metodologías y temas de los enunciados que se han trabajado. El trabajo de proyectos se centra en simular todos los conocimientos, herramientas y experiencias del mundo práctico y laboral. Los proyectos se suelen dividir entre 2 y 6 fases, siendo la mayoría de casos 4 fases, habiendo influenciado el método de diseño del principio de las 4D's, la búsqueda del problema. Bruno Munari es de los autores que más se repite en las bibliografías de las enseñanzas. Se pone de manifiesto la existencia de una serie de oportunidades dentro de la asignatura de proyectos: la posibilidad de trabajar proyectos reales, relacionándose en trabajo cooperativo y aprendizaje servicio a la comunidad o al sector industrial, cultural o social. La mayoría de enunciados generan la limitación de un contexto como es una marca, una limitación tecnológica o un espacio concreto de intervención.
Formación en diseño

Room 1	**Sesión en inglés: Fashion and Apparel Design**
Room 2	**Sesión en inglés: Health and Public Welfare in Design Practice**
Room 3	**Sesión en inglés: Aesthetics: Practice and Process**
Room 4	**Sesión en inglés: Inclusive and Anti-establishiment Design**
Room 5	**Sesión en inglés: Breaking Boundaries: Customization, Co-design, User Participation**
Room 6	**Sesión en inglés: New Directions in Design Education**
Room 7	**Talleres en inglés**
15:50-16:00	**Pausa**
16:00-16:45	**Sesión plenaria (en inglés)—Marti Guixè, Diseñador Industrial y de Interiores, Barcelona, España y Berlín, Alemania**
	"Ex-designer"
16:45-17:15	**Conversación en el jardín**

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Miércoles, 7 de marzo	
08:15-09:00	**Mesa de inscripción abierta**
09:00-09:20	**Noticias del día**
09:20-09:55	**Sesión plenaria (en inglés)—Ariel Guersenzvaig, Profesor e investigador, ELISAVA Escuela Universitaria de Diseño e Ingeniería de Barcelona, España**
	"Design Ethics: A Dual Challenge"
09:55-10:25	**Conversación en el jardín y pausa para el café**
10:25-12:05	
Room 1	**Sesión en inglés: Graphic Design Education**
Room 2	**Sesión en inglés: Memory, Commemoration, Design**
Room 3	**Sesión en inglés: New Directions in the Technology of Designed Objects**
Room 4	**Sesión en inglés: Design Management and Professional Practice**
Room 5	**Sesión en inglés: Approaches to Design Education**
Room 6	**Sesión en inglés: Architecture and Design in Society**
Room 7	**Sesión en inglés: Branding Strategies and Dynamics**
Room 8	**Adiciones tardías en español**
12:05-13:05	**Almuerzo**
13:05-14:45	
Room 1	**Sesión en inglés: Addressing Creativity**
Room 2	**Sesión en inglés: Visual Design Dynamics**
Room 3	**Sesión en inglés: Design Transforming Society**
Room 4	**Sesión en inglés: Methodological Approaches to Design**
Room 5	**Sesión en inglés: Acquisition and Application of Knowledge: Design and Learning**
Room 6	**Sesión en inglés: Design Pedagogies: Teaching and Learning in the Design Professions**
Room 7	**Talleres en inglés**
14:45-15:00	**Pausa para el café**
15:00-16:40	
Room 1	**Sesión en inglés: Industrial Design Education**
Room 2	**Sesión en inglés: Addressing Spatial Dynamics**

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

Miércoles, 7 de marzo	
15:00-16:40	
Room 3	Sesión en inglés: Cultural and Critical Studies on Visual Design
Room 4	Sesión en inglés: Urban Design and Planning
Room 5	Sesión en inglés: Social Awareness and Design Education
Room 6	Sesión en inglés: Establishing and Breaking Boundaries
Room 7	Sesión en inglés: Design Practices Responsive to Human Needs
Room 8	Adiciones tardías en inglés
16:40-17:10	Clausura del congreso

Por favor, mire el tablón de anuncios que se ubica al lado de la mesa de inscripción para consultar los cambios en el programa.

María Angélica Bernal Villamil	Universidad Antonio Nariño	Colombia
Natalia Cadena	Universidad Santo Tomás	Colombia
Bernardo Antonio Candela Sanjuán	Universidad de La Laguna	España
Vanessa Cantu	Universidad Autónoma de Nuevo León	México
Yeferson Cespedes	Universidad Antonio Nariño	Colombia
María del Mar Cuevas Riaño	Universidad Complutense de Madrid	España
Laura De Miguel Álvarez	Escuela Superior de Ingeniería y	España
Guillem Ferran	Tecnología Universitat Ramon Llull	España
Sheila González Mardones	Universidad de Barcelona	España
Donald Granados	Instituto Tecnológico de Costa Rica	Costa Rica
Carlos Marquez	Universidad de Nottingham Trent	Reino Unido
Beatriz Martínez Villagrasa	Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona	España
Andrea Lucía Medina Gómez	Pontificia Universidad Javeriana de Cali	Colombia
Bonny Ortiz-Andrade	Universidad de Puerto Rico	Puerto Rico
Nicolás Peña Casallas	Universidad Nacional de Colombia	Colombia
Mayra Pomaquero Yuquilema	Escuela Superior Politécnica de Chimborazo	Ecuador
Tatiana Portnova	Universidad de Granada	España
Lilia Roselia Prado Leon	Universidad de Guadalajara	México
Adriana Maria Rangel Arenas	Universidad Antonio Nariño	Colombia
Laura Dayana Rodríguez Gómez	Universidad Antonio Nariño	Colombia
Karen Rosales Calderon	Universidad Pontificia Bolivariana	Colombia
Jaime Ruas	Escuela Superior de Ingeniería y Tecnología	España
María José Suarez Londoño	Universidad Antonio Nariño	Colombia
Seber Ugarte Calleja	IUCMC	Colombia
Begoña Yáñez Martínez	Escuela Superior de Ingeniería y Tecnología	España

COMMON GROUND | Conference Calendar

Eighteenth International Conference on Knowledge, Culture, and Change in Organizations

University of Konstanz
Konstanz, Germany | **15–16 March 2018**
organization-studies.com/2018-conference

XVIII Congreso Internacional de Conocimiento, Cultura y Cambio en Organizaciones

Universidad de Constanza
Constanza, Alemania | **15–16 de marzo de 2018**
la-organizacion.com/congreso-2018

Eighth International Conference on Religion & Spirituality in Society

University of California at Berkeley
Berkeley, USA | **17–18 April 2018**
religioninsociety.com/2018-conference

Tenth International Conference on Climate Change: Impacts & Responses

University of California at Berkeley
Berkeley, USA | **20–21 April 2018**
on-climate.com/2018-conference

Third International Conference on Tourism & Leisure Studies

Hotel Princesa Yaiza
Canary Islands, Spain | **17–18 May 2018**
tourismandleisurestudies.com/2018-conference

Eighth International Conference on The Constructed Environment

Wayne State University
Detroit, USA | **24–25 May 2018**
constructedenvironment.com/2018-conference

Eighteenth International Conference on Diversity in Organizations, Communities & Nations

University of Texas at Austin
Austin, USA | **6–8 June 2018**
ondiversity.com/2018-conference

Twenty-fifth International Conference on Learning

University of Athens
Athens, Greece | **21–23 June 2018**
thelearner.com/2018-conference

XXV Congreso Internacional de Aprendizaje

Universidad de Atenas
Atenas, Grecia | **21–23 de junio de 2018**
sobreaprendizaje.com/congreso-2018

Thirteenth International Conference on The Arts in Society

Emily Carr University of Art + Design
Vancouver, Canada | **27–29 June 2018**
artsinsociety.com/2018-conference

Sixteenth International Conference on New Directions in the Humanities

University of Pennsylvania
Philadelphia, USA | **5–7 July 2018**
thehumanities.com/2018-conference

XVI Congreso Internacional sobre Nuevas Tendencias en Humanidades

Universidad de Pensilvania
Filadelfia, Estados Unidos | **5–7 de julio de 2018**
las-humanidades.com/congreso-2018

Sixteenth International Conference on Books, Publishing & Libraries

University of Pennsylvania
Philadelphia, USA | **7 July 2018**
booksandpublishing.com/2018-conference

Ninth International Conference on Sport & Society

Florida International University
Miami, USA | **19–20 July 2018**
sportandsociety.com/2018-conference

COMMON GROUND | Conference Calendar

Thirteenth International Conference on Interdisciplinary Social Sciences
University of Granada
Granada, Spain | **25–27 July 2018**
thesocialsciences.com/2018-conference

XIII Congreso Internacional de Ciencias Sociales Interdisciplinares
Universidad de Granada
Granada, España | **25–27 de julio de 2018**
interdisciplinasocial.com/congreso-2018

Eleventh Global Studies Conference
University of Granada
Granada, Spain | **30–31 July 2018**
onglobalization.com/2018-conference

Eleventh International Conference on The Inclusive Museum
University of Granada
Granada, Spain | **6–8 September 2018**
onmuseums.com/2018-conference

Aging & Society: Eighth Interdisciplinary Conference
Toyo University
Tokyo, Japan | **18–19 September 2018**
agingandsociety.com/2018-conference

Eighth International Conference on Health, Wellness & Society
Imperial College London
London, UK | **20–21 September 2018**
healthandsociety.com/2018-conference

VIII Congreso Internacional de Salud, Bienestar y Sociedad
Imperial College London
Londres, Reino Unido | **20–21 de septiembre de 2018**
saludsociedad.com/congreso-2018

Third International Conference on Communication & Media Studies
University of California at Berkeley
Berkeley, USA | **18–19 October 2018**
oncommunicationmedia.com/2018-conference

Eighth International Conference on Food Studies
University of British Columbia - Robson Square
Vancouver, Canada | **25–26 October 2018**
food-studies.com/2018-conference

Spaces & Flows: Ninth International Conference on Urban and ExtraUrban Studies
Marsilius Kolleg, Heidelberg University
Heidelberg, Germany | **25–26 October 2018**
spacesandflows.com/2018-conference

Ninth International Conference on The Image
Hong Kong Baptist University
Hong Kong SAR | **3–4 November 2018**
ontheimage.com/2018-conference

IX Congreso Internacional sobre la Imagen
Universidad Baptista de Hong Kong
RAE de Hong Kong | **3–4 de noviembre de 2018**
sobrelaimagen.com/congreso-2018

Fifteenth International Conference on Environmental, Cultural, Economic & Social Sustainability
UBC Robson Square
Vancouver, Canada | **17–19 January 2019**
onsustainability.com/2019-conference

Nineteenth International Conference on Knowledge, Culture, and Change in Organizations

UBC Robson Square
Vancouver, Canada | **21–22 February 2019**
organization-studies.com/2019-conference

XIX Congreso Internacional de Conocimiento, Cultura y Cambio en Organizaciones

Universidad de Columbia Británica, Robson Square
Vancouver, Canadá | **21–22 de febrero de 2019**
la-organizacion.com/congreso-2019

Fifteenth International Conference on Technology, Knowledge, and Society

ELISAVA Barcelona School of Design and Engineering
Barcelona, Spain | **11–12 March 2019**
techandsoc.com/2019-conference

XV Congreso Internacional de Tecnología, Conocimiento y Sociedad

Elisava Escuela Universitaria de Diseño e Ingeniería de Barcelona
Barcelona, España | **11–12 de marzo de 2019**
tecno-soc.com/congreso-2019

Fourth International Conference on Tourism & Leisure Studies

Florida International University
Miami, USA | **16–17 May 2019**
tourismandleisurestudies.com/2019-conference

Ninth International Conference on The Constructed Environment

Centro Cultural Vila Flor
Guimarães, Portugal | **23–24 May 2019**
constructedenvironment.com/2019-conference

Nineteenth International Conference on Diversity in Organizations, Communities & Nations

University of Patras
Patras, Greece | **5–7 June 2019**
ondiversity.com/2019-conference

Tenth International Conference on Sport & Society

Ryerson University
Toronto, Canada | **20–21 June 2019**
sportandsociety.com/2019-conference

Twelfth Global Studies Conference

Jagiellonian University
Kraków, Poland | **27–28 June 2019**
onglobalization.com/2019-conference

Fourth International Conference on Communication & Media Studies

University of Bonn
Bonn, Germany | **26–28 September 2019**
oncommunicationmedia.com/2019-conference

No Boundaries Design

Design Principles & Practices

13th International Conference

1st to 3rd March 2019

Saint Petersburg State University

Call for Papers
We invite proposals for paper presentations, workshops/ interactive sessions, posters/exhibits, colloquia, innovation showcases, virtual posters, or virtual lightning talks for the 2019 Conference.

XII International Conference

Design Principles & Practices