

making and unmaking the environment

Making and Unmaking the Environment
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Design and designers hold an ambiguous place in contemporary environmental discourse. They are alternatively being blamed for causing environmental problems, and hailed as possessing some of the competences that could help solving those problems. Despite this long-standing centrality of design to environmental discourse, and vice versa, these interrelations remain underexplored in design historical scholarship.

Half a century ago, Leo Marx coined the phrase 'the machine in the garden' to describe a trope he identified as a prominent feature of 19th and early 20th century American literature, in which the pastoral ideal is seen as disturbed by the invasion of modern technology. Marx subsequently shifted perspective from this fascination with 'the technological sublime' to a deep concern for the environmental ramifications of technological progress. The question of how we as society deal with the allegorical machine in the proverbial garden is more relevant than ever. Design is both making

and unmaking the environment. Conversely, it might be argued that the environment is both making and unmaking design. This conference seeks to explore how these processes unfold, across timescapes and landscapes, thus opening a new agenda for the field of design history.

In the anthropocene, we can no longer talk about design (and) culture without also talking about design (and) nature. The conference theme is intended to stimulate new directions in design historical discourses that take seriously design's complex interrelations with nature and the environment. Not only does design feature prominently in the making and unmaking of the environment; studying the history of these processes will also help reveal how the idea of the environment itself has been articulated over time. Engaging with issues of environmental controversies and sustainable development can move design history beyond its conventional societal significance, and may thus enable more resilient futures.

In the public eye

Chair:
Harriet Atkinson

Venue:
Seminar room 1



Rehabilitating a 'Climate Criminal':
Overhauling the SUV for Environmentally
Conscious Times

Paul Hazell, University of Worcester

This paper explores the background and responses to the growing criticism of car manufacturers with regard to environmental responsibility. It examines how public relations, marketing strategy and latterly the re-design of products and processes have been used to address the accusation of environmental irresponsibility levelled at such brands.

In the early 2000s with the growing popularity of 4x4 'Sports Utility Vehicles' amongst car buyers the environmental impact of SUVs began to attract increasingly negative media attention due to their higher than average CO2 emissions. Companies such as Land Rover were particularly vulnerable to such criticism as sales of its large prestige models, the Range Rover and the Discovery, grew in popularity and were increasingly being used in urban settings. In 2005 Greenpeace singled out Land Rover for particular condemnation and accused the then parent company, Ford, of being a 'climate criminal'.

It can be argued that before such campaigns, Land Rover had been slow to address concerns with regard to its products and their impact. Initially, as the company attempted to grapple with questions regarding environmental responsibility, it largely characterised the issue as being the responsibility of the owner or operator. Later 'carbon offsetting' at the time of vehicle purchase was introduced as a way of addressing emissions concerns, however such strategies were not without criticism from environmental campaign groups. This was to lead to a more fundamental change in the company's approach to the environment with (re)design of both product and processes becoming increasingly important for creating a sustainable corporate future. Developments may have been driven by a public relations imperative, but with Land Rover attempting to repositioning itself as a responsible environmental innovator it has sought to turn a reputational vulnerability into a marketing asset through design.

The Cooper Hewitt, Socially Responsible Design, and Activism 2010-2017

David Raizman, Drexel University

This paper examines the role of museums in constructing the public meaning of sustainable and related socially responsible design initiatives by focusing upon two exhibitions held at the Cooper Hewitt National Design Museum in New York in 2010 and 2016/2017. “Why Design Now” (2010) was the fourth Design Triennial for the CH, but the first that was international rather than national in scope. “By the People: Designing a Better America” (2016-2017) was the last of three smaller exhibitions devoted to issues of socially responsible design (part of the series titled “Design with the other 90 %”), centering on community-based rather than designer-led initiatives undertaken on a variety of scales. “By the People” was curated by Cynthia E. Smith, who holds the title “Curator of Socially Responsible Design” at the CH. In both exhibitions the CH included the environment as an integral component of an ongoing design discourse, framing the subject in relation to social responsibility, accessibility, and empowerment. At the same time, the two shows intersect with broader concerns about the role of government and business sponsorship of museum exhibitions, the movement of responsible design from the fringes to the mainstream, and the transformation of an activist dynamic that has generally characterized various strands of an earlier and more radical design practice and criticism. Negotiating such potential conflicts of interest becomes part of the challenge for the museum, its curators, its sponsors, and the engagement of its audience.

A careful study and comparison of these two exhibitions will highlight the subject of design in relation to environmental and other socially responsible concerns, touching upon themes of activism, technology, authorship, business, and the role of the museum in mediating the meaning of contemporary design to the public.

Alessandro Mendini’s Casabella, MODO and Domus: The Fluctuations of The Ecological Discourse in Three Italian Architecture and Design Journals (1970-1985)

Daniela Prina, University of Liege

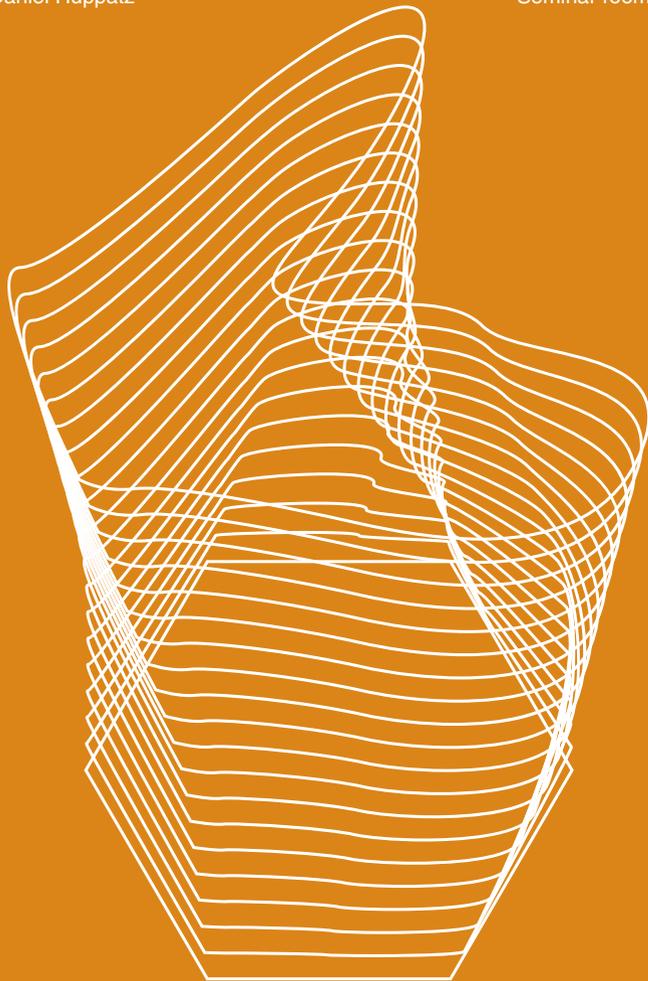
The association between the natural and cultural landscapes has always defined Italian ecological struggles since their inception in the 60s. The protection of the natural landscape indeed overlaps with the preservation of cultural heritage, stressing the link between architecture, design, craft and the environment. Therefore, between the 60s and the 70s, environmental issues started to be discussed in Italy not only in specialised publications or national newspapers, but also in architectural and design magazines, which, at the time, were promoting a critical discourse on the discipline. Three of them in particular – Casabella, MODO and Domus – were engaged, under the editorial guidance of architect Alessandro Mendini, in constructing an ecological consciousness by promoting a sort of new humanism, in which science, technique, social interactions and design were conceived outside of the traditional productive and economic framework.

Moreover, Casabella, MODO and Domus addressed, in the years between 1970 and 1985, the necessity of encouraging an ecological awareness through the redefinition of design practices. This paper will examine these journals’ ecological discourses, identifying how Mendini’s clear and systematic editorial line provided structure to the issues with targeted essays and policies of visual communication emphasizing the association between architecture, design and the environment. It will also discuss how the ecological discourse promoted by Mendini and his circle changed over the years and impacted their productions in the considered time-frame.

Eco-fiction

Chair:
Daniel Huppatz

Venue:
Seminar room 2



Imaging Popular Eco-Dystopias

Dori Griffin, Ohio University

What can the cover designs of popular dystopian novels reveal about the evolving nature of how humans have imagined and pictorialized our impact on the environment? The paper examines the covers of J. G. Ballard's *The Drowned World* (1962), Harry Harrison's *Make Room! Make Room!* (1966), John Brunner's *The Sheep Look Up* (1972), Octavia Butler's *Parables* duology (1993, 1998), and Margaret Atwood's *Maddaddam* trilogy (2003, 2009, 2013). Unlike popular dystopias characterized primarily by failed socio-political structures, all of these novels imagine a near future in which the environment has been irreparably damaged by human population growth, technological "progress," and the cycle of production and consumption. These particular eco-dystopias were selected for their simultaneous persistent presence in both the scholarly and journalistic literature of science fiction and on crowd-sourced "most popular" lists – for example, the GoodReads "Best Dystopian Fiction" list, for which 23.7k voters logged votes for the top five books on the list; and OpenCulture's "10 Must-Read Dystopian Novels: Our Readers' Picks," with 9.3k social media shares. The earliest of the novels was published the same year as Rachel Carson's *Silent Spring*, and while the 1960s saw the birth of contemporary environmentalism, *The Drowned World* and novels like it were long read within the genre limitations of science fiction, not as prescient eco-parables of a genuinely possible near-future. By the time Atwood's *Maddaddam* was published in 2013, a human-designed environmental disaster of global scale seemed not only possible but potentially unavoidable. This paper will examine two interrelated themes as illustrated by chronologically and visually diverse cover designs for each of the novels: first, the evolving strategies for aestheticizing fictional eco-dystopias even as real-world eco-disasters escalate; and second, the ways in which our historically-situated imaginaries of the post-apocalyptic environment intersect with and influence our capacity to picture human-designed environmental disaster.

Letting off Steam? Unpicking Steampunk's Sustainable Design Retrofuture

Sally-Anne Huxtable,
National Museums Scotland

By recentering the nineteenth century within a twenty-first-century context, steampunks are able to confront issues relating to gender equality, colonization and imperialism, environmental conquest, late consumer capitalist notions of human/object relations, and so on. – Suzanne Barber and Matt Hale, 'Upcycling the Past, Present, and Future in Steampunk', 2013

Since the term 'Steampunk' was coined in 1989 by K.W. Jeter, this idea of a Victorian 'retrofuture' has spawned an entire subculture and /or cultural movement. Although a number of academic works have looked at the literature of Steampunk, very little critical work has engaged seriously with the visual and material culture associated with the movement.

This paper seeks to unpick the frequently made claim that the emphasis on making and upcycling in Steampunk visual and material culture makes it a sustainable and environmentally-friendly practice. In particular the paper will examine two aspects of Steampunk making: Firstly 'tinkering', in which existing components are reconfigured and repurposed to create entirely new objects, and secondly, 'Steampunked' objects, where the appearance of existing 'found' objects is transformed in alignment with Steampunk aesthetics. It will examine whether Steampunk can be described as part of a larger 'Romantic Movement' which, 'has the potential to point the way towards humanity's next great shift in worldview, towards a more holistic balance between technology and ecology, between matter and consciousness...' [1] or, conversely, whether Steampunk's inherent reliance and focus upon aesthetics, materiality, machines and steam, and the increasing commercialisation of many aspects of Steampunk in popular culture, negates it as a sustainable way of living.

[1] Dara Fogel, 'Steampunk at an Indicator of Paradigmatic Shift', *FANS Conference, Dallas 2014*

A Cityless and Countryless World: Utopias of Dispersal, 1871-1933

Nathaniel Walker,
College of Charleston

Critics of the social and ecological costs of sprawling automobile suburbs often lay blame at the feet of design professionals such as Le Corbusier or Norman Bel Geddes. It has long been known, however, that Ebenezer Howard—founder of the Garden City movement and thus one of the most influential early advocates of decentralization—was inspired to enter the field of urban planning not by an education in design, but rather by the pages of a provocative science-fiction novel. This was Edward Bellamy's international bestseller *Looking Backward: 2000-1887*, a manifesto of utopian political reform published in Boston in 1888. The book's urban design content is scarce but dramatic, and typical of dozens of other, less popular but more detailed prophecies published before and after, in both Britain and America. In the latter portion of the nineteenth century and continuing into the twentieth, well-known authors such as Edward Bulwer-Lytton and H.G. Wells repeatedly issued pleas for the eradication of dense cities and their replacement with high-tech garden suburbs. They also called for the appropriation of "wasteful" and "empty" natural habitats, so that every square inch of the planet might be rendered down for economic exploitation. Less well-known authors, with backgrounds ranging from college professor to street peddler, followed suit with titles such as *A Cityless and Countryless World* (1893) and *The World a Department Store* (1900). Tracing, contextualizing, and analyzing these vivid proposals can shine new light on the public anticipation and reception of modern suburbia. The home-buying public was, after all, also the reading public; many members of that public joined the authors of utopian science fiction to operate motorcars and populate suburbs with their imaginations long before their bodies could follow.

Forest Green:
Ecotopian Design for Travel, Sport and Food

Chair:
Joan Greer

Venue:
Seminar room 3

Ecotopia as envisioned in Ernest Callenbach's 1975 novel was a separatist, sylvan idyll in the Pacific Northwest. This core model of the countercultural rejection of American post-war mass consumption and constrained social mores was imagined through tropes of leafy, folk communities, yet its inhabitants still embraced the selective adoption of technology in realizing 'greener', freer futures. The papers in this panel examine how utopian thematics of the novel (localism, sport and urban food production) resonate in designed projects in the contrasting contexts of France, the United Kingdom and the Netherlands. Dystopian and ecotopian narratives cohabit within each design case study: agoraphobia and landscape motifs in maritime transport design, a green stadium amidst the constraints of urban planning and discourses around bacteria and the multivalent design opportunities around fungi. Whilst these three projects each embrace primordial forests as a source of positive identification and 'green' futures, they nonetheless also typify the persistence and attendant anxieties around science and technology in striving to create ecotopia.

Faux Leathers and Forests: Ecotopia at Sea

Claire O'Mahony, University of Oxford

'[There is] a psychological phenomenon well-known to seafarers: after sometime what does one think of at sea? Land of course! One is so surrounded by this immense liquid expanse that one feels the need to contemplate a small piece of land' (Pierre Mazars 1969: 19). The design strategies of 'Le France', the last ocean liner built at Saint Nazaire, reveal how the cultural imaginary of the forest positioned French identity as an ecotopian alternative amidst the technological and artistic rivalries of the Cold War. The mixed materials and metaphors deployed in the ship's first-class salon resonate with the ambivalences around ecology and technology in Callenbach's epistolary novel which would propose a regionalist, sensual tree-filled idyll a decade later. At first glance the Fontainebleau Salon, orchestrated by Maxime Old, embraces technocracy. Throughout this fluorescent-lit space for dance and conversation, and indeed the whole ship, only fire-proof unsustainable materials were deployed. Old's mid-century modern reworking of the club armchair was manufactured in two of the 'wonder' materials which re-asserted France's place in post-war industrial manufacturing: light-weight aluminium and 'Rislan', a new polyurethane-based imitation leather upholstery. The one exception to the strict fire regulations was accorded to artistic wall treatments. The walls of Fontainebleau salon are covered with vast tapestries executed by the Pinton frères firm of Aubusson. Their motifs saturate this Atomic Age interior with the sensual and mythic cultural imaginary of the forest suggesting a self-contained ecotopia amidst the physical and political dangers of the mid-Atlantic. The project of this last ocean liner and its sylvan decoration amidst the explosion of jet-age travel proposed a narrative where France's regional forests offered a supra-temporal, transnational antidote to both the agoraphobia of traveling across vast oceans and the anxieties about France's marginality amidst Cold War struggles for cultural and technocratic authority.

Wild Rovers: Ecology and the Modern Football Club

Mike O'Mahony, University of Bristol

In 2012 Forest Green Rovers, founded in 1889 in the leafy surroundings of Nailsworth, Gloucestershire, became the first European Union EMAS (Eco-Management and Audit Scheme) accredited football club. It remains, to this day, the only club globally to have acquired this status. Claiming to be 'the most sustainable football club in Britain, probably the world', Rovers are leading the way in the development of sustainability in sport. Its activities have included: recycling under-pitch and stadium-roof water; the use of the first solar-powered 'mow-bot' to cut the pitch; banning the sale and consumption of red meat; and developing a fully organic pitch. The impetus behind the drive to make Rovers a carbon-neutral club began in 2010 when Dale Vince, former New Age traveller and founder of renewable energy company Ecotricity, became a major shareholder and chairman of the club. Recently he launched a campaign to develop a new eco-stadium, the centerpiece of a 100 acre, green Eco Park that aims to bring together the natural and the designed environment. In 2016 Zaha Hadid Architects won this commission to build a 'bold and innovative' stadium 'designed to the highest architectural and sustainability standards'. Constructed entirely from wood, this will be the first of its kind and 'the greenest football stadium in the world'. In line with Callenbach's conception of sport in Ecotopia, the new complex will also provide local sporting facilities to encourage wider participation, not just spectatorship. This paper will explore the proposed design for Forest Green Rovers' new stadium and complex within the wider history and context of sustainability and sport. It seeks to address how ecological issues can inform and challenge conventional ideas about design and sport, as well as considering future possibilities for interactions between ecological and sporting issues as shaped in the design world.

"Fungitopia" and the Nature of Growing

Marjan Groot,
Vrije Universiteit Amsterdam

This paper will address recent appearances and metaphorical meanings of fungi in a city environment in the ways these fungi are presented by contemporary designers and cultured by bio-food enthusiasts. Starting point is the re-use of architecture of a late 1980s tropical swimming 'paradise' in the Dutch city of Rotterdam. This was turned into place for the agricultural industry of growing of oyster mushrooms, allowing for a small start-up initiative to succeed by marketing their food product RotterZwam (a pun of zwam - i.e. fungus - and the name of city). The swimming pool with its transparent dome offers an interesting new and unexpected "food factory" in the city. The ecological aspect gets a further dimension by re-using coffee pads for the mushrooms to grow on. To disseminate their ideas, an attractive website with graphic design and images invite a young audience to eat mushrooms as well as grow their own mushrooms in a box or kit: Their mission statement "all Dutch people as #sink-agrarians" supports a visual design rhetoric of an ecotopia of the Netherlands simply by growing your own mushrooms. On the level of sophisticated 'high design', designers discover the growing process of fungi and mushrooms as basis for a new material, such as mycelium. They "grow" this ecological material and present it to us in the form of designed furniture, shoes, dress, building bricks, and more. These objects have a natural appearance but any further applications seem to remain utopian. Contextualizing their designs, they exhibit them in a very aesthetic manner, such as in a Hortus Botanicus in Utrecht where they complement serious biological research after fungi and bacteria to stimulate public engagement of scientific research. The 'vogue' for mushrooms and bacteria - from which mushrooms are the visible outcome, will be analyzed and interpreted via these examples.

Shakers and Movers

Chair:
Malin Graesse

Venue:
Seminar room 4



Victor Papanek and the Moral Nature of Design

Trygve Ask, Oslo School of Architecture and Design/ Scandinavian Business Seating

Victor Papanek (1923-1998) was an influential agitator for ecological design and had a strong impact in the Scandinavian countries.

This paper will examine the concepts of nature, real and false needs, artificial obsolescence and pollution as they are presented and used in Papanek's seminal book *Design for the Real World: Human Ecology and Social Change* (1971).

In *Design for the Real World*, Papanek argues that the designer must take responsibility for the ecological consequences of the products he or she makes. However he also draws the designer's responsibility further. Papanek sees design primarily as a problem solving activity and consequently the designer, according to Papanek, bears a moral responsibility to resolve what he considers real world problems. According to Papanek these real problems are pollution, hunger, population growth and other threatening ecological disasters. The designer should thus not, according to Papanek, just avoid damaging nature through the products he or she makes. The designer is also morally obligated to be involved in solving the problems that already exist in the world.

My paper will argue that *Design for the Real World* builds on ideas from moralistic design reform movements in the 19th century, coupled with the idea of design seen as problem solving, as developed by the post-war Design Methods Movement.

Papanek Behind the Iron Curtain: Unmaking the Industrial Environment of Socialism

Iva Kostesic, Fedja Vukic,
Zagreb University

Victor Papanek had added a significant effort in analysis and unmaking of mass scale economy of the industrial environment, by way of his seminal book *Design for the Real World*. It is a less known fact that his book was translated as early as in 1973 in Croatia, then the constituent republic of FSR Yugoslavia. Papanek was invited twice to Zagreb to perform an exhibition and lecture in the Gallery of Contemporary Arts, a year after the book was published in Croatia. By the end of the seventies, the book was included in curricula of the humanities and social sciences. It is of research interest to note that the reception of this revolutionary approach to design took place on the other side of Iron Curtain, within the context that started to change its social and economic structure. These changes, eventually, proved unsuccessful and ultimately led the whole state to demise and political collapse by the early nineties.

Were there any recognizable influences of Papanek's ideas within the social context of self-management socialism of FSR Yugoslavia? The concept of design was then already a public topic for at least two decades and it is a curious fact that the University of Zagreb had awarded honoris causa Ph.D. to Papanek in 1986, three years before the first higher education school of design was established within it. Detecting the reasons behind Papanek's strong presence in Zagreb and revealing the influence of his concepts throughout the local context points to some important aspects of ideological modernization. The crisis of mass scale economy, however, formed a strong obstacle to the establishment of design practice. On the other hand, in spite of the collapse of industrial production, ideas on sustainable and inclusive design proved to be influential within the curricula of design education in Croatia.

Emancipating and Sustaining the Environment: Avant-garde Experiments around 1970 in Denmark

Hans-Christian Jensen,
Anders V. Munch,
University of Southern Denmark

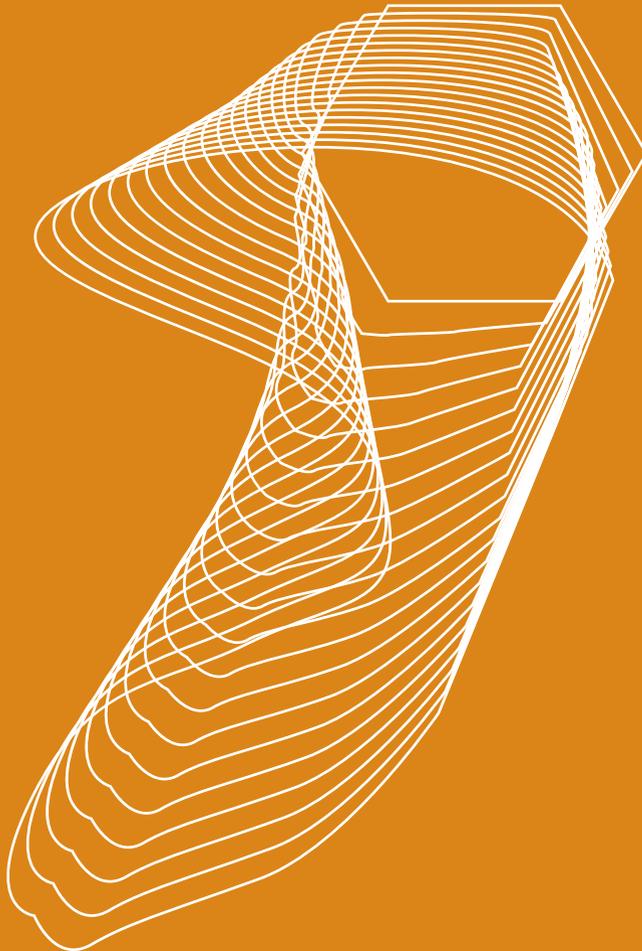
In this presentation it will be argued that the success of designers and design critics in putting environmental issues on the design agenda around 1970 has deeper roots than hitherto pointed out. Lines will be drawn back to the avant-garde of the 1920ties and even further back to the idea of the Gesamtkunstwerk of the Art Nouveau movement. The idea of design as an altruistic agent of radical reform profoundly reshaping and reorganizing human environment through total design lies at the bedrock of design ideology and was effectively reactivated by the Scandinavian avant-garde and activist movements in the second half of the 1960ies.

The outset for the presentation will be an investigation of the radical experiments of the Danish designer and architect duo Susanne Ussing (1940 - 1998) and Carsten Hoff (1934 -) around 1970 which drew much attention and were considered as pointing to the future of design by contemporary design critics. Their activities encompassed exhibitions, teaching and experimental buildings and coincide with the advent of Victor Papanek in Scandinavia. Most notably they arranged provocative multi-sensory exhibitions in established museums, set up teaching facilities outside the academy and did a three-month building experiment using cheap and accessible materials like scaffolding, armoured plastic tarpaulin and cardboard in 'the new society' camp in Thy, Jutland. In the discourse accompanying the activities of the duo themes of objects and buildings as catalysts of emancipation and new ways of living predominate. The concept of 'miljø' [environment] was key in capturing the totality of the social life to reform and the result of the reformed social life. At this point 'miljø' thus could be said to point both back and forth in relation to design in a Danish context.

Norwegian Wood

Chair:
Sarah Lichtman

Venue:
Seminar room 5



Ekebergparken, Landscape and Democracy

Karsten Jørgensen,
Norwegian University of Life Sciences

Ekebergparken Sculpture Park in Oslo is a privately funded sculpture park established on a municipal owned recreational area. The park opened 26th September 2013 after a long period of organized opposition to the realization of the plans. One of several contested elements was the treatment of the remains of a monumental staircase construction from World War II that originally was part of an honorary cemetery for fallen German soldiers and officers.

When this cemetery was built in 1940, the garden architect firm “Norske Hager” was involved. When the war ended, members of arts organizations who were accused of having collaborated with the Germans punished in the so-called “honor trials” after the war. Norwegian Association of Garden Architects conducted such a process in the months after liberation in May 1945, leading to the exclusion of garden architects from Norske Hager.

The construction of the honorary cemetery in 1940 and the creation of Ekeberg park in 2013 thematises the relationship between landscape and democracy, and shows how the changing landscape easily becomes an arena for conflicts of interest. In the paper, these two examples of landscape projects are examined in light of the democratic values like equal access to welfare benefits, transparent decision-making and public participation.

Environment in Cristian Norberg-Schulz' Editorial Work for Byggekunst 1963-1978

Beata Labuhn,
Oslo School of Architecture and Design

Recently, the work of the Norwegian architect-historian Christian Norberg-Schulz (1926-2000) has been raised in connection with terms such as nature, ecology and sustainability (Holl 1993, Ellefsen 2013, Pfammatter 2014). But the relationship between Norberg-Schulz and environmental notions is curious. Hitherto he has been mostly recognized for his architectural implementation of phenomenology and for his re-introduction of *genius loci* in the context of the transition from modernism to postmodernism. While in scholarly evaluations he often comes out as nostalgic and conservative (anti-)modernist.

Does the recent attribution of sustainable ideas to his work make sense? While there is the risk that associating Norberg-Schulz with environmental issues could become pure retrospective greenwashing, it is quite intriguing to note that the notion of sustainability has increasingly embraced ecological concepts that resonate with Norberg-Schulz's ideas about environment. In this light, we might cast him as a progenitor of the current holistic notions of sustainability.

This article focuses on Christian Norberg-Schulz's immediate responses to the 1960's and 1970's environmental awareness in the context of *Byggekunst* – a magazine of which Norberg-Schulz was editor between 1963 and 1978. In various issues (especially 3/1969) Norberg-Schulz addresses the environmental crisis debate and the work of well-established environmental activists such as Rachel Carson or Buckminster Fuller while expressing his own understanding of care for the environment.

Knut Knutsen's Summer House: Invisible and Visible Traces in and of Nature

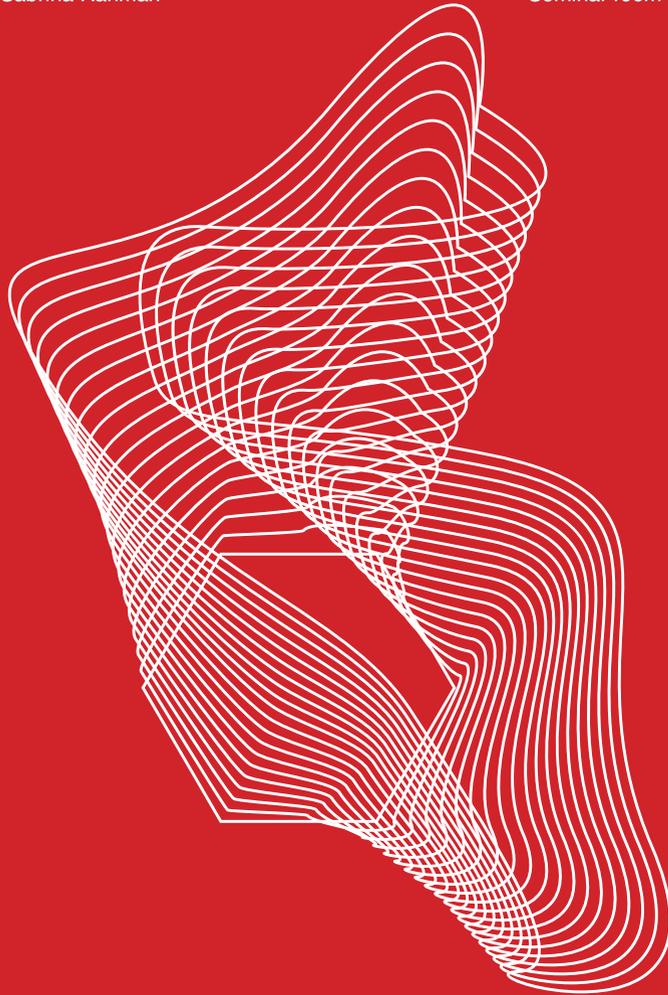
Espen Johnsen, University of Oslo

The paper will discuss the architect Knut Knutsen's design strategy based on his texts and the process behind his own summer house in Portør (1949) in Norway. With his strict personal views on architecture's social, cultural and artistic responsibility, Knutsen has a unique position in Nordic architecture in the first post-war years. When he presented the house in 1952 he commented: "We are never tired of nature, but we can be tired of our houses".[...] "Nature inspire us; for this reason it is important to us to conserve it, which we do when we try to be in harmony with it, when we try to subordinate houses to nature." The cottage was extremely adapted to the site. Hidden between and behind rocky outgroups and pine trees a row of asymmetrical dark ceilings unites two building volumes. The house itself was partly built by recycled materials and furniture, and the textiles were designed by the architect and his wife Hjørdis. Knutsen's house can be regarded as part of an anti-architecture and anti-design culture in the early post-war years. "Freedom from architectonic styles could make the art of building a language of more lasting value" Knutsen wrote. His empathy with the landscape, and way of giving nature a pre-eminence in the layout of his own house, anticipates later ecological attitudes. But how unique was Knutsen's attitude to the design task? The paper will discuss his obsession with making the dwelling partake in the landscape in an as intimate way as possible: How the layout seems to be organic as a natural organism by following the traces on the site, yet also how his thoughts and ideas represents a combination of an organic approach with the use of space and natural materials in modern architecture (Wright and Aalto) and in historical studies of the vernacular.

Planning Urban Landscapes

Chair:
Sabrina Rahman

Venue:
Seminar room 1



Making and Unmaking Wet Cities:
Two Examples, in London and Chennai

Anthony Powis,
University of Westminster

This paper forms part of a larger research enquiry into the production of hybrid urban natures in the relationship between urban planning and weather. In this case, I will discuss attitudes to water management, storage and dispersion in urban (public) spaces, through two examples: one a design and construction project in London, UK; another a historical and theoretical study of urban development in Chennai, India. In both, a close attention to materiality, flows, and prosaic forms of production, will contribute a developed understanding of extreme weather not as a phenomenon outside of society, but as an ongoing co-production of human and extra-human natures.

A commission to design the public realm for ‘Ruskin Square’, a private commercial development on former industrial land in Croydon (unselfconsciously named after the Victorian art critic) sought to test how Ruskin’s early environmentalism and interest in the natural world is applicable to such a development. The resulting landscape is a prototype, utilising innovative technologies of water management alongside ‘base’ material and extensive planting.

Chennai is a rapidly expanding yet fragile city on India’s south-east coast, built on marshlands and water bodies that until recently retained their colonial categorisation of ‘wasteland’. The performance of these wet spaces—considered outside of the built city—has been drastically altered not only by the encroachment of development and dump sites, but also by contamination of groundwater, blocking of feeder creeks, and isolating parts of what was previously a connected system. Drawing on a varied theoretical framework, this paper will follow ‘the water in the ground’—as it percolates and flows through the material urban environment—as it is extracted, embodied, and transformed—as it is recorded, represented, and reproduced—in order to read the city in and through its groundwater.

There's a World Going on Underground: Subterranean Urban Design

Even Smith Wergeland, Oslo School of
Architecture and Design

Western cities are currently going through a phase of reconfiguration in the name of sustainable urban design. An interesting yet inconsistently explored aspect of this 'green turn' is the emerging shift in focus from the urban surface to the urban underground. Throughout modern urban history, the underground has primarily been used as a container for undesired elements such as sewage, waste, pipes, cables and heavy transport. Much of the existing scholarly literature on the underground is either strictly technically oriented – how to construct or mend subterranean objects – or strictly transport oriented (the tube, the metro etc.), thus missing the intricate design potential and broader cultural ramifications at play. Raymond Sterling and John Carmody's *Guide to subsurface utilization* (1993) is a notable exception, as is Dominique Perrault's *Groundscapes* (2016), which introduces a contemporary architectural design perspective. This paper follows a trajectory similar to Perrault's in tracing the cultural and ecological mutations that may occur when the underside of the world converges with the surface-world. The empirical material consists of alternative urban design practices marked by an ambition of utilizing the underground as a sustainable companion to human life on the surface level. These practices involve rainwater harvesting and other technical innovations as well as progressive thinking about the connectivity between above and below, thus encouraging new ways of theorizing urban identity and urban design. Furthermore, the paper challenges the established conception of archaeology as the science of the human past, pursuing instead methodological perspectives from scholars like Ellis Woodman, who revisit historical material in order to understand the present – and the future. While conventional archaeologists dig into the ground in order to uncover what human surface settlements used to look like, we now need to explore the ground itself, as an active, sustainable component of contemporary urban life.

A Garden City in Southeast Asia

Jesse O'Neill, Glasgow School of Art

About 50 years after the release of Ebenezer Howard's *Tomorrow: A Peaceful Path to Real Reform*, the English 'garden city' became a model for the urban aspirations of colonial Malaya. Kuala Lumpur, Kuching and Singapore were among the places that sought to build garden cities. What had originally been a response to nineteenth century industrial expansion was in this context a reaction to early twentieth century laissez-faire urbanism, aiming to beautify city environments, improve public health, and boost commercial investments. From the 1950s, private developers announced plans for 'garden cities', which came to mean a clearing of old settlements and unruly landscapes, and the creation of new recreational settings and modern living quarters.

In 1962, within the climate of political Malayanization, the outgoing Commissioner of the Federal Capital, A.D. York, wrote that Kuala Lumpur would soon become "the most up-to-date city in southeast Asia", a verdant garden city with the most modern facilities. However, it was instead the breakaway republic of Singapore that would soon adopt the garden city as national policy, pushing it to the foreground of urban strategy and national identity construction. From 1965, improvements to public gardens became a key feature of political debate, resulting in new city parks and major planting programmes that transformed roadways and neighbourhoods. By 1968, the Garden City policy had become closely tied to the 'Keep Singapore Clean' campaign, resulting in a holistic transformation of the landscape through both state projects and citizen action.

The purpose of this paper is chart Singapore's Garden City campaign of the 1960s and 1970s, and its development as public rhetoric. The result was an artificial 'natural' landscape, a lush tropical garden that defines the experience of the city, and still today, the identity of the state.

Historical Precedents for Designing Futures

Chair:
Zara Arshad

Venue:
Seminar room 2

The overarching theme of this panel is design and technology in the context of environmental challenges and sustainable transformation. The papers presented in this panel look at particular issues in the intersection of these domains - lifting the role of design in proposed and perceived environmental transformations. Through positioning design philosophically, as media and as practice within historical precedents for proposing and enabling futures, the three papers address:

- 1) The role of design in rhetorics of technology-centred visions in the sustainability discourses and how these can be questioned.
- 2) An interpretation and reflection on the rarely examined creative scope of agency in positioning human movement and behavioral capabilities in technocentric innovation processes - historically and into the present.
- 3) How historical perspectives can offer fruitful critiques of contemporary visions of sustainable transformation in the context of 'smart cities' and urban environments.

In the mid-60s, faced with the challenges of the cold war and the restructuring of the political economy, UK prime minister Harold Wilson called for leveraging the 'white heat' of technology and science to forge a 'new Britain' (Wilson 1963). This optimistic and instrumental approach to technology was questioned by the architect Cedric Price, who in 1966 observed that "technology is the answer, but what is the question?" (Price 1984: 56). Today Price's observation and provocation may serve as a reminder to question and rethink the parameter of dominant discourses of technological futures. Reflecting on Price's question in the context of contemporary challenges, a key challenge for contemporary design practices is not just to develop solutions, but also to use design as a strategy for asking questions and re-thinking the parameters of debate. The panel will take up this challenge by way of discussing historical precedents for technology-optimism and its designs - as practice, narrative, media, objects and experiences.

From Nikola Tesla to Elon Musk – Designing the Spectacle and Mundanity of Technology-Visions

Einar Sneve Martinussen, Oslo School of Architecture and Design

This paper discusses the role of design in envisioning techno-optimistic futures of environmental transformation. It is an examination of the practices of using design to envision, support and communicate technocentric approaches to innovation. We ask how the creative scope of emerging technologies is interpreted and reflected through design, and what this can tell us about the challenges for the designing sustainable futures. We apply the concept of 'technological imagination' to address relations between technology and culture. Balsamo describes 'technological imagination' as the mindset that enables people to think with technology, and to transform 'what is known into what is possible' (Balsamo 2011). This technological imagination is shaped by (and shapes) expression of cultural understanding, for example through design. We address the design and the technological imagination of technology centric visions of sustainable transformation by comparing a selection of historical and contemporary examples: First, Nikola Tesla's illustrated visions of the transformative power of electricity from the beginning of the 1900s and how design contributes to constructing both the spectacle and realism of these technological visions. Second, 'America's Independent Electric Light and Power Companies' mid-1950s marketing campaign about the electric future of domestic life. Here we look at how design is used to connect future visions to present-day realities through using design conventions from industrial and fashion design as 'props' for a near-future. Third, we compare these historical examples with Elon Musk and his car brand Tesla's contemporary visions of sustainable transformation through innovations in transport and technology. Across these examples we discuss how recurring conceptualisation of the technocentric futures have been about the increased control over nature and the natural environment through technology and design. In conclusion we reflect on how this form of dominant technological determinism is closely linked to how we understand design's agency in the context of sustainability transformation.

Movement Matters – Digital Movement in the Shaping of Future Environments

Lise Amy Hansen, Oslo School of Architecture and Design

Movement plays a pivotal, yet rarely considered role in the weaving together of our future social and technical lives (Thrift 2008). This paper discusses developments of digital tools for movement data visualization as normative processes of coded inscription. History allows for a view on movement as a physical, symbolic and aesthetic, and performed material phenomena with which societies are regulated, sustained and developed in a social choreography (Hewitt 2005).

The overlapping of an anatomical body with digital technology entails more than the opportunity to improve performance such as speed or efficiency; it is also a risk-taking prospect in creating new ontological mergers. Movement data mapping has a recursive effect, acting as a memory device as well as informing projective action and adds to the complexity of relationships between digital artifice and sustainability. Thus, variety in movement representations presents an opportunity to trouble and challenge how we may shape our future ways of being, in terms of design values, methods, and reasoning (Bleviss 2007). It is further argued that the sensation of our movements – kinesthesia – allows us to correct recursively, to refine and experiment with the practices we have learned beyond our acquired and coded ways of making meaning (Noland 2009). Digital media technologies are thus fundamental as they mediate and provide stable representations with which to theorise (Lenoir 1998).

These approaches to digital movement form a central, yet rarely examined discourse in positioning future movement, in particular if we are to understand the shaping of our environments as a practice, or a series of practices, rather than merely as a technical operation outside the concern of human agency (Coyne 2010). As such, there is a need to critically couple concerns of human agency, issues of movement and bodily interaction with techno-centered innovation- and design-processes.

Historical Perspectives on Contemporary ‘Smart City’ Thinking

Jonny Aspen, Einar Sneve Martinussen, Oslo School of Architecture and Design

Driven by technology corporations like IBM, Cisco, and Siemens, the concept of the ‘smart city’ has become the central narrative for developing networked technologies in cities, both within corporate research and governance. The smart city describes a vision for an urban future where digital networks, embedded sensors, algorithms, and data gatherings make cities more sustainable, efficient and secure (Townsend, 2013; Deakin & Waer, 2012).

This paper addresses historical perspectives as reference points for critical enquiry of contemporary ‘smart city’ visions. We will examine a selection of key historical examples of urban plans and design schemes, both more visionary and ‘realist’. Our first set of examples consists of modernist urban visions and plans, exemplified by Frank Lloyd Wright’s high-technological vision (1932) of a new decentralized urban system (‘Broadacre City’) and ‘master planner’ Robert Moses’s post-war large-scale planning schemes for New York. This will be followed by a reflection on the critiques of such top-down planning schemes represented by Jane Jacobs (1961) and the advent of new discourses on urban qualities and design (Jacobs, 2006). Our second set of examples is represented by more contemporary ‘smart city’ visions. We will discuss influential examples such as IBM’s ‘Intelligent Operations Center’ for Rio de Janeiro alongside ‘smart mobility’ and ‘sharing economy’ services like Uber. The examples will then be reviewed through the lens of more critical bottom-up perspectives in the tradition of Jacobs.

Our comparison between modernist planning schemes and smart city visions shows that they share many of the same attitudes and principles towards planning. Our analysis also indicates that the techno-optimistic application of digital technologies for solving contemporary planning challenges have much broader implication for urban life and culture than what is addressed in discourses in smart cities.

Flower Power

Chair:
Portia Ungley

Venue:
Seminar room 3



Houseplants and Femininity in the Dutch Home

Ilja Meijer, University of Amsterdam

In this research, two popular and very stubborn opinions about women and women designers have come together: firstly, the belief that women have a 'natural bent for interior decoration'; secondly, the belief that women are 'by nature suited for gardening' and are closer to nature in general. [1]Through the centuries the tradition of keeping living plants indoors has changed, just as their links with femininity and the position of women inside the domestic environment, but neither believes have ever ceased to exist. This lead to the question on how the relation between domestic nature and femininity has evolved over time.

This paper analyses a multitude of historical examples of living nature within the environment of the Dutch home from the 16th century - when houseplants first appeared in the Dutch domestic environment - to the 21st century. Intertwined with this historiographical approach is a critical reflection on the 'touch of femininity' often attributed to indoor gardening. The analysis will conclude with an observation on the current situation, shining a new light on the perception of women versus nature concentrated within the confinements of the contemporary Dutch home.

A pivotal observation is the new generation of botanical enthusiasts that has awoken after the waning popularity of houseplants in the 1980s. To discover what still remains about the two popular opinions about women designers and women at home, I take into account general trends within living culture as well as the works of contemporary Dutch designers. Interestingly, product and interior designers are re-using traditional settings, as well as introducing a whole new language of framing living nature.

Design in the Garden: Questioning Gardening as Environmentalism

Jette Lykke Jensen,
University of Southern Denmark

Thinking of our global environment as a garden this paper will investigate the relationship between contemporary gardening and caring for the 'global garden' (Francis & Hester, 1990). Focus is on the domestic garden as a key locale for engaging with nature and wider environmental issues at an everyday level (Bhatti, 1999; Bhatti & Church, 2001). Today gardening is considered as providing remedy for an increasingly threatened nature through ecological practices (Bhatti & Church, 2004; Franklin, 2002). However, this paper explores how gardening also reflects engagements with nature which causes environmental problems as the practice of gardening is often the materialization of nature-under-control. Such technologized approaches are argued to reinforce an unsustainable relationship with nature (Bhatti, 1999; Dawson, 1990).

The context for studying contemporary gardening is Denmark; characterised as a nation of gardeners. The paper provides a brief history of developments relevant for understanding practices of gardening today e.g. the cultural history of gardens, environmental discourses and industrial production (Ravn, 2000). However, the main analytical focus is the design and materiality of a range of gardening products. Gardening is understood as cultivation and the study objects will be a selection of tools and various containers for planting, watering, harvesting, making compost etc. Within these product categories we can identify manual, motorised and advanced technological versions of tools for gardening. Arguing that a material culture analysis of gardening contributes significantly to interpretations of present day environmental ideas, the paper aims to demonstrate the complexity in terms of how we could understand gardening products and their usage as mediation of different ideologies of nature. Consequently I discuss how gardening by means of design is both making and unmaking the environment – and how design for gardening may contribute to the remaking of the environment.

The Nature of Flowers

Felicity Hall, Royal College of Art

As design historians start to engage with the relationship of nature to design within an environmental context, it is necessary to focus on practices which can be interrogated to produce meaningful research. Floriculture: the design, production and consumption of cut flowers for solely decorative purposes, is resource hungry, and occupies a significant place in national economies such as the Netherlands, Kenya, and Columbia. Floriculture, which encompasses the growing, the harvesting, the trading, and the arranging of cut flowers therefore represents a valuable locus of enquiry, dependant as it is on environmental factors such as water, temperature, and transportation fuels.

With the exception of works by Catherine Ziegler (2007), A N Hughes (2000), and Jack Goody (1993), there has been no analysis of floriculture as a design practice. The products of floriculture are not seen as designed objects, instead they are rarely differentiated from botanical objects, or are overlooked as due to their impermanence.

This paper will seek to make clear their status as designed objects by examining the processes within floriculture, post harvest to vase. I will be looking at the notion of 'nature' in consumption and its relationship to the environmental implications of floriculture within the specific context of British Flowers Week, New Covent Garden Market's marketing campaign started in 2013.

The cut flower, as object both designed and consumed, illustrates a cultural ambivalence towards nature, growth and decay which has been previously overlooked. The practices associated with the cut flower, rather than being 'off the radar' (Terence Conran 2004), provide a space in which consumers and producers interact with nature conceptually and metaphorically.

Upgrading Waste

Chair:
Jeremy Aynsley

Venue:
Seminar room 4



Upcycling in Historical Perspective

Carl Zimring, Pratt Institute

Over the last two decades, upcycling—the creation of new goods from salvaged ones in a way that increases the value of the material—has become an environmentally conscious form of design. Of late, the term upcycling has become associated with activities on an industrial scale. The allure of upcycling to attack environmental problems associated with waste has made its way to large corporations. The giant shoe company Adidas announced in 2015 a collaboration with designer Cyrill Gutsch's firm Parley to produce a sneaker with a shoe upper made entirely of yarns and filaments reclaimed and recycled from ocean waste and illegal deep-sea gillnets.

Upcycling represents hope for responsible industrial production. The artisanal model of handmade goods differs in scale and process from Patagonia's mass-production of fleece or Adidas's attempts to turn plastics found in the oceans into shoes. The material Patagonia and Adidas use is unrecognizable from its previous incarnation, lacking the shape and branding of its old body or bodies. Industrial upcycling in the 21st century reclamation of materials to produce not only clothing, but automobiles, furniture, and a wide array of mass-produced goods.

This paper provides a historical framework for considering what upcycling is, how it works to divert materials from the waste stream, and what intended and unintended environmental consequences have been produced by this strategy. By using the example of designs employing reclaimed aluminum between World War II and the present, the paper provides a way of discussing and evaluating sustainable design strategies in historical perspective.

**The Re-Used Shipping Container:
Environmental Design and the
Cargotecture Phenomenon**

Rachel Harkness,
The University of Aberdeen

Analysing cargotecture (Martin, 2016), or shipping container architecture, this paper illuminates issues of scale, place and material re-use in environmental design. It draws upon the cultural history of containerization and eco-building and on ethnographic research with eco-designers, dwellers and builders in which the shipping container became unexpectedly prominent. These builders used them because they had finite funds, for the possibility of adapting the containers without much specialist skill, and for the fact that containers provide an instant secure structure.

The tensions and contradictions of cargotecture abound: e.g. as the rusty, journeying variety of used-container proves difficult to work with, even the eco-conscious are drawn to new containers (whose doors don't stick, and that are now available to buy – if at a higher cost). Even when eco-designers are using-up the old – aged containers now straying from their standardised form – the shipping container-as-material tends to determine architecture that is rectilinear, modular and risks being as non-specific to place as a building as it was in its previous life in the world of intermodal transport.

Despite this, the shipping containers of cargotectures are still industrial/post-industrial things being unmade: they are repurposed and consciously untethered from old associations; they are cut open to let in the light, punctured to let in the air. Social, container-thing is turned to 'raw', container-material, and symbolism is turned upon its head: symbol of global trade networks and mass consumer capitalism is turned to speak of thrifty, modest, reasonably low-tech, eco-conscious social design and place-making. In this turning there is also a making, or a remaking: blacksmiths weld containers together, so breaking the monotonous predictability of their dimensions; green roofs are added so to support teeming wildlife zones above; claddings and finishings speak of scales domestic and local whilst also reflecting a sense of interdependence within the wider environment-world.

**Designing Maintenance: Martin Pawley's
Garbage Housing in the 1970's**

Curt Gambetta, Princeton University

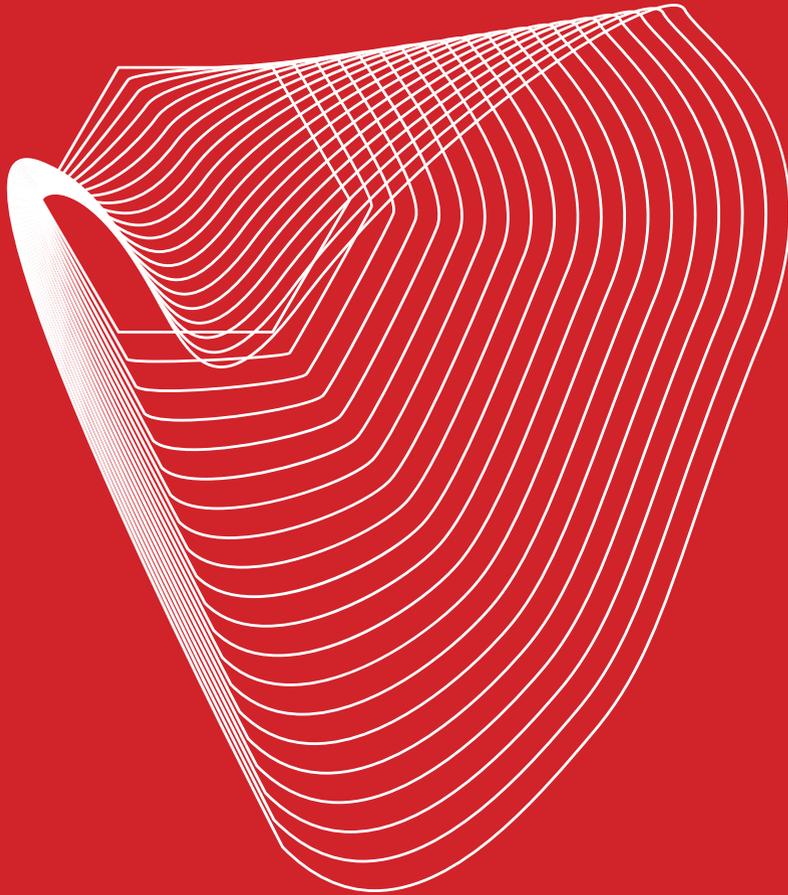
The paper examines the work and writing of British architect Martin Pawley, investigating Pawley's research about the use of consumer waste for the production of housing during the early 1970s. By examining his prototypes of garbage housing for the Allende government in Chile and pedagogical experiments conducted in the United States, I argue that Pawley's "Garbage Housing" research reflected a shift in responsibility over basic social and environmental obligations such as housing and waste disposal during the 1970s. In response to the state's retrenchment from public housing and the growth of private suburbs, Pawley imagined that garbage housing reconnected individuals to large-scale social and technological systems, linking the resource crisis of the 1970s to a growing housing crisis. Like interlocutors such as architects Graham Caine and John Habraken, Pawley's use of waste products such as bottles and cans experimented with responsibility over the care and upkeep of the home by operating on the individual home's connections to common infrastructure. Instead of designing housing, Pawley charged the architect with the large-scale maintenance of 'society's housekeeping,' designing the management of material flows rather than buildings or home plans.

But I aim to show that Pawley and his students discovered another form of maintenance. When used as walls and roofing, discarded bottles, cans and other forms of waste decayed and fell apart. Moreover, they registered traces of their cultural use and dispossession. Ultimately, responsibility for housing fell not on the technocratic circuitry of connections between industry and the state, but rather on the user's capacity to maintain and adapt the garbage house's parts and enclosure. In juxtaposing Pawley's scrappy material experiments with his plans for the large-scale management of resources, the paper will raise questions about the architect's role in environmental problems such as waste disposal, reflecting on maintenance as a form of architectural labor.

New Approaches to Design History (Anniversary Strand)

Chair:
Grace Lees-Maffei

Venue:
Seminar room 5



Design History and Cultural Studies:
Conjunctures, Tensions and Potentials

Ben Highmore, University of Sussex

The institutionalisation and growth of design history within higher education institutions in the UK coincided with the growth of cultural studies (the 1970s and 1980s marking periods of ascendancy and consolidation). Indeed, both cultural studies and design history often shared the same institutional spaces: the arena of contextual studies within art colleges and art schools that predominantly taught practical art and design degrees. While design history and cultural studies might often seem at odds in terms of political objectives and pedagogic strategies, their shared energies become clearer when seen from the perspective of the much larger histories of changing 'structures of knowledge': both fields have sought to open up a space between investigations of authored activity (for instance political history, literary criticism and art history) and anonymous or amorphous activity (sociology, anthropology, economics); both fields have championed an approach to everyday life and to 'new' social and cultural agents.

To demonstrate the potentiality of recognising a conjunctural connectivity between design history and cultural studies I will explore three moments where they have been productively configured. The first is in the discussions at the ICA, London in the 1950s that go by the name of the Independent Group; the second is the magazine BLOCK (1979-89) that was based in Middlesex University; and the third is a selection of current studies that seem to offer new ways of combing design history and cultural studies (for instance Mimi Sheller's *Aluminum Dreams: The Making of Light Modernity* [2014], and Natasha Dow Schüll's *Addiction by Design: Machine Gambling in Las Vegas* [2012]).

Finally, I end with a hope: that a newly invigorated overlap between the two fields could help to renew both in the face of a growing instrumental specialisation and a diminishing commitment to democratic social and political values and practices within higher education.

Histories of Design Research Failures

Søren Rosenbak, Umeå University

This is the central question posed by Design Research Failures (DRF), a research project that started out as a successful response to the Design Research Society's (DRS) 50th Anniversary call for projects that "furthers our understanding of the origins of design research as well as the role that the DRS has played in its development". After taking the format of an interactive exhibition at DRS2016, DRF developed into an online conversation platform at <https://designresearchfailures.com/>. Additionally, the project has had a presence at RTD2017 and PhD by Design 2017.

In the frame of DRF, addressing failures is not about reflecting on "why didn't we" but instead taking a shortcut towards "why don't we". In this sense DRF is about nothing less than anticipating and co-creating the future of the design discipline. However, while every response to the central question posed is constructively forward facing, it is also deeply rooted in design history. Just like each response effectively challenges our understanding of success, so does it confront us with our historical understanding of our discipline.

I believe the 40th anniversary DHS Annual Conference presents a great opportunity for collectively articulating and discussing the role of design research failures in a historical context, as a way to make and unmake design history. Design historians have an incredibly valuable perspective to add to the question of how design research has failed, as evidenced by the ever-present reflection across the responses: "How did we get to this point?" While much ground of course has already been covered in design history, DRF presents itself as an alternative critical lens for the making of new histories as well as the unmaking of established ones, with the potential of bringing new perspectives to the fore.

The Environment as 'Context' in Design Historiography

Joana Meroz,
Vrije Universiteit Amsterdam

Context stinks. – Rem Koolhaas

That design ought to be understood in terms of its 'environment' has become a moot point in design scholarship. Yet, what design's environments are, what role design plays in their making, and how to study their relationship are still contested topics in need of elaboration. This paper contributes to these debates by contextualizing the changes in the use and meanings of the notion of the environment as design's context in design historiography and by proposing a 'new materialist' approach to the relationship between design and its environment beyond anthropocentrism.

In the 1980s, design historians seeking to bypass the difficulties associated with the discipline's approach to design as an aesthetic phenomenon turned to the idea that the surroundings of design—its social, economic, political circumstances—provide insights into its meanings. This strategy has contributed towards the (necessary) 'de-essentialization' of design as autonomous object. Yet, it has also covertly introduced a problematic and tenacious anthropocentric perspective on the relationship between design and its environment, implying as it does an understanding of design artefacts as passive and empty vessels whose arbitrary meanings are inscribed by its social contexts. In contrast to this 'culturalist' approach to materiality, a recent body of research labeled 'new materialism' views the material world not as a reflection of social relations, but as having agency to create them. Rather than predetermining design's contexts, this perspective entails instead the examination of the ways in which the materiality of design creates its own times and its own spaces and where these idiosyncratic environments do not necessarily coincide with those of established and conventional—read: human—geographies or temporalities. As such, this approach offers a way to rethink afresh the relations between design and the environment in times of the Anthropocene.

Chair:
Lisa Godson

Venue:
Seminar room 1



The Artificial Panoramas of Superstudio

Matthew Holt,
University of Technology Sydney

Beginning with a detailed profile of Superstudio's commissioned "microenvironment" for the 1972 exhibition at MoMA, Italy: *New Domestic Landscape*, this paper examines the iconography deployed by the radical Italian design collective across its projects—grids, lattices, histograms and, above all, natural phenomena: deserts, lakes, and mountains—to determine the group's distinctive approach to figuring the complex phenomenon of environment. The grid, for example, can be seen not only as a "network," but as an essential part of a more encompassing landscape, a panorama interpellating the viewer in a manner substantially different to other systems of representation, including the grid as employed by modernist art. The paper will argue Superstudio creates a number of identifiable scenes—and therefore a complete scenography—which function as a design language intended to mix the observer and the observed, the tangible and intangible, and psychotopics (Superstudio's "mindscapes") with a specific geomorphology.

Particular focus will fall on the ambivalent nature of the landscape as a framing device or panoramic figure through which the Superstudio grid flows: the landscape oscillates between encapsulating an environment and displaying a profound indifference to it. The spatial imagination of the Superstudio projects, whether filmic, graphic or architectural, is not simply a reinvestment of Renaissance and Cartesian rationalist grid with contemporary mediatic intelligences and artifacts, but an echo of the picturesque landscape genre, invoking the tradition of the impassive ruin in the scene. Together they form a unique "panperceptual" environmental imagination.

This argument is made to shift the debate on Superstudio and, *mutatis mutandis*, Italian radical design and architecture, from an emphasis on de-realization ("life without objects") to a more active attempt at giving symbolic form to an emergent discourse (or episteme) of the environment, to what the group called the "artificial panorama."

Pattern Watchers

Larry Busbea,
The University of Arizona

Every modernist generation has had its own culture of pattern. From the “fearful symmetry” of the Romantics, the Victorian’s Grammar of Ornament, Haeckel’s *Kunstformen der natur*, to the 20th century systems of D’Arcy Wentworth Thompson, Matila Ghyka, and Buckminster Fuller’s “geometry of thinking.” Nonetheless, patterns attained a particular significance in the arts and sciences in the 1960s and 70s, precisely at the moment that models and theories of environment were coalescing. This was no coincidence. As this paper will argue, pattern constituted a formal/conceptual category that promised to unify myriad disciplines, and which became the veritable raw material for systems-based anthropologies, environmental psychology, and ecologically adaptive models of design. I will discuss these developments by briefly surveying the work of cybernetician Gregory Bateson, artist Gyorgy Kepes, and architect Christopher Alexander.

Patterns proliferated at this moment as meaningful forms, perceptible sets of phenomena made not from tangible substances, but mathematical qualities such as symmetry and repetition. They were shapes pulsing in time and truncating in space, phasing in and out of material reality. They were often the only entity linking the invisible yet undeniable presence of environment with the substantiating powers of human perception. But the closer patterns came to being explicated as observable objects, the more they embedded themselves as attributes of the observing subject. In other words, patterns were understood as verifiably “out there,” and simultaneously as virtual or potential structures to be realized, or designed.

This paper will explore the aesthetic and ideological vicissitudes of several attempts (by those listed above) to model or translate pattern into actual design theories or projects: Bateson’s conception of the “flexible” patterned ecology of the metropolis, Kepes’s “pattern-seeing,” and Alexander’s “pattern language.”

Cautionary Tales for the Anthropocene: ‘We are the Asteroid’

Renata Tyszczyk,
The University of Sheffield

The Anthropocene, or colloquially, ‘the Age of Humans’, is the name proposed for the geological epoch or story we are supposed to have stumbled into (Crutzen & Stoermer, 2000; Crutzen 2002). It has superseded the ‘safe’ and relatively stable Holocene world that we are familiar with. The Anthropocene announces a catastrophe. It is identified by large-scale geomorphic transformations of the Earth’s surface including rapid urbanization, the acidification of oceans, the relentless destruction of biota, and, above all, by disruptions to the Earth’s systems (Zalasiewicz et al. 2010). It is on a par with previous catastrophic episodes in Earth’s deep history. As one scientist puts it, ‘We are the Asteroid’ (Barnosky et al. 2011). The catastrophic event of the Anthropocene brings incommensurable times and scales into collision: geological time folds into the gestures and routines of everyday social life, the global invades the local, planetary energy bears down on a city. The Anthropocene thesis aligns with what Latour (2014) has termed ‘geostory’ – the irruption of human history into geologic time. This is a fearsome story told to try to make sense of the calamity-ridden hybrid world we find ourselves in. The Anthropocene tale, now unfolding in real time, was anticipated by many auguries of human-induced environmental change and extinction events. These included tales of technological, societal and seasonal dysfunctions – disintegrating space-ships, precarious settlements and silent spring followed by nuclear winter. This paper explores both the Anthropocene as the pre-eminent cautionary tale – the story to end all stories – and cautionary tales as a mode of design engagement. It asks: What is the point of cautionary tales in an unsettled world? How might the Anthropocene be enlisted in fabricating narratives that will help carry the human species beyond the confines of a reactionary and anxious culture?

The Human/Non-Human Nexus

Chair:
Finn Arne Jørgensen

Venue:
Seminar room 2



From Decoy Screen to Bird Hide: Design and an Observational Culture of Nature

Sean Nixon, University of Essex

In his account of the pioneering design of ‘the scrape’, the artificial saline lagoons at the RSPB’s Minsmere bird reserve, Bert Axell described ‘the scrape’ as being ‘like Wembley stadium’ in the way it brought birdwatchers close to the drama of wild birds as they viewed from hides around the circular lagoons. The paper explores the post-war history of nature reserve management and design through the pioneering work of figures like Axell. It looks at the way bird reserves like Minsmere reworked the technology of bird decoy screens used by wildfowling into bird hides designed to bring people closer to wild birds. Hides and the creation of semi-natural habitats, together with interpretative signage and nature trails, created not just ‘instructive landscapes’, but were part of a wider post-war observational culture of nature. This shaped a new attention to wild birds that included practices of looking and recording that forged distinctive bird-human relations. These were increasingly ethically distinct from the configuring of wild bird-human relations within associated cultures of nature like wildfowling. The paper deploys Michel Callon’s idea of socio-technical devices developed in relation to markets to understand the designing of nature reserves and their technologies of observation as devices that structure particular kinds of human agency in relation to non-human nature. It is the combination of the footpaths and the observation hides with the optical technologies like binocular that supports and formats new ways of looking at wild birds.

**Boats and Bikes and their Human
Companions: Animating Discourses and
Deeds around Dead Material**

Mikko Jalas, Aalto University

Design is premised on the blurring of humans and the non-humans. Whist foreign to many other disciplines, design accepts that humans may care and feel for and liaise with the material world. Thriving from such a position, the current paper inquires how material objects are loaded with value and agency through discursive representations and practical deeds that singularize, aesthetize, personify and animate objects.

The paper draws on Finnish Internet sites which deal with bicycles and wooden boats. Both of them are subject to aesthetic valorization and animating discourses and deeds. Animism is at times strongly present in the case of wooden boating. This is not surprising; e.g. Marcel Mauss specifically pointed to the alive-alike qualities of craft objects. Bicycles, on the other hand, are appreciated, admired, desired and treated as beautiful machines.

The blending of humans with the material world is not a marginal phenomenon. At the same time, it is a puzzling social phenomenon. Animism is part of the imaginative realm of childhood. Yet, animism among other singularizing discourses and practices are strongly present in the design, marketing and maintenance of consumer products. These practices thus at the same time are relegated as childish imaginations and yet enacted in various everyday processes. Moreover, our abilities to care and feel for objects, places and species are frequently enacted when developing politics over issues such as cultural heritage and the environment.

The currency and practice of animism and aesthetization of everyday life thus varies across the social realm as do the strategic reasons for enacting these discourses and practices. The aim of this paper is to contribute to an ethos of studying the intimate intertwining of human and the non-human and thereby better understand the material politics of design.

**Desert Thinking; or Designing with
the Phantom**

Fattori Fraser, New School

Since 1945 our relation to the environment and human history has fundamentally changed. Extreme environments have become sites of experimentation and paradigm shifting. These technological experiments are eventually rolled out nationally and internationally, and have come to shape the course of history.

The atom bomb marked the advent of the age of the Artificial. At this moment, society witnessed a 'phantom end': the risk of global obliteration, and the social and cultural shifts that accompanied it, without the actual Event. This paper is dedicated to drawing out how human and non-human design responded materially to this phantom end. From clandestine nuclear testing to border control, and from server farms to BigPharma, the American desert acts as a nexus of phantom technologies that contribute to the 'un-making' of the planet.

But amongst these large-scale technologies, there also exist an assemblage of radical technologies within desert spaces in North America: an attempt to 're-make' the environment, imbued with a sense of animism, that undo the dominant myths of modernity. Dissolving boundaries between nature and culture, the desert provides fertile ground for making new connections and social relations between species. Such ad-hoc desert practices can propose design alternatives to our current modes of planning, building and dwelling with environmental strain.

To describe this phenomenon I coin the term 'desert thinking', as a means of posing possible design futures and alternatives: not as 'solutions' to the Phantom, but designing with it. With extreme environmental technologies in mind, 'desert thinking' proposes design alternatives to the status quo and may offer ways of dealing with the onset of global climate change in non-extreme environments.

**Decolonizing Botanical Gardens:
The Violent and
Reparative Gestures**

Chair:
Josie Kane

Venue:
Seminar room 3

This panel would like to discuss the colonial trajectory of botanical gardens and herbaria and ask: can we decolonize the knowledge design of herbaria and repurpose them for an environmental cause and how?

A visit to the botanical garden is often framed as a restorative experience; especially in northern countries where the beautiful heated glass constructions housing non-native flowers and trees provide much needed warmth, light and lively scents in otherwise dark and cold seasons. Yet, the peaceful gardens have a violent history as a green imperialist legacy. Botanical gardens were a crucial colonial invention: designed environments that were both big science and big business critical to Europe's national and trade ambitions. Today, herbaria still retain their colonial gaze. On the one hand celebrating nature, but on the other hand also disciplining and asserting mastery over it. Yet, in light of global warming herbaria have also taken on a new role: as key actors in the global fight against rising CO2 levels. This new – and often self-imposed – role raises fundamental design questions. What are the colonial implications of herbaria and how does the colonial gaze on plants intertwine with that of people? How can herbaria help us understand environments and cultures as fundamentally designed artificials? How can herbaria meaningfully decolonize their collections in solidarity with both previous colonies and with nature? The ambition with this panel is to offer illustrative and conceptual articulations of the knowledge design of botanical gardens in a historic and contemporary context and put forth suggestions about how to decolonize and repurpose them in solidarity with former colonies and nature. We pursue this project by bringing together papers that explore the colonial gaze of herbaria, their knowledge design and their potential reparation. The ambition is to suggest how a focus on 'knowledge design' can ignite scholarly debates across disciplines that may share an interest in sustainable decolonization.

**Knowledge, Design, and the Feral City: the
Urban Meadow as Cosmopolitan
Multispecies Assemblage**

Matthew Battles, Harvard University

What role does the colonial imagination play in the design of botanical gardens, and how might its effects be rendered visible? Boston's Arnold Arboretum is an ideal site for mapping the colonial botanical and for undertaking experiments with a view toward its repair. Over its life, this 281-acre site has seen over 70,000 specimens—many acquired through botanical fieldwork in northern Asia—arrayed in associations meant to bring taxonomic relations into harmonious landscape-design arrangements. The Arboretum was meant to encompass this ordered view of botanical life, exotic and familiar, within a clement vision of nature for the refreshment of urban folk. Beyond its ordered precincts, however, the Arboretum curates an adjacent parcel according to a much different conception of landscape and botanical knowledge: Bussey Brook Meadow, a 24-acre wedge of land situated between the Arboretum and the commuter railway, consists of ground built up by dumping and fill, overspread with native and invasive tree species—all of whom, uninvited and uncurated, have found their way into the ruderal landscape of the meadow. As this “cosmopolitan” community of plants responds to and transforms the meadow, it becomes the site of multiple postcolonial entanglements in a landscape that is never finished, but always under repair. A close reading of these species, their distribution in the meadow, and the stories of their origins as urban life forms with varied forms of life—together with the tensions and complexities of their relations to botanical order in the Arboretum proper—provides glimpses of multispecies stories of natural-cultural becoming.

Decolonizing the Knowledge Design of the Global Plants Initiative

Nanna Thylstrup, University of Copenhagen, Stina Teilmann, University of Southern Denmark

At first sight, the quickly growing databases of mass digitized plant specimens and other herbaria artefacts seem a globalized, well-ordered and silent corner of the plant world. Yet, as historians of science have emphasized, plant collection and its history is far from peaceful. Most plants that were transported to Botanical gardens during the colonial era carry with them a story not only of vitality and curiosity, but also of the violence and discipline of Western men and women who fashioned themselves as all-powerful masters of enslaved peoples and of nature itself. Across 1800-century Europe, it was taught that the exact knowledge of nature was “key to amassing national wealth, and hence power” (Londa Schiebinger). Botanists apart from being plant scientists, were also “agents of empire” (David McKay) propagating a European system of order, discipline and exploitation. Today, botanical mass digitization has given rise to a series of “virtual repatriation” initiatives to counter this colonial history; in various digitization initiatives, plant specimens collected under colonial rule is digitized and returned in digital form to the former colonies. The large-scale programme Global Plants Initiative (www.plants.jstor.org) is a case in point. The online global botanical community differs markedly from 19th and early 20th century botanical networks whose history it in many respects seeks to repair. Yet, as this paper suggests, the knowledge design and institutional politics of the Global Plants remain haunted by colonial history – from the institutional issues of repatriation and access to the colonial gaze in the interface design. Drawing on design theories, postcolonial archival theories and critical data studies this paper looks at the colonial politics of digital botanical collections such as Global Plants, asking: How can we meaningfully think through Global Plants as a postcolonial problematic? And, how can new forms of knowledge design meaningfully decolonize digital plant collections?

Greenhouse: The Western Artificial as Sphereological World Formation

Ahmed Ansari,
Carnegie Mellon University

In *Design and The Question of History*, Clive Dilnot posits that contemporary design today “is in a permanent state of forgetfulness” (Fry, Dilnot, Stewart, *Design and the Question of History*, 151) about its history and the forces that shape it, and in turn, given that the task of design is to think the artificial, leads to (re)formulations of the artificial that obscure, rather than reveal, the way that it has been molded by design over time. Challenging Dilnot’s conception of the artificial as a homogenous historical and global entity in favor of a fractured, disjunctured artificial that has been shaped differently across many different regions and cultures in the world, even in recent history post globalization. Therefore, we posit that any theorizing of the ontology of the artificial must needs develop not only an account of the history of its designing, but also present this history as a spatial history specific to civilizations. We trace an account of designing across the history of Western civilization as sphereological world making, a concept that we derive from the work of the German philosopher Peter Sloterdijk on sphereology. Using the greenhouse as metaphor, we propose that the present artificial can be thought of as a complex assemblage of immune systems that extend globally, and within which both nature and culture exist as cultivated artifice. However, the fact that, in effect, artefactual immune systems with global tendencies do not perform the same way should provide designers with a view towards decoloniality ways to rethink the artificial, both by paying attention to how technical immunological functions change in specific local contexts and by reaching towards local histories of design as non-sphereological making – that border thinking in design means thinking at the borders of where parts of the greenhouse have overgrown and even fallen in.

Upcycling

Chair:
Priscila Farias

Venue:
Seminar room 4



Make and Mend: Upcycling and Recycling
Craft in the North East of England,
c. 1850 – 1920

Janine Barker, Northumbria University

The early twenty-first century in Britain has been witness to a ‘craft revival’. One characteristic of this current revival is concerned with upcycling objects, and repurposing or re-presenting found material. As David Gauntlett puts forth this trend can be linked to growing concerns with the environment, and as part of a well-established idea that the act of making is instinctual, driven by concerns other than economic. However, these lines of enquiry do not fully engage with the evidence that this type of craft has a longer history, albeit motivated by a different set of concerns.

This paper will explore this longer history, with specific reference to ‘boudieware’ from the North East of England. Both ‘made’ and ‘unmade’, boudieware describes decorative plates constructed from broken ceramics and jewellery set in rough clay. The objects used were once objects of the everyday. I will adopt a narrative-based approach, revealing stories about working class domesticity, community, family and identity. I will draw out the narratives that surround these objects in order to offer an alternative understanding of the position of craft in the everyday lives of the Northern working classes. I will close by reflecting on the connections between this type of craft and contemporary uses of upcycled and repurposed material.

This paper marks the beginning of a research project that will explore in depth the craft culture of the working class in Northern Britain. It will establish from the offset the durable and innovative nature of craft.

Raw, Repair, Refurbish: 'Re-Use' Design Culture from India

Saurabh Tewari, School of Planning and Architecture, Bophal

The study is an ethnographic account of primarily two sites from Delhi, which reflect the larger design culture of repairing and refurbishing in the developing context. The clusters at Sarai Kale Khan and Amar Colony houses two of the biggest networks of sellers of 'pre-owned' and 'used' furniture in India. However, both represent different propositions for reusing them. Former focuses on selling in bulk with or without repair and acts as a sustainable disrupter in the design ecosystem; the later thrive on refurbishing the old furniture for retail sale and counter the idea of modern.

Be it desktop tables or office chairs, through their visible storefront and competitive prices, these two sites address much of the need for many new users. When the gradual economic liberalization in the region has propelled the emergence of organized corporate sellers and distributors selling 'modern' furniture objects, both the sites and their practices unfold the minutiae of a new design culture. Aforementioned can inspire contemporary designers to acknowledge and consider 're-use' as an alternative and sustainable discourse. The study offers insights and connects to the larger 're-use' design culture from India and the developing world, as these practices are often not included in the design education and pedagogy modules. It also highlights the ideas of craft, modernity, and sustainability in the whole production-consumption cycle of design culture.

Darn Stylish: Crafting Sustainable Fashion Futures

Angharad McLaren,
Nottingham Trent University

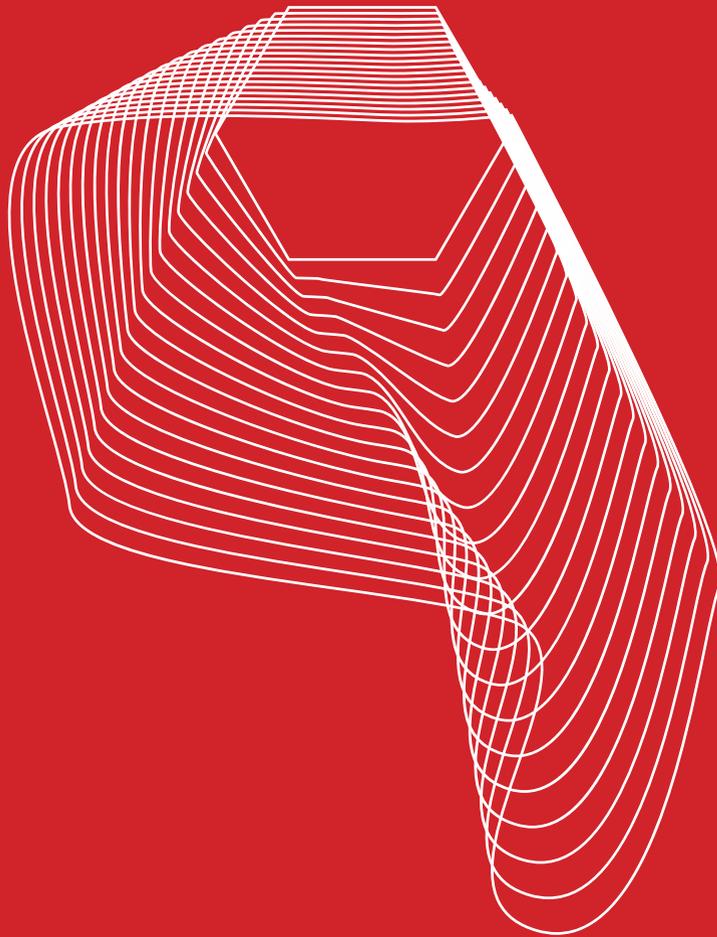
Historically, both the act of repair and the imperfect textile surfaces that result from mending clothes suffer from negative social associations: characterising poverty, 'women's work', times of hardship and wartime necessity, childhood chores, and isolated domestic drudgery (see for example Kelley, 2009; Williamson, 2004; 'The Influence of Women' in Long, 2011; Quinton, 2008; paintings by e.g Snyder: Darning by the Hearth, 1885). These evidently still exist: participants in a Defra study "avoided clothes with visible repairs in order to protect themselves and their families from stigma" (Fisher et al., 2008: 31).

Cheap and easily accessible 'fast fashion' has been largely blamed for changing our relationship with clothing as garments are seen as disposable, disabling basic repair skills (see for example Goworek et al., 2012; You Gov, 2012; Fletcher, 2008; Birtwhistle & Moore, 2007). Conversely however, fast fashion could also be seen as an enabler of a paradigm change: in this era of abundance, traditional socioeconomic perceptions of repair could be argued as entirely outdated "because, frankly, in this age of overconsumption, no one needs to mend anything anymore" (Middleton, 2014). Contemporary mending enthusiasts are already disregarding stigmas and wearing visibly repaired clothes with pride: effectively subverting the social meaning of the altered surfaces. This is significant in sustainable fashion discourse as extending the useful life of clothes has been identified as the most significant intervention in reducing the clothing industry's impact (WRAP, 2012). Informed by research into historical, existing and emerging repair practices, this paper explores mending and repair of clothing. Outcomes from personal craft-led design praxis will be presented; discussion will focus on overcoming traditional perceptions, and ways that design-led approaches can add value to acts of repair, change the meaning of visible repairs, and motivate greater engagement and awareness, to support a more sustainable fashion future.

Spaces and Places of Design History (Anniversary Strand)

Chair:
Grace Lees-Maffei

Venue:
Seminar room 5



On Writing about New Typography from the Margins: Problems and Approaches

Trond Klevgaard, Royal College of Art

Written with the Special anniversary strand: Making and Unmaking Design History in mind, the paper will take problems encountered during the author's PhD research into New Typography in Scandinavian printing as its basis for a methodological discussion of how to write histories of modernism in neglected geographies. In so doing it will revisit design historical discussions of centre-periphery relations and its modifications, along with more recent ideas of networks and the rhizome. Such networks will be considered both in terms of providing a model for thinking about the non-hierarchical and fluid international relationships between different protagonists, and in terms of formalized networks which existed between trade unions and professional associations. Rejecting the notion of «influence», examples will be shown in support of the argument that the theory and practice of New Typography was consciously taken up and modified by Scandinavian printers to suit their aims and cultural preferences in a process described in media and technology studies as domestication, a process which also raises questions of how design should be judged. Moreover, the paper will consider the particular historiographical challenges of the PhD project, which consolidated histories written on printing, typography, applied art, poster art, the avant-garde, and the little magazine. The importance of understanding the professional context the work was designed in will be stressed. In conclusion, the development of New Typography in Scandinavia during the 1930s will be discussed in relation to what printers in the immediate years after the Second World War saw as its revival rather than its continuation in Switzerland and the United States, arguing that for them this did not represent progress, but a return to past ideas with which they had already engaged and extracted the best elements.

Making Room for Design History in Belgium

Fredie Floré, University of Leuven,
Javier Gimeno Martinez,
Vrije Universiteit Amsterdam

In Belgium industrial design officially gained recognition relatively late. The national government recognised the potential of the 'new' discipline around 1955 and it took until the early 1960s until the Brussels Design Centre was established. In the meantime things have changed. In the context of the federalisation of the 1990s design became an item of regional economic politics, resulting in such institutions as Design Vlaanderen (Design Flanders). In the early 21st century the former Ghent Museum of Decorative Arts (founded in the early 20th century) changed its name in Design Museum Ghent. While these and other developments demonstrate the official acceptance of design as a full-blown cultural discipline, the related discipline of design history is still 'under construction'.

This does not mean that the historiography of design in Belgium started from scratch in the last few decades. Early historiography both in Belgium and abroad studied chiefly well-known episodes of Belgian design such as art nouveau and its representatives, especially Victor Horta and Henry Van de Velde. Furthermore, especially the above-mentioned Design Museum Ghent and other institutions such as the Provincial Departments for the Crafts (founded around 1946) have contributed with their exhibitions to the development of a design historiography. Also trade fairs and institutions such as the Brussels Design Centre facilitated historical overviews, launching publications to celebrate their anniversaries.

In the past few decades, inspired by international developments in design history a handful of Belgian scholars shed a new light on the discipline within the context of academia. However, to realise this work they had to make room within other disciplinary fields such as architectural history, art history or the history of interior architecture. While this trajectory of emancipation is not uncommon, it is still far from finalised within the Belgian context.

Learning from History – but how? Design History in Swiss Design Education

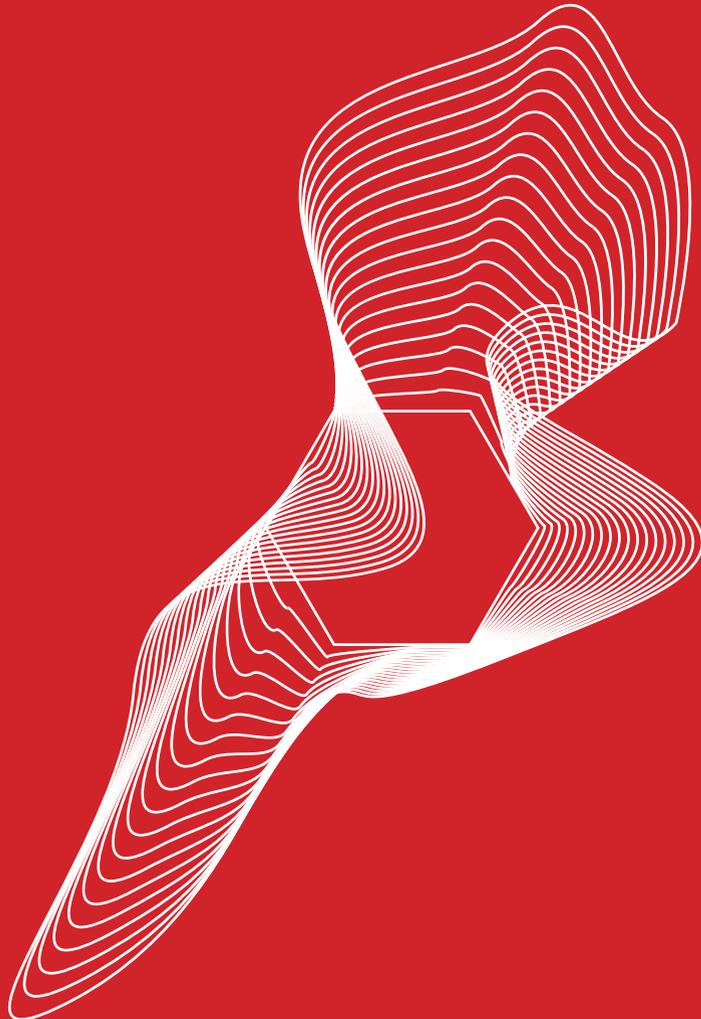
Meret Ernst, Hochschule für Gestaltung
und Kunst, Basel

Switzerland has a rich history of design and design education. Nonetheless, design history lacks any academic affiliation in this country. There is neither a chair in design studies at universities, nor at the Swiss Federal Institutes of Technology, nor at the newly founded Universities of Applied Sciences (UAS). This paper focuses on the reasons why this situation arose and how to profit from it. What does design history mean in a practice based context? Couldn't it contribute to general historiography, considering design as being part of the «third culture of knowledge» (Mareis)? In 1995, the period of vocational education at traditional schools of arts and crafts starting in the late 19th century ended by law. Ever since, all universities form part of a standardized education system following the Bologna reform, enacted in 1999 and established across the EU by 2011. The curricula were shortened from five years vocational training at Art School to three years at UAS to get a BA. This put pressure on all teaching contents seemingly not to be professionally instrumental. Nevertheless, courses in history are compulsory in all design curricula although they're not backed up by design studies. Moreover, UAS have to conduct research by law. But many of them have missed out on researching the history of their own disciplines so far. Hence the question which historiographical approaches (Fallan) could not only meet the demands of a practice based education, but also enrich the discourse of neighbouring disciplines is open to debate. This debate takes place in new networks linking academia with independent experts, practitioners, and researchers. Hence, Switzerland can serve as an example to show why, where, and how design historiography should be implemented as a field of study even in a predominantly practice based education system.

Designing Energy and Politics

Chair:
Michaela Young

Venue:
Seminar room 1



Power in the Landscape: Regenerating the
Scottish Highlands after WWII

Frances Robertson, Glasgow School
of Arts

This paper examines hydro-electric power schemes in the Scottish Highlands after World War Two. While this initiative was seen by modernising central planners as an urgent corrective to the long standing decline of this 'semi-derelict region' there was equal pressure to maintain the artificial wilderness of the Highlands as a 'cultural museum', as a potent focus for various local and national communities of interest.

This paper will examine the design elements, siting and landscape architecture of such specific hydro projects as the Cruachan and Glen Affric schemes as monumental elegiac expressions of the 'Celtic' culture being debated in the Highland region in the period of post-War reconstruction, making reference to the pre-existing historical processes of making and unmaking the Highland landscape as a wilderness area. We consider the testimonies of many voices seeking to shape this 'real imagined community', where we can see an imbrication of design planning, mediation and installation during these significant engineering interventions into natural, human and geomorphological landscapes. The sustainability of hydro electric power schemes, at first glance so clean in comparison to fossil fuel power sources, nevertheless have serious environmental implications. The Highland landscape was particularly charged with significance as a wild 'natural' region; after World War Two it was increasingly also considered as a common 'amenity' subject to public consultation during planning proposals. Thus in the case of the Highland schemes discussed in this paper we see that most argument was couched in terms of stemming human population decline, social justice, and access to the land. Researchers in other areas of history and cultural theory have already opened up new approaches to the examination of the 'material powers' at work in water flows across natural/ designed environments; this paper will consider how these insights can inform and expand current debates within design history.

Design and Prefigurative Politics at the Standing Rock Protest Camps

Jilly Traganou, The New School

My paper considers the NoDAPL Standing Rock protest camps in North Dakota as a case study of prefigurative politics (Breines). The aim of my research is to speculate on the systemic and operative role of design in the protest camps, as both a resource of the imaginary and a capability necessary for creating alternative socio-material formations.

Led by the Sioux tribe, the NoDAPL movement protested plans for the Dakota Access Pipeline to cross treaty land, which posed the risk of contamination to the tribe's water and threatened to violate ancient burial grounds. The protests brought together diverse constituents: members of various Native American communities, environmental activists, US military veterans, and representatives of other indigenous groups. The camps, which were erected starting in April 2016 and dismantled in February 2017, established a form of social organization that was based on practices of collective habitation; bottom-up organization of primary social reproduction structures, from education to health care provision; and use of alternative forms of energy.

The paper asks questions such as: What repertoires of action (Tilly) materialized these protest camps as embodiments of the protestors' ideologies and values? In which ways were new "commons"—public spaces that exist outside of state control and are developed and shared by inhabitants according to their own rules (Caffentzis)—imagined and established? What challenges did protesters face in relation to the environmental and political ideals of the communities (both settler and non-settler) involved? What were the roles of expert and non-expert designers in this process? What could be considered as a sustainability factor of these projects, and how can these be assessed in relation to the protestors' goals?

Second Nature Once Removed – Second Nature (Re)Designed?

Lea Schick, IT-University of Copenhagen

In Copenhagen a new waste-to-energy incinerator is currently under construction. Replacing 'the old drab and industrial-looking power plant, which is indeed quite unwelcoming to the public, the new power plant is designed to 'be part of the city' (slogan) and to attract the public, who is invited to go skiing on the building's roof. The new incinerator is named Amager Bakke (hill) and with its 85 meters it is the tallest 'hill' in Copenhagen. On the roof is a 'nature' park with trees, hiking trails, mountain climbing and skiing slopes. Amager Bakke provides Copenhageners with 'nature experiences' otherwise impossible in the flat landscape of Denmark.

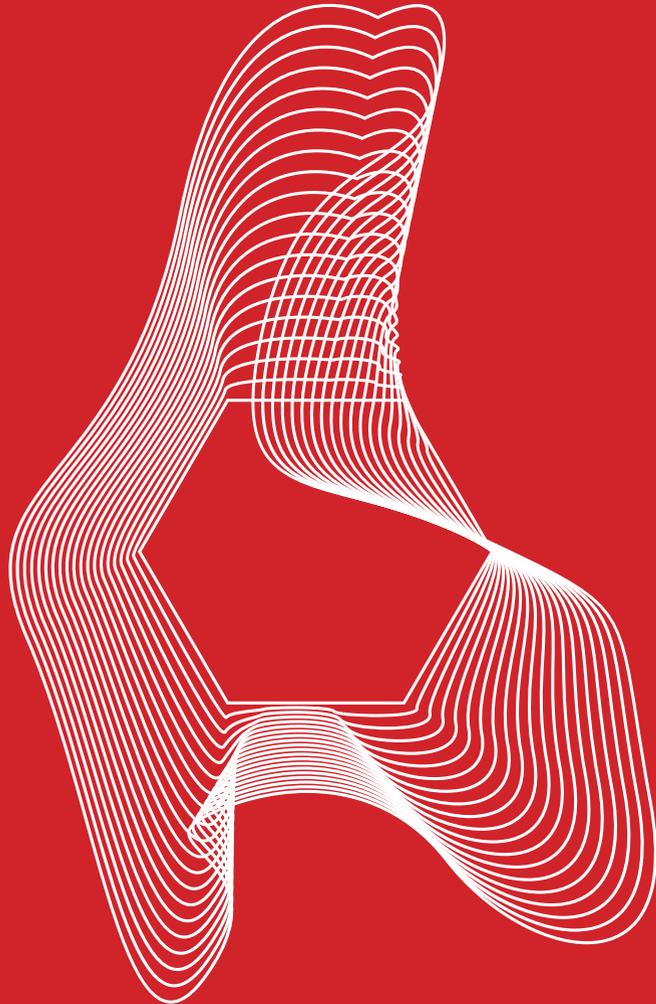
Besides being a new landscape in Denmark, Amager Bakke is also being presented as an important actor in Denmark's goal to be CO2 neutral in 2050. It includes the most efficient and environmentally friendly incineration technologies and air filtration in the world. Emitting smoke rings indicating the emissions of 1 ton of CO2 the power plant "hopes to reconnect the Danes to the issues behind waste management. The architectural concept by the Danish firm BIG will convert the plant into an artificial landscape drawing the people of Copenhagen in" (BIG Vortex, 2012). The architect behind the spectacular building calls his architectural style for 'hedonistic sustainability' - on Amager Bakke you can go skiing in your bikini while 'saving the planet'!

However, while the spectacular pictures of the skiing slope have traveled the world media, they have created heated debates and controversies in Danish media and politics. This paper explores how a power plant is attempting to redesign relations between people and their infrastructures and between infrastructures and natures. How to design more sustainable infrastructures and more sustainable – and possibly more fun - relations to energy?

Making Things/Making Meanings

Chair:
Denise Hagströmer

Venue:
Seminar room 2



Maker Culture as Alternative Design History:
Activist design and convivial politics

Cindy Kohtala, Aalto University,
Eeva Berglund, Independent Scholar

Today's 'maker movement' is an explicitly alternative set of communities and practices devoted to self-sufficiency, which sustainable design proponents have been eager to catalogue. Self-sufficiency here most clearly relates to ensuring access to fabrication technologies and skills, but also – in our research – food, shelter, mobility and a generalized knowledge about a sustainable way to live: an alternative to mass production and commercial design. However, much of maker discourse remains as speculative, unrealized or partly realized visions. Makers meanwhile continue the inchoate, diffuse work of their design activism at the margins, creating futures in makeshift ways. Here, we suggest, lies an alternative history and alternative pathways (Hess, 2007) that institutionalized knowledge producers easily dismiss as inefficient and/or insignificant.

We examine maker-activists' pursuits using empirical, not speculative, tools, to examine and assess their implications for remaking environments. Merely cataloguing examples cannot capture the ambivalent and possibly contradictory implications of makers' going concerns. Our empirical work with projects and communities shows there is much confusion: about what 'more sustainable' entails; what projects should and could be pursued; what constitutes success and the like. But the confusion is shared, it does not hinder the practice, and it forms a crucial part of the experience. The groups' willingness, even need, to experiment hands-on means experiences of 'sustainability' are embodied, and what has been learned is learned in the world, experimentally and experientially. To help spell out this comfort with complexity and a toleration of messiness, we use the notion of "collective imaginings" (Gatens and Lloyd, 1999) to capture the embodied and shared but historically disavowed ingredients of all knowledge production. Such a notion implies a wider and possibly radical culture of mutual learning that echoes the insights of Ivan Illich (1973) on learning.

Maker Spaces and Future Making: Value Creation and Sustainability in China and the UK through the Historical Lens

Paul Denison, Teeside University,
Tony Brown, University of Technology
Sydney

This paper will examine the relationship between value creation, sustainability and the Maker Spaces phenomenon. Its key concern is to generate a critique of Making practice through the deployment of the skillsets associated with historical and curatorial practice. Maker Spaces are often touted as a revolution and challenge to socio-economic issues, design paradigms and much, much more. David Gauntlett (2011) for example, argues for ‘engaged citizenry’ insofar as Making engages people with each other and creates meaningful personal relationships with made environments. The paper considers a range of views including the proposition that nothing much has changed other than the means and scale of production, and consequently the possibility that Makers are creating artefacts whose value is contentious from an historical viewpoint.

There already appears to be a significant difference between Maker Spaces in the West and China. In the West there is a somewhat ideological, experimental and social spirit to the Maker endeavour. (Daniel Charny, 2011). Here the amateur Maker is privileged through access to open source hardware and software. Projects verge on artistic or craft production as opposed to products for the mass market place. At the same time they are projects generated by non-experts, facilitated by experienced technologists and Makers and where value is ascribed through their educational and social dimensions. (Billings, 2015). As such these many of these artefacts possess speculative and discursive value in addition to being useful or functional in the traditional sense. In projects in China where the Chinese government has invested heavily in the Making infrastructure, the direction of Making is more closely related to the processes of pre-production, customisation, prototyping and scaleable production. The imperative would appear (with some exceptions) to be speed-to-market and economic viability. In this guise Making is a vehicle for fiscal rather than social and creative values.

#Sustainable Design – Framing Sustainability in Design Museum Mediation

Sabina Michaëlis,
University of Southern Denmark

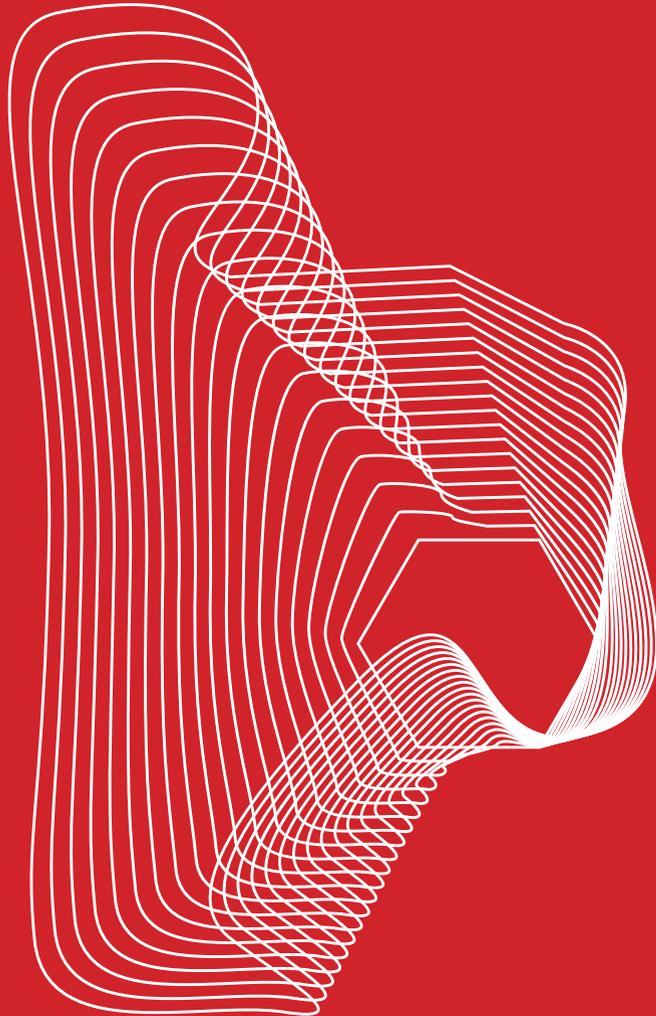
Towards the end of the 20th century, when design museums began to dislodge from museums of fine art, the grand narratives of aesthetic evolution, style and maker biographies lingered for some time. In recent years both new and well-established design museums are de-emphasizing chronology as a master narrative. Abandoning rigorous periodization, both permanent and temporary exhibitions of 20th century design are increasingly structured around conceptual themes or headlines that mirror the indexation of literary introductions to design, such as John Heskett’s (2005) *Design: A Very Short Introduction*. In the exhibitionary complex this turns ‘sustainability’ into one of multiple co-narratives of design, juxtaposed with strands like ‘icons’, ‘identity’, ‘innovation’ etc. – unintentionally connoting that design is either one or the other. The difficulty lies in communicating how these themes interact and sometimes contradict with what we think we know they mean.

Rebecca Houze (2016) points to ‘sustainability’ as one component of the mythology that informs the signage of our visual landscape. While ‘sustainability’-narratives are certainly founded in very real concerns about the environmental impact of production and consumption, the actual impact of these narratives on consumption is perhaps as erratic as myth. Houze (p. 4) suggests that buying into “green” branding is less about the social and environmental potential of products than it is about “the way it makes us feel as consumers”. This self-critical observation suggests that ‘sustainability’-narratives should not be separated from narratives of e.g. ‘identity’ or better yet ‘desire’. This paper presents the preparatory research conducted before appointing an object for the exhibition ‘Beyond Icons’. Negotiating a suitable framework for mediating the complexities of sustainable design the paper considers, through product case studies, how commercial mediation of sustainable design relies heavily on consumer identity and desire.

Designing Nature

Chair:
Rebecca Houze

Venue:
Seminar room 3



Landscaping the Open Plan: The Role of
Plants in American Office Design

Jenifer Kaufmann Buhler,
Purdue University

Office plants were relatively common in American office décor in the post war period, but they achieved a heightened level of use and significance in office design and layout from the late 1960s through the late 1980s, as the open plan office became popular in the United States. This association of the open plan with interior landscaping was at least partially due to the early influence of the Quickborner Team’s “office landscape” concept. In their layouts, the Quickborner Team typically specified plants as an essential element in their office plans, carefully arranging planters throughout the office space to both decorate and delineate the total space. As the open plan became more common, some office plans simply included individual planters scattered throughout the office, but other American architects and designers created more elaborate interior landscaping with lush uses of greenery and even water features. Whether using modest planters or designing a full interior garden, the inclusion of plants in offices required careful planning in the initial design and careful consideration in any office changes to ensure the equitable arrangement of plants throughout the office as well as the survival of the plants (in terms of light and ambient temperature). Drawing on archival research, architecture and design periodicals, and trade literature, this paper will examine the original philosophy behind the use of plants in office interiors in the late 20th century, as well as the aesthetic intentions, the logistical challenges, and the perceived social benefits of these green objects and spaces within late 20th century American offices.

Ecological Humanism and the Design of Corporate Environments

Helena Chance,
Buckinghamshire University

The health and well-being benefits of access to green space, sanctioned by research, are now promoted by a number of organisations, including government agencies; but how can an urban working population's health improve by spending more time in green space when more than one third of their time is spent in, or travelling to the workplace? Since the early Industrial Revolution, one solution has been to provide allotments, walks, gardens or sports grounds within, or close to the workplace to improve employee health, motivation and raise productivity. Scholars have suggested that corporate recreational landscapes became an archetypal solution to the paradoxical relationship between the nature and technology, or 'the machine and the garden' (Mozingo, 2011; Chance, 2017). However, corporate landscapes are mostly elite spaces, inaccessible or closed to their local communities and suburban office campuses or parks, with some exceptions, do not provide attractive social amenities, or ecologically sensitive environments for public access.

In this paper I discuss a new typology of suburban corporate wildscape, exemplified in designer Thomas Heatherwick's and architect Bjarke Ingels' design for the new Google campus in Mountain View, California, which offers an ecological environment where public and private spaces become permeable. Borrowing from landscape theorist Ian Thompson's concept of 'ecological humanism' (Thompson, 2009) I argue that these environments represent a paradigm shift in corporate landscape design, from their primarily didactic social functions of the nineteenth to late twentieth centuries, to a more ecological approach to an environment under threat in the twenty-first century. The corporate landscape, formerly a rhetorical space of power, where nature and culture, work and leisure, freedom and control interweave in complex ways, could become more humane, with productive space for community recreation, and engagement with landscape ecology, to provide a more just and permeable space for nature care-taking and citizenship.

Design with Nature at 48

Neil Korostoff, Penn State University

Ian McHarg, a prominent pioneer of ecological design and planning, published the very influential book *Design with Nature* in 1971 (Natural History Press). The book offered a radically new perspective to those engaged in the design and planning of the environment. Chief among them were an in-depth critique of the values of Western cultural and society and their culpability in environmental degradation and a science-based method to include ecological and social values in order to revolutionize the process of planning and designing the environment. The book alternates chapters of philosophical perspective with those about practical, project-based examples of the application of the ecological planning method. *Design with Nature* questions the most basic presumptions of human/nature relationships in Western civilization and provides a guide to a new approach to designing and living with nature.

Design with Nature has been enormously important: it is one of the core texts of the professions of landscape architecture and regional planning. McHarg's ecological method for landscape planning is accepted as the standard technique for understanding and planning landscapes and regions. However, the book is little known outside of its professional context, and then only to landscape architects. Its influence on allied design professions such as architecture, engineering and city planning are limited. And its impact on the larger culture should be examined today. The Design History Society's Annual Conference "Making and Unmaking the Environment" is an excellent venue to examine the seminal ideas found in *Design with Nature* and critically review their impact on environmental planning and design 48 years following their publication.

DIY Dissent

Chair:
Ingrid Halland

Venue:
Seminar room 4



The Unmaking of Autoprogettazione

Avinash Rajagopal, Metropolis Magazine,
Vera Sacchetti, TEOK Basel

In 1974, Milanese designer Enzo Mari shocked his contemporaries with his *Proposta per un'Autoprogettazione*, a set of rudimentary furniture pieces sold as cheap instruction manuals rather than physical objects. Anyone with a hammer, nails, and timber could build the pieces for themselves. The project commented on the overlooked social responsibilities of the designer and critiqued the passive role imposed on consumers by the 20th-century design industry. In the last decade, amidst social and economical complexity that echoes the context of its original making, *Autoprogettazione* has resurfaced as a touchstone project that adds to the contemporary discourse. From Artek's 2010 re-edition of *Sedia 1* to *Cucula*, a Berlin-based non-profit, producing *Autoprogettazione* for and with refugees in 2015, the many ways in which the project has been quoted, echoed, repurposed or copied have shifted, altered and reinforced its original meaning. This paper traces the making and unmaking of meanings in *Autoprogettazione*, analyzing the context that led to the project's inception and exploring its comeback in the last decade, whether as a platform for art and design exhibitions, a vehicle for do-goodism in times of humanitarian crisis, or as a propaganda tool for companies and their marketing agencies. Scrutinizing these instances, and exposing the shifts and appropriations the project has been subjected to, reveal how the original aim to critique the design industry has been appropriated and made part of the design industry itself, in varied and at times perfidious ways.

Amateur Design: DIY as resistance

Paul Atkinson,
Sheffield Hallam University

For some, the act of DIY design embodies an element of resistance: a rejection of mainstream manufacture that emphasises unsustainable perfection in favour of a more personal, individual and 'authentic' experience of objects imbued with emotion and personal investment as a more intrinsic part of the constructed self. These notions of resistance are most noticeable when the objects produced are closely tied to subcultural groups and associated with differing levels of alternative ways of life. Musicians and motorcyclists might not seem to be closely connected groups, for example, but through interviews with and observation, remarkably similar ideals and attitudes are revealed.

Many musicians reject the perfection of factory-produced instruments as lacking personal meaning, and struggle to justify their expense when the well-known artists many emulate often only had basic, cheap instruments to hand. Others, driven by environmental concerns, worry about the endangered hardwoods associated with high-end instruments, and choose instead to make and perform with cigar box or tin guitars made from repurposed materials. Many bikers display similar disregard for mainstream consumption, but this too takes a number of forms. There is a world of difference between the costly crafting of a custom chopper built mainly for display and a home-built 'rat bike' built to a budget. While both machines require a certain level of technical mastery of the owner, one is a piece of conspicuous display driven by desire, where the other is often driven by financial necessity. Despite the apparent disparities between these objects, there are underlying social and attitudinal elements tying them together— notably a rejection of the passive consumption of mass-production, and a desire for a more meaningful relationship with objects that foster individuality over conformity. In a world where the sustainable future of mainstream manufacturing is being closely questioned, these examples may provide insights into potential ways forward.

DIY and Disorder: NATØ's Approach to Making and Materiality

Claire Jamieson,
University of Hertfordshire

Be not a dummy in an aspic of bought aspiration. Select instead and adapt and resurrect and rearrange so that you may move the way you want. Even if penniless, revel in the available alter-splendour. Exploitation of the landlord, the granny, the friend, excavation of the garage, the tip, the skip and the market, the farmyard even, these will readily furnish your space with the excreta of your own condition. And now use the clever weld, the stupid contrast to make it all that much more peculiar.

– 'Albionize Your Living Room', NATØ, 2, (1984) pp.12–13.

NATØ – Narrative Architecture Today – the last radical architectural group of the twentieth century, who emerged from the Architectural Association at the start of the 1980s, promoted an approach to architecture and the city predicated on DIY and an adhocist approach to making and re-making. In their 'stimulator artefacts', designed for complex spatial installations, NATØ designed through improvisation and material salvage – combining foraged materials like plastics and metals with ready-made elements such as radios and video equipment. Echoing contemporaneous designers including the Creative Salvage group, Daniel Weil, and Ron Arad, this was a generation driven by the decaying fabric of de-industrialising London – the physicality of disorder and entropy suggesting subversive new forms.

Defining NATØ's works as distinctly urban, the paper proposes the idea of a street vernacular that sought to mirror the language of the city – celebrating informality, primitivism and obsolescence. Exploring original archival material and articles from NATØ magazine, the paper considers NATØ's anti-design ethos and their dislike of 'tastefully designed goods' – theorising a strand of postmodernism based on self-determination, self-build and participation. Drawing on theorists including Dick Hebdige, Tim Edensor, Ben Campkin and Richard Sennett, the paper considers how NATØ's work opposed the structuring efficiency of global capitalism and celebrated the diversity of urban life.

Making and Unmaking National Identity: Design ‘In’, ‘Of’ and ‘From’ Ireland (Anniversary Strand)

Chair:
Grace Lees-Maffei

Venue:
Seminar room 5

The position and meaning of the ‘national’ in histories of design has been a recurring site of discussion over the past 30 years. A shift in emphasis to ‘world’ or ‘local’ histories in the past decade seemed to signal the end of the ‘national history’ as a coherent historiographical category; but as recent events in Britain and the United States have shown, we are far from being ‘post-national’.

Much of the historiography of Irish design has been about unearthing, considering and understanding visual and material history in a country where the idea of the nation itself has been continually (and still is) contested. This emphasis on national self-definition has provided a historical focus for Irish design history, with many examples of work analysed for their links with traditional craft sensibilities, as well as a non-paradigmatic experience of modernity. The historical relationship with Great Britain has provided a constant touchstone, in terms of both colonial and post-colonial experience, but these three papers attempt to go beyond this reading by considering design ‘in’, ‘of’ and ‘from’ Ireland, complicating national and international relationships of the late 20th and early 21st century, in order to interrogate some of the limits and possibilities of a “national history of design” as it is being written.

‘Made in Ireland’?: National Narratives and Global Networks in Irish Design History

Sorcha O’Brien, Kingston University

The IQ lamp was designed by Danish designer Holger Strøm while working at the Kilkenny Design Workshops in the 1960s, and has been presented as part of the canon of both Irish and Danish design. This paper uses the lamp as the starting point for a consideration of national identity in design, in a world where designers, clients and products move across nations, unsettling definitions of identity.

The established narrative of Irish modern design has been largely tied to the ‘Scandinavian Report’, an analysis by a group of eminent Scandinavian designers of Irish design and craft published in 1962. This report resulted in the Kilkenny Design Workshops, initially staffed with Northern European designers, working with Irish colleagues and manufacturers, with products promoted as Irish. However, there was already a small, steady, stream of designers and manufacturers coming to the state, including subsidiaries of larger companies such as General Electric and Philips. Couper Works, a Dutch company, set up a factory in Wicklow in 1957 to manufacture washing machines and vacuum cleaners, which were heavily advertised as ‘Irish made’, a label which could easily be elided into the later ‘Guaranteed Irish’ and ‘Buy Irish’ import substitution campaigns.

This paper seeks to consider such movement of designers and manufacturers into Ireland, not as a contribution to a national narrative, but as a way of locating Ireland within greater global networks of exchange in an increasingly globalised, if not homogenised, world. It asks how considering the movement of designers, designs and ideas in a global context could help move Irish design history beyond the colonial and post-colonial, to complicate the definition of ‘an Irish design’ (or a Scandinavian one) as something that could be both ‘global and national’ at once.

Irish Design in Africa: Practices of the Transnational National

Lisa Godson, National College of Art and Design, Dublin

This paper explores the phenomenon of Irish designers who produced work in and for sub-Saharan Africa from c.1950–75, with a particular focus on architects and the later work of the Kilkenny Design Workshops. This work was commissioned and effected through late-colonial, charitable and Catholic missionary networks. With the latter, a hitherto-undocumented oeuvre was created that was far more radical in design than architecture being produced for an Irish setting; projects in Africa drew on the experimental, transnational idiom of ‘tropical modern’.

The central focus of the paper will be on the design drawings prepared in Ireland and dispatched to Africa as the principal material objects that the designers actually made. They evoke an ‘Africanist imaginary’ through the appearance and variety of certain recurring motifs, suggesting particular attitudes to the Irish-African encounter including embedded narratives, images and cultural values.

The nature of the designs will be explored by questioning the nature of European design work in Africa more generally. This is considered in relation to an approach inflected by a modernist approach to the environment. The definition of place in Cartesian terms inspired functionalist tactics involving the use of a formula based on technical data deemed appropriate to the general region of the ‘tropics’. This is indicative of the programmatic focus in the production of design in the global system that emerged from colonial techniques. The establishment of Kilkenny Design Workshops (KDW) in the mid-1960s provided a model for similar initiatives in ‘developing’ countries, and the paper will address how the KDW schema was invoked and transmitted in Africa, asserting a modernizing agenda achievable partly through design. The paper seeks to elucidate parallels between the supposedly totalizing narratives of modernism, development, colonialism and missionary activity as materialised in design, and through discourses around design, modernity and (intern)nationalism.

Putting the “Irish” into Irish Design 1950–2015

Mary Ann Bolger,
Dublin Institute of Technology

It is a cliché of Irish history books that each of the waves of invaders who colonised Ireland over the centuries eventually became “more Irish than the Irish themselves.” In the case of design, there is a degree of truth to this, in that the various projections of Ireland (as tourist destination, as exporter and as industrial base) that prevailed over the last century have largely been the work of either émigré designers from abroad, or of out-sourcing to overseas agencies.

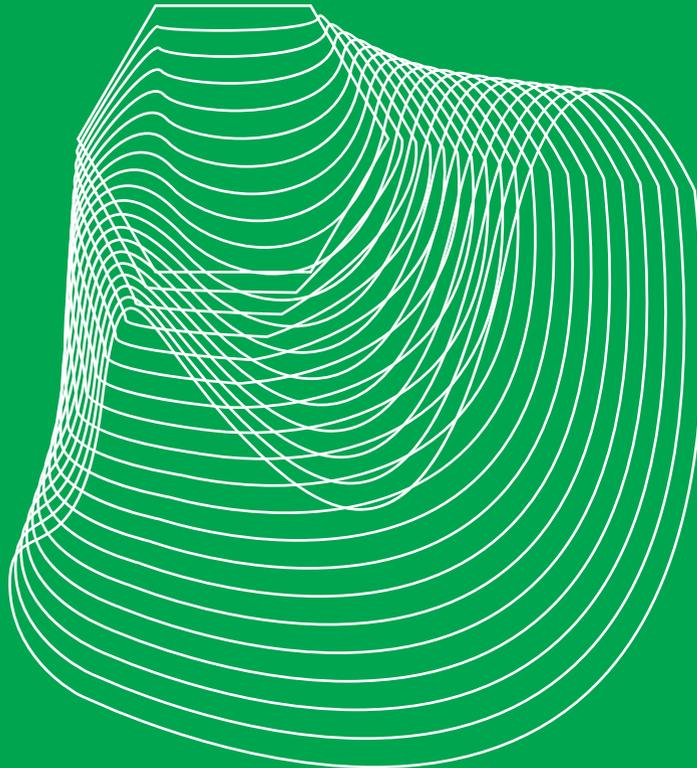
Investigation into the significant contribution by British and American design consultancies and advertising agencies to the Irish export effort from the mid-1950s, for example, reveals not just how (often contradictory) images of the nation were constructed, but how self-consciously performed national identity could be. Such reflexivity in national projection forces us to think about design’s active or performative role. Likewise, the apparently inevitable recurrence of certain historical motifs in contemporary Irish design and craft promotion points to a kind of suspension of disbelief (or criticality) among designers in Ireland.

From the export promotion exercises of the Irish Trade Board in the 1950s which attempted to negotiate tourist-friendly tradition and industry-focused modernity, to the year-long celebration of Irish Design 2015, which presented Ireland as “the design island” using remarkably similar rhetoric – this paper will examine the global influences that inform apparently nationalist design promotion. The broader context of early design promotion in Ireland, as in Britain, was the impending Common Market. In fact, the post-war preoccupation with national design reveals an anxiety about identity in a changing European and global economy that has vivid contemporary parallels, which might be used to interrogate contemporary concerns about national histories of design.

Environment in Education

Chair:
Joan Greer

Venue:
Seminar room 1



Design 12 and Environmental Education at
University of California, 1965 to 1969

Tim Stott, Dublin Institute of Technology

This paper studies the Design 12 course established by British sculptor Simon Nicholson in 1965 at the College of Environmental Design at University of California, Berkeley. The course ran for only two years at Berkeley, discontinued after complaints from members of the faculty. From 1967 to 1969, it was offered at the other UC campuses of Davis, Santa Barbara, and Santa Cruz. Of particular interest is how Design 12 continued, albeit indirectly, the ambitions and techniques of Basic Design but expanded them to provide what Nicholson called an “environmental education” for students of architecture and design.

Listed as a lower division course to provide “Three-dimensional design experience in the use of machine tools,” Design 12 was highly unconventional in its methods. It gave to play and games the primary role of simulating the invention, construction and testing of a building and the assessors of students’ projects were, first and foremost, the children who were invited to play with them on UC campuses and in local schools, parks, playgrounds, and hospitals. Reflecting on Design 12 in November 1969, during a study programme organised by the Park and Recreation Administrators Institute at UC Davis, Nicholson suggested that such environments showed “tremendous scope for research into animal-machine systems, perhaps even plant- animal-machine systems, and their possible role in education.”

Nicholson’s course made a brief but significant contribution to the teaching of Environmental Design at University of California, comparable to that provided by the likes of Horst Rittel and Christopher Alexander. The egalitarian and interdisciplinary ambitions of Design 12 were unprecedented, however, as was its correlation of play with an environmental education. This paper will study the history of the course in order to better consider the relevance of its ludic methods to contemporary environmental design education.

**Sustainability vs. Underdevelopment:
Examining the Teaching of Sustainable
Development in Latin America (1950s-1980s)**

Livia Rezende, Royal College of Art

The mid-twentieth century was marked by the growth of modern design practice and education globally. This growth, however, evolved at various rates and encountered diverse dilemmas in different regions. While in Europe and the United States a booming industry and consumerist society fuelled modern design expansion, in Latin America and India the very condition of economic and social underdevelopment ushered in modern design as a tool for progress. In both regions, national plans for infrastructural improvement, industrial development and import substitution were implemented in the post-war period to counter economic and technological dependency to 'centres' of material production. In Latin America, this effort included the opening of more than 30 design schools and courses between the 1950s and early 1980s, and the adoption of a modern design language to promote state-run industries.

How these efforts for regional development and economic autonomy equate with incipient but long lasting concerns about sustainable development that spawned in the same period? Focusing on this question, my paper unearths how and why some Latin American design and architecture schools approached contemporary environmental and sustainability debates through their curricula and pedagogical activities. My paper will discuss how the problem of development – economic vs. sustainable – has been multifariously addressed in the region, from state-sponsored schools that promoted uncritical widespread industrialization and design-led raw materials extraction to those establishments that promoted the incorporation of and engagement with Latin America's culture and nature in equal measures in their curricula.

**Agent Makers - The Un-Masking of
Environmental Agency through Design for
Speculative Social Innovation**

Melanie Levick-Parkin, Eve Stirling,
Maria Hanson, Roger Bateman,
Sheffield Hallam University

Living in the Anthropocene, with its accelerating human agency impacting on the planet, we have to open our eyes to the ever increasing signs that the relationship between design(ers) and nature is more often than not disastrous. And although designers hold a great deal of power to influence our relationship with our environment, it is questionable whether young designers feel like they themselves have any of this power or are aware that their training equips them with agency beyond the artifactual context.

This research explores whether and how speculative, future oriented design briefs can make design students aware of their agency in social and environmental contexts beyond the micro-environment of their immediate design discipline or disciplinary industrial context. The collaborative student project 'Design Futuring the City' was asked to imagine futures for their home cities, developed from a wide range of futurologist predictions. Part of the students exploration was to give consideration whether their visions of this future were utopian or dystopian and to develop an understanding of how design 'futures' and 'defutures' (Fry 2015) at the same time.

Fry (2015) proposes that the true potential of design education, - 'of disclosing world making and un-making' (ibid p.19) remains unrealized and as such, western education is insufficient. Although this critique is about the lack of design education in a broader sense, we would also propose that even within art & design education, traditional ontological entrapments mean that it can be difficult to transcend designs temporal pre-occupation with futuring the immediate, with neither a sense of a deeper past nor deeper future. We believe Design pedagogy, whether within or outside the art school, has a pivotal role to play in the making and un-making of design histories beyond dominant ontologies and a duty to contribute to more resilient social and environmental futures.

Mould, Milk, Chrome, Corn:
Natural and Super-natural Materials

Chair:
Zoë Hendon

Venue:
Seminar room 2

This panel focuses on materials of design, substances of which artefacts/things are made. By taking a historical approach to the development and qualification of different materials we explore how materials have responded to and influenced concepts that are critical to design: plastic and biotic materials in relation to conceptions of nature, stainless steel and its resistance to natural processes such as corrosion.

Changing Views of Nature through a (His)tory
of Bioplastics

Damla Tonuk, Gaziantep University

This paper explores the development and valuation of materials of design with respect to changing conceptualisations and valuations of nature and sustainability. I specifically focus on a group of plastics categorised as bioplastics that are biobased or biodegradable, or both; i.e. they either come from nature, plant sources etc. or go back to nature by decomposing into compost that can be digested by microorganisms. By taking a historical approach to design and production of plastics, I start with a cultural history of plastics dating back to 1920s and focus on conceptualisations of nature and manifestation of these ideas on plastics and their qualities in different time periods. Then I compare these ideas with current conceptualisations of nature and sustainability and their manifestation in bioplastics and their qualities. I show how plastics and their valuation responded to changing understandings about nature and the ways in which materials are sustainable. Also, through my account of the recent history of bioplastics, by exploring the development and production of bioplastics, pointing to complex interrelations with various stakeholders, I discuss in which ways materials are natural and/or cultural. I resolve this duality in favour of a cultural living environment. This discussion will enable me to conceptualise environment and nature as co-constitutive with design.

Stainless Steel: A Super-Natural Material in a Throw-Away Society

Nic Maffei,
Norwich University of the Arts

Focusing on stainless steel in the postwar consumerist America, this paper responds to the conference themes of durability and ephemerality while exploring the metaphor of nature in promotional and trade writing. Additionally it argues that the way a material is initially conceptualized shapes the future practice of design. The paper uses archival steel industry sources from Hagley Library, Delaware, including The American Iron and Steel Institute archive. How has the language used upon its arrival (e.g. newspaper, industry / trade press, consumer press, marketing, etc.) and throughout its development helped to shape design concepts regarding the material? Because of its origin in materials found in the earth – chromium, nickel and iron – stainless steel is natural in origin. However, the steel industry perceived and promoted stainless steel as a ‘modern’ and even ‘magical’ material, emphasizing its resistance to ageing, especially rusting, and broadcasting its shininess. The attention given to its ‘gleam’ arguably has given it an aura of magic, associating stainless steel with the twinkle of fairy dust, the sparkle of spells, the supernatural qualities of mirrors found in fairy tales and fantasy. It was in the interest of the steel industry to promote bright modern materials at a time when the public considered steel to be heavy, rusty and dark. However, these connotations, while solidifying some metaphorical meanings of stainless steel, also limited others related to its other properties, including its strength, heat tolerance, hygienic qualities and permanence / sustainability. This paper provides an opportunity to discuss a single material and suggest its place within a unique category of super natural materials that stand outside of nature.

Artificial and Biotic – Growing Materials

Tom Fisher, Nottingham Trent University

This paper is inspired by recent experimental attempts to harness synthetic biology and design to produce materials from the activity of microorganisms – fungus, bacteria and algae – ‘biotic’ materials. It considers these new materials in the context of a more familiar history of ‘artificial’ materials that also starts with a set of materials of natural origin: horn, shellac, gutta percha, cellulose and casein. Accounts of these contemporary experimental materials promote them as a response to the environmental problems that accompany oil based plastics emphasising their position in a biological order that can both make and un-make matter. They draw on the themes of harmony, beneficence, balance and renewal that accompany ideas of nature, drawing an implicit (and occasionally explicit) contrast between these materials and the more familiar synthetics, the durability of which threatens to overwhelm us, drowning us in a plastic soup.

Building from an overview of the natural origins of early plastics, the paper will use as a case study the marketing of casein plastics. These were widely used in small goods and buttons through the first half of the twentieth century and were promoted for their modernity, with little reference made to their origins in milk protein. It is precisely their natural origins that seem to make biotic materials attractive, though their actual environmental benefits or effects are not clear give their early stage of development. Consequently, their benefits are symbolic rather than actual. Despite the significance of their natural origins for their contemporary resonance, the emerging literature on biotic plastics exhibits a paradoxical lack of respect for nature in rather violent language - nature is ‘hacked’ by bio engineers; it is forced to cooperate in a new phase of technical mastery, un-critically promoted.

Italy: Toward an Ecological Sensitiveness (1950s-1970s)

Chair:
Grace Lees-Maffei

Venue:
Seminar room 3

The origins of the ecological sensitiveness in Italy go back to the 1950s merging different cultural, ideological, technical and artistic approaches. The panel explores the relationships between sustainability, art and design in a historical perspective aiming to answer to multiple questions: is there an “Italian way” to environmental sustainability? Which is the role of Italian cultural heritage in defining a whole idea of environment? Which were the weight of the different approaches (technical, political, philosophical, artistic) in shaping the contemporary challenges?

Modelling the Future: Aurelio Peccei and the Club of Rome

Pier Paolo Peruccio,
Politecnico di Torino

The paper clarifies the role played, mainly in the sixties, by some Italian “futurists” (i.e. Aurelio Peccei and Pietro Ferraro) in describing future scenarios by the use of humanistic approaches and mathematical models. The “need for rationality” (Christopher Alexander, 1964) of the design process seems to have many philosophical elements in common with operational research and other scientific approaches for predicting the future. Most of them are directed by groups considered by the sociologist Robert Boguslaw (and quoted by Tomas Maldonado in “La speranza Progettuale”, 1970), as the new utopians, in other words neopositivist “social engineers” who believe the key to design lies in mathematical models and numbers (Robert Boguslaw, 1965). Nevertheless the Italian approach to future studies was culturally close to the French one represented by Gaston Berger, the father of the school of foresight, and Bertrand de Jouvenal, author of the landmark book *L'art de la conjecture* (De Jouvenal, 1964). In 1968 the Italian industrialist Peccei founded the Club of Rome, an informal and non-political association created by a group of international scientists, business leaders, intellectuals, and politicians with an ambitious goal: to launch an urgent debate on “the predicament of mankind”. Their contribution was to further a better understanding of the problems of modern society as a whole. The main outcome of their work was the publication, in 1972, of the “Limits to Growth” report considered still today a milestone study in the history of environmentalism.

The Image of Sustainability: Associations and Visual Communication

Elena Dellapiana, Politecnico di Torino

Since the beginning of the Fifties, intellectuals and politicians started a debate on sustainability as members of associations, whose goals were contaminated and improved by some overseas spurs. In that period, the world of ecological associations grew up to protect the natural and anthropic environment facing the increasing sensitiveness of the general public and the political authorities. The result was the elaboration of some theories coming out from specialized and technical fields for the communication of the ecological message to a larger number of people using the most innovative graphic design and visual communication systems, in relationship with commercial and politic movements as the worldwide anti-nuclear groups. In 1970 another association, “Pubblicità Progresso” (“Progress Advertising”), was born to create a network between the professionals with the challenge to communicate these fights. Advertising campaigns communicated by all media and directed to specific publics (i.e. primary schools, neighbourhood communities) were promoted and financed by trade associations and government agencies. It gave a strong boost to social communication and triggered a debate on the use of ethical graphic.

Landscape as Labor Force: Agriculture between Myth and Counterculture in Italian Artistic Practices

Francesca Comisso,
a.titolo Curatorial Collective

The paper investigates some artistic experiences in Italy in order to highlight the peculiarity of a relationship with the natural environment that draws from material and agricultural culture. It anticipates some contemporary environmental issues and new post-industrial economies. To give an example, in 1957 the artist Pinot Gallizio develops the “industrial painting” in the Experimental Laboratory of the Situationist International in Alba (Piedmont). It is a painting produced on rolls of up to seventy meters, intended as a détournement of painting that, in the situationist perspective, is able to inflate the economic value through the quantity. In the same year Gallizio designs “an experimental station for medicinal and aromatic plants”: an agriculture aesthetization project through cultures rich and stimulating to the senses, seen as an alternative to a massive industrialization.

Between 1973 and 1981 the conceptual artist Gianfranco Baruchello creates, on the outskirts of Rome, the Agricola Cornelia S.p.A., a project which investigates the relationship among art, agriculture, animal husbandry and the market valuation processes and culture. A “way to respond to the Land Art” (Baruchello 1983), the artist says, to tell an artistic experience and life that is among “Spiral Jetty” by Robert Smithson and “Splitting”, by Gordon Matta-Clark with whom he shares Baruchello’s similar strategies to subtract territory from speculation. Furthermore the research of some Arte Povera artists helps to foster the collective gestures and signs of the rural world as part of a new alphabet for redesigning man and society.

Repair, Textiles, and Contemporary Design

Chair:
Pat Kirkham

Venue:
Seminar room 4

In 2013 the Domaine de Boisbuchet, a site of innovative design workshops in southwestern France, mounted the exhibition “Boro: The Fabric of Life.” In this evocative display, heavily mended and patched Japanese workwear received a then-rare moment in the spotlight as an offering and stimulus for Boisbuchet’s design-conscious audience of makers and thinkers: a lesson in the beauty of aged garments nurtured and revealed by daily use, attention, and preservation. Fast forward to 2016, and a large variety of repair-oriented textile works have been presented at art and design fairs around the world. Elsewhere on the design front we find many instances of the theme and aesthetics of repair, as expressed specifically using the language of textiles, arising as leitmotifs—or, to take it one step further, as calls to action—in contemporary art and design culture. A humble act born of necessity has become an expression of resistance to our unmaking of the environment.

In this panel of three papers—from the diverse perspectives of a university art museum curator, artist and professor of art and design, and interior architecture graduate student—we will initiate a deep investigation into the lessons that worldwide practices of mending offer designers today. The presentations will reflect on various objects and efforts that have brought the material act of mending to the forefront of creative dialogues on the design campus; explore the conceptual and creative potential unleashed by the physical act of mending; and analyze the ways that the lexicon of homegrown patched and repaired textiles can be applied to the urban landscape. Focus will move from historic objects, the maker’s hand, and the care taken in the creation and life extension of singular, meaningfully crafted functional objects to overarching concerns of environmental repair evident in contemporary design projects and proposals.

Creatively Defying Brokenness: Lessons from Repaired Textiles

Kate Irvin,
Rhode Island School of Design

Material examples of mended and patched garments and textiles—well-used, well-loved, and well-maintained objects—have inspired contemporary designers across many fields and continue to speak to the current generation of design students. In my experience as a curator at an encyclopedic museum connected to an art and design university, such objects inspire students to not only find meaning and beauty in the ravages of time but also they underscore the care and attention that guided them into the present and into our collective vision. Made to work and to last, these objects show darns that animate them, reveal their labored history, and bind them to us with memory and emotion. They remind us that everything we wear and use is in the process of becoming and is imbued with a living history that, if given the chance, will continue well beyond our time.

Though the medium traditionally has been overlooked as a site of critical engagement within academic discourse, repaired, patched, and darned textiles have the potential to engage and connect us in crucial ways. The Latin root of the word “textile,” *texere*, means to join or intertwine, while the Old French root of *mend*, *amender*, signifies putting right, regaining health. In contemporary design arenas, the concept and practice of repair functions at the intersection of these definitions, as an invitation to a renewed form of social exchange and an alternative, holistic way of facing environmental and social breakdown. Repair is an ethical and ecological commitment: a rejection of mass production and limitless consumption; a validation of undervalued and repressed labor; a reimagined relationship to quality and connectivity. It is also an embodied act, a way of entering into and understanding objects as material and practice. And it functions as a renewed form of social exchange.

Filling the Void

Lisa Z. Morgan,
Rhode Island School of Design

When I was growing up, all the women in my house were using needles. I've always had a fascination with the needle, the magic power of the needle. The needle is used to repair damage. It's a claim to forgiveness. It is never aggressive.

—Louise Bourgeois

This paper will consider acts of repair at close range: the darning of holes, in particular the ruptures created by unwelcome pests such as moths or those caused by constant wear, by the repeated rubbing of a toe or heel against the fabric of a favored sock. The mending and re-working of such holes requires focused attention. The unwanted hole exposes. And the act of filling it has the potential to become highly subversive, a space of agency and intervention. How to fill the void is open to interpretation, and the materials chosen articulate a distinct persona. Whatever the process used, an amorphous, expanding vocabulary unfurls as one works to repair a hole, with each thread, method, and rhythm creating new meaning and insight.

It may well be far easier to throw a broken, ripped, or worn through garment away; to scrap what remains and start afresh, rebuilding and redefining. To repair, on the other hand, requires an acknowledgment and celebration of what has been, a reflection of what has gone before, a bringing together and uniting of what remains. Teaching with and considering these worn-through holes and their repair presents a method of how we might address our futures as social beings. It prompts us to celebrate what no longer works and to find a new way forward while acknowledging and taking heed of the solid structures and ways of being that continue to wear well for us and our society.

Superkilen Repairs

Nakeia Medcalf,
Rhode Island School of Design

Exploring the parallels of insertion within the contexts of architectural adaptive reuse and textiles speaks to the language of repair. By creating a wedge of graphics within the city landscape, Superkilen in Copenhagen, Denmark, repairs the city through public works. As a project designed for a homogenous city, Superkilen highlights the existing culture, language, and ethnicities not often associated with the country. The result is a practice of adaptive reuse which uses graphic color, texture, and wayfinding to describe the area.

In this paper I will discuss how Superkilen aims to dissect the complexities of repair through an urban habitat. As we often presume built environments consist of physical walls and framing, I will argue that within such urban parks as Superkilen lies the same interiority as a physical structure. The idea of public works being woven into the infrastructure of a city will be addressed. Mending the city through reparative tactics goes beyond fixing society. It is the innate reaction to our immediate surroundings. By creating an urban park with an emphasis on community, ethics and economy, the park embodies the action of repair.

Like a goretex or an ornamental section of cloth, Superkilen weaves and inserts color and culture into a once dull district. This insertion provides new structure and volume to the neighborhood by embracing the existing. Each surrounding building comprises a wall or solid form that personifies the wedge created by the graphics. The end result is a fine representation of repair strategy in public works from the lens of the ethnic and economically diverse population. It is through public works used in the context of repair that urban communities will have a greater impact on the fabric of the city.

Socialist Sustainability

Chair:
Fedja Vukic

Venue:
Seminar room 5



Environmental Design Pedagogy in Leningrad
in the 1980s

Yulia Karpova, Aarhus university

Throughout the 1970s, Soviet designers were increasingly speaking of ‘environment’ (sreda) as a complex and heterogeneous surrounding, including built and natural elements, historical and newly designed areas. During 1980s, this ‘environmental approach’ was increasingly inciting ecological awareness. In cooperation with environmentalists, philosophers, historians and other specialists, industrial designers sought for specific methods of environmentally affirmative design. They called for reconsidering design pedagogy accordingly: no adding “environmental design” as an extra discipline to design departments, but orienting the whole curriculum towards solving environmental issues.

This paper highlights tensions and contradictions of late Soviet design environmentalism by considering the case of design workshop, run by Vladimir Kirpichev at Mukhina School of Art and Industry in Leningrad from 1978, and the department of environmental design into which it was reorganized in 1990. Following the Mukhina School’s tradition of educational workshops with flexible curricula and charismatic instructors, Kirpichev developed a specific vision of environmental design pedagogy that combined the idea of “collective genius,” the emphasis on handicraft, as well as concepts inspired by systems theory. I will argue that Kirpichev approach was essentially humanist, techno-optimist and oriented at satisfying consumer needs rather than solving environmental problems. Further, I will demonstrate how this stance was challenged by the changing socio-political circumstances and broader international contacts in the early 1990s. In particular, I will consider Kirpichev team’s participation in the international seminar Interdesign, organized by the Industrial Design Society of America with the support of the U.S. Environmental Protection Agency, and held in San Jose, California, in August 1992. At this event, young Leningrad designers demonstrated the tendency to decenter the consumer in their picture of environmental design, and, arguable, took a step towards post-humanist vision of design.

Environmental Sustainability in GDR Industrial Design Practice

Katharina Pfützner, National College of
Art and Design, Dublin

This paper will examine the work of industrial designers in the socialist German Democratic Republic. A highly industrialised country, the GDR was not without its environmental problems. Yet - or perhaps rather because of this - environmentalism was something of a taboo subject, and environmental concerns were only rarely explicitly acknowledged in published GDR design discourse. Nevertheless, this paper will argue, the particular ideological, social and economic conditions that emerged in this country had led its community of designers to adopt a profoundly socially responsible design approach that consistently sought to curb consumption and preserve natural resources, thereby minimising man's impact on the environment. The effect of this shared design approach on the GDR's material culture was limited, however, which has contributed to it being overlooked in design historical scholarship to date and to GDR design culture itself being under-read, misunderstood and, at times, misrepresented.

Drawing on a wide variety of sources, including contemporary published texts, diverse types of archived documents and interviews with GDR designers recorded in the years since the country's demise, this paper will reconstruct their shared aims and ideals. It will also consider some of the specific practical ideas and resulting designed objects to emerge from this approach, as well as discuss the main obstacles GDR designers encountered in various areas of the socialist economy, which tended to undermine the realisation of these ideas in mass production. This paper's focus on the ideas and practices of GDR industrial designers allows it to not only draw attention to some of the hitherto unacknowledged intellectual and practical richness of GDR design culture, but also highlight an aspect that could provide pertinent insights for contemporary design practitioners, theorists and educators - particularly those with an interest in environmentally sustainable design.

A Quiet Conversation Among Things: Decay, Cultural Ecology and Memory at the End of History

Tom Cubbin, University of Gothenburg

From 1965 until 1992, groups of artists and designers met twice a year to undertake 90-day long projects an artists' retreat by Senezh lake, 70km outside of Moscow. The Central and Educational Studio of the USSR Union of Artists, or Senezh Studio, had been established as a site for the experimentation of artistic methods in design and to develop artistic strategies that would resist the homogenization and commodification of daily life. In the new context of perestroika, designers were faced with a dual instability: the ever-changing rearticulation of the past, combined with an uncertain future. At this time, the group refused to engage in politics, and instead began to explore the poetic qualities of objects.

In this paper, I will discuss a project undertaken in 1990 after a group of designers at the studio discovered an abandoned home. Nobody knew why it had been abandoned, or why the family who had inhabited the home left so many things behind. After some deliberation, the artists decided to remove the furniture, possessions and photographs from the house and created a series of installations that explored the colliding temporalities of people and matter, and the relationships between objects that carry meaning. Whereas the group had formerly proposed that object memory could form a resistance to official Soviet history, this project highlighted the fragility of the matter upon which we rely to construct memory. In this paper, I will contextualise this project within the intellectual history of perestroika, with particular reference Dmitry Likhachev's concepts of 'cultural ecology' and the presence of the past in the last years of the USSR.

To Endure or Not to Endure

Chair:
Jane Pavitt

Venue:
Seminar room 1



Something Old, Something New: Ambiguous Durability in the Context of Modernism

Peder Valle,
The National Museum, Oslo

This paper examines the uneasy relation between the aspect of durability and a modernist design rhetoric. Framed by the efforts of the design reform movement of the Nordic countries in the early 20th century, the paper addresses a small, but important paradox in the evangelist rhetoric of modernism: Durability does not limit itself to 'good design'. In their attempt to design good homes for people of modest means, architects and designers were seemingly obsessed with starting from scratch – ignoring that people often did not. The simple dwellings outlined in modernist writings and projects allow for nothing old, odd or used to be brought into these homes. It materialized a break with the past, signalling for people to leave the old world behind.

However, a lot suggests they did not. Quoting sources from literature, popular media, museum collections and historical research, I argue that people inherited, re-used, repaired, repainted and, in short, treated their environment in a markedly different way than the modernists imagined. At the core of this is durability: Despite being labelled "degenerate", many antimodern objects endured; they remained in use. The modernists, though, saw durability as a hallmark of good design. Whilst criticising the consumer's thirst for novelty (and the perceived moral deficiency of the cunning shopkeeper), the modernist advisors seem oblivious to the fact that they, too, are trying to persuade the consumer to purchase new things – things that, necessarily, will replace functional, durable things. This double-edged sword of durability raises important questions about the modernist design rhetoric, and its impact.

The paper calls attention to historical conceptions of sustainability in an age prior to environmentalist consumption critiques. Using the Nordic countries as a lens allows for particular viewpoints on modernism as a potent and political vehicle for social reform and design reform.

**Environment in the Museum:
The ARARAT-exhibition in Stockholm 1976**

Christina Pech,
Royal Institute of Technology

The ARARAT exhibition at Moderna museet in Stockholm 1976 was one of the most ambitious exhibition undertakings ever put on show in Sweden. Its aims were far-reaching; the title did not only host the biblical connotations of survival but was spelled out as Alternative Research in Architecture, Resources, Art and Technology.

This paper is a historiographical account, departing from the circumstance that the environment does not commonly form part of the history of Swedish twentieth century architecture. In this perspective ARARAT's stock-taking of environmental approaches offers a rich interface to the discourse in the mid-1970s. For example, ARARAT addressed architecture as the most comprehensive of concepts, encompassing everything from the smallest building blocks of biology to the vastest urban constructs. In its ambition to perform a full analysis of the interaction between natural resources with society and culture it resonated design theorists such as Buckminster Fuller as well as the "Only One Earth" motto of the first UN conference on the human environment held in Stockholm in 1972. ARARAT also provided a window to American counterculture, an often overlooked component in the history of Swedish post-war architecture. The exhibition's on-site three-dimensional configuration of the concept of the Whole Earth Catalog is especially striking. Complete with seminars, workshops and information centre it wished to disseminate knowledge through access to tools (a concept central to the WEC). Moreover, ARARAT challenges the conception of Swedish modern architecture as an altogether rational affair. The participatory, non-authoritative method and alternative 'look' might forebode a post-modern paradigmatic shift from futurism to historicism but the clearly utopian impetus of ARARAT also reveals a modern manifestation. The exhibition contested thus not only the idea of modernization as technological progress but also the factual design of modernity.

**Air Conditions: A Discussion on
Architectural Aerodynamics**

Ingrid Halland, University of Oslo

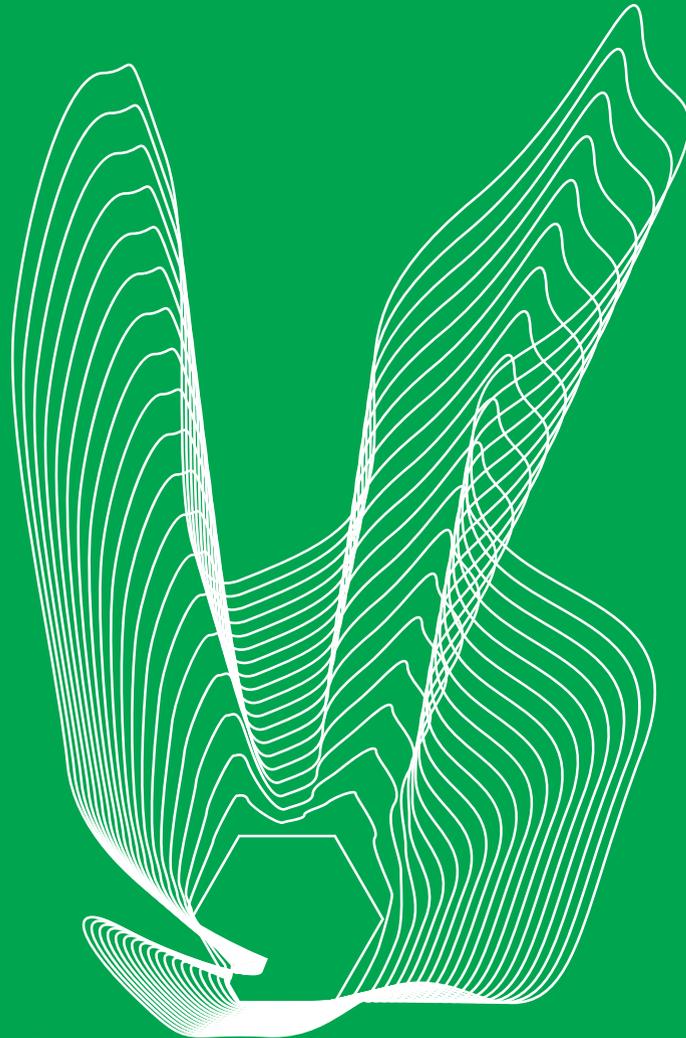
In his magnum opus, the Sphere trilogy, philosopher Peter Sloterdijk identifies three essential events, or criteria, that could sum up what the 20th century has offered to the history of civilization. The first concept is made explicit through air; the second concept is located in product design; and the third concept is revealed through the environmental idea. Sloterdijk claims "Dasein ist Design" and that being in the 20th century especially makes itself explicit within air conditioned design: "Air design is the technological answer to the belatedly recorded phenomenological insight that human being-in-the-world is always and without exception a modification of being-in-the-air."

This paper will address the experimental research article "Air-Curtain Walls and Roofs—"Dynamic' Structures" from 1971 by Canadian architect Peter Goering and scientist Bernard Etkin. The article was a part of the special issue A discussion on Architectural Aerodynamics of the journal Philosophical Transactions of the Royal Society of London. In the article, Goering and Etkin published results from their technical research and scientific experiments on the future possibilities of air architecture. Their experiments resulted in the theoretical possibility of creating a structureless structure, an enclosed habitat of air streams. This structure would eliminate the static use of material entirely and expand only energy to provide a barrier against the environment. Their experiments showed that by altering the density and velocity of the air stream, even rainfall and snowstorms would be prevented from entering the enclave. The researchers envisioned that an algorithm could allow the enclosed air space to be responsive to the outer environment, the air would self-regulate the inner environment according to the outdoor conditions, and hence nature itself would design the immediate dynamic structure. The air in Goering and Etkin's dynamic structures conditions a space of being where object and environment becomes the same.

Drilling & Dwelling

Chair:
Finn Arne Jørgensen

Venue:
Seminar room 2



Nikel Materiality

Katya Larina, Tatjana Gorbachewskaja,
Independent scholars

Our research explores the phenomenon of the remote industrial mining settlement Nikel through the lens of unique material substances, textures and artefacts that have emerged there.

The research particularly discovering new properties of the coppernickel dust, primarily the industrial processing product and building material of the city, but later the agency of destruction of the city and new element of local ecology.

Nickel as a city was constructed within conditions which are unsuitable for living, it was built as an artificial organism covered by a top-down virtual “protecting dome” of vital infrastructure. Thereby Nickel as a city became a great sample of gradient alienation of the form from the natural climatic environment it has been placed in. The story of the material itself reveals the story of the city where the natural environment was turned to a new realm that is not anymore dependent on its geographical, geological or ecological context.

Through the catalogue of artefacts we present the Arctic city of Nikel as a “material system”, a unique local assembly of interactions of matter and energies driven by nature, industry and social activity. We trace how different substances emerged here manifest themselves both on: the micro scale of material properties and macro scale of social-economic processes.

By exploring the ‘materiality’ of the settlement which undergone through flourishing and crisis we reveal an emergent symbiosis of nature and alienated substances appeared within an enclosed city, by this we are aiming to discover the processes of co-design driven by the local autonomy of the city and the forces of the natural environment alike.

The Hazard of Paradise: Making Place and Image in the Shadow of Oil

Polyanna Rhee, Columbia University

On January 28, 1969 an offshore oil platform near Santa Barbara, California ruptured and oil began seeping into the Pacific Ocean. Following the blowout, images of the disaster from attempts to absorb oil on the ocean surface to oil-soaked birds circulated in national and international outlets provoking outrage and activism. In Santa Barbara, the center-right residents formed Get Oil Out! demanding the end of oil drilling in the vicinity to prevent the city from becoming “Oil Town, USA.”

But Platform A was only one of twelve oil platforms along a fifty-mile stretch of coast. Since the early twentieth century oil constituted a vital part of the region’s economy and a direct, though obscured, contributor to Santa Barbara’s development. Much of the city’s appeal came from what the novelist Ross Macdonald described as its “tradition of living at respectful ease with nature.” With its picturesque setting between mountains and ocean, Spanish Revival architecture, and lack of all but “smokeless industry” the city’s leaders worked assiduously to reinforce an image of the place as a climatic and aesthetic haven.

Historians have highlighted the ways that images from oil spills helped shape narratives of environmental awareness. In this case Santa Barbara’s residents confronted the ways their city’s public image helped conceal social, economic, and environmental relationships with oil—until a disaster put those relationships into relief destabilizing that sense of place. This paper builds upon this work by focusing on the interplay between the design of Santa Barbara’s urban fabric, touted as a place in complete harmony with nature, and the oil extraction on its coast, raising questions about the making and unmaking of natural and designed environments and how perceptions about environmental heritage and suitability are formed.

Making and Unmaking a Frontier Territory

Andrew Morrison and
Janike Kampevold Larsen, Oslo School
of Architecture and Design

Longyearbyen, the main town in Svalbard, presents historical, contemporary and projected relations between environment and design. First sighted by the Dutch Barentsz in 1596, this pristine, seemingly sublime landscape has a history of the arrival and application of technologies with destructive impact on its delicate arctic ecology. Early visitors came to hunt, fish and cull whales, followed by industrial resource extraction through the mining of coal. Mines left clear markers on the landscape, including headgear and buildings (e.g. Taubansentralen), dark smudges and screeds of residue by hollowing out millennially aged carbon. Svalbard’s presence as a geo-political territory grew after WWI with mining maintained together with natural environmental protection. As carbon fuels fell out of favour, since the 1990s Longyearbyen has emerged as a site for the application of experience design tourism, expansion of science education and research into climatic and biological systems. Longyearbyen is one of the world’s largest sites of gathering low orbiting satellite data and techno-designs include a variety of scientific climate measurement. Longyearbyen is not merely a new datascape triangulated from above but informational and environmental mapping occurs in and about the the historical landscape in what we call an Anthropocene-scape. We unpack these ‘territorial’ relations through applying the section from landscape design and studies to a vertical section of the town that reveal timescapes and relations from geological to informational planes, features and intersections. Our analysis is informed by cultural history, landscape and interaction design and technology critiques, digital media and futures studies, supported by a four year research project Future North. Manifestations of the Anthropocene need to be understood in historical context through hindsight but also through design foresight. This is to address how destructive legacies might be repaired through anticipatory acts for more resilient futures, stretching Hiyug de Bellasca’s notions of care to ‘territorial care’.

**Design, International Organisations and Environmental
Discourse: Mapping Concerns, 1970s-1990s**

Chair:
Pat Kirkham

Venue:
Seminar room 3

At a time when climate change is commonly regarded as a global challenge, environmental awareness has been put forward in the agenda of international organisations, design organisations included. As fierce advocates of design's contribution towards the enhancement of global sustainability, not only have the latter developed design standards grappling with pressing environmental needs; but these have also sought alliances with international organisations to enhance such objectives. This panel aims at mapping out and elucidating how designers have attempted to place design within global environmental policies, both through their professional organisations and through their cooperation with international organisations. As such, its two first papers will examine the extent to which environmental concerns shaped the agenda of the International Council of Societies of Industrial Design (ICSID) and the International Council of Graphic Design Associations (ICOGRADA) between 1960 and the 1990s. Conversely, a third paper will contribute to the discussion by examining the development of low-tech solutions to natural disasters by British designers in collaboration with Oxfam in the late 1960s-1970s, as such appraising how the design profession was perceived by and acted through a non-design organisation. Our case studies are guided by the following questions: When and to what extent did the design profession attempt, or neglect, to treat this concern internationally? How were the environment and the designers' contribution to it envisioned within international forums, and what can it reveal about the profession's position towards these issues between 1960 and the 1990s? By presenting three case studies that shed light on the entanglement between concerns for the design profession, as posited by design organisations and collaborations with wider global concerns through NGOs, the panel aims at mapping environmental discourse on international design platforms, as such contributing to environmental histories of design.

**The Graphic Design Profession and the
Environment: An Icograda Case Study**

Dora Souza Dias, University of Brighton

This paper aims to assess the International Council of Graphic Design Associations' almost non-existent position towards environmental concerns in order to contribute to broader discussions on sustainability in graphic design histories. Icograda was founded in 1963, same year the manifesto *First things First* was written. Published by Ken Garland in 1964 and signed by graphic designers, photographers and students, the manifesto proposed "a reversal of priorities in favour of the more useful and more lasting forms of communication" instead of "high pitched scream consumer selling" adverts. Both, the Council and the manifesto, revealed growing concerns about the paths of graphic design as a profession, as well as its ethical position. In the first International Congress held by Icograda in Zürich 1964, Prince Philip, Duke of Edinburgh, highlighted the increasing responsibility of design towards the environment. However, the concerns of the Council were mainly delimited to the man-made environment as it directly affected professional practice. It was not until 1993 the term 'environment' appeared in one of Icograda's General Assemblies as a matter related to the profession, possibly in response to the Rio'92 Earth Summit held the year before. Thus, the aim of this paper is to contribute to the discussion on the history of the graphic design profession and its relation to environmental causes, exploring the Council's distance to the subject as well as the relationship between graphic designers and environmental causes.

ICSID and Environmental Discourse, 1969-1980

Tania Messell, University of Brighton

The International Council of Societies of Industrial Design (ICSID) was founded by designers from Europe and the United States in 1957 to raise the professional status of designers and establish international standards for the profession. By the late 1960s the organisation set out to promote a human-centred approach through a wide programme of philanthropic initiatives, often initiated in close association with United Nations agencies and international NGOs, and through the establishment of Working Groups such as ‘Design for Handicapped’ and ‘Disaster Relief’. However, at a time when environmental concerns acted as a cornerstone of international relations and environmental discourse spread within the design profession, the topic remained peripheral to ICSID’s activities between 1969 and 1980. As this paper posits, this ambivalence resulted from the council’s close ties with industry, and from its members’ prevailing understanding of design as an ally of increased industrial output and economic growth, a tension which culminated at ICSID’s tenth congress, held in Dublin in 1977. Whilst the event aimed at reviewing the profession’s capacity to alleviate pollution and the harmful impact of technology, it witnessed conflicting understandings of design’s association with industry, whilst a manifesto, shared by a group of designers, rejected the profession’s grappling with environmental issues and ICSID’s claims of possessing “a recipe for solving world-problems” (General Assembly minutes, 1977). Examining the extent to which environmental issues shaped ICSID’s activities between 1969 and 1980, and performing a close reading of ICSID’s 1977 congress, this paper investigates the causes of ICSID’s difficulty to align its members’ main interests with its environmental discourse, and its impact on the organisations’ activities in the studied period.

Shaping the Landscape of Natural Relief: The Case of Oxfam

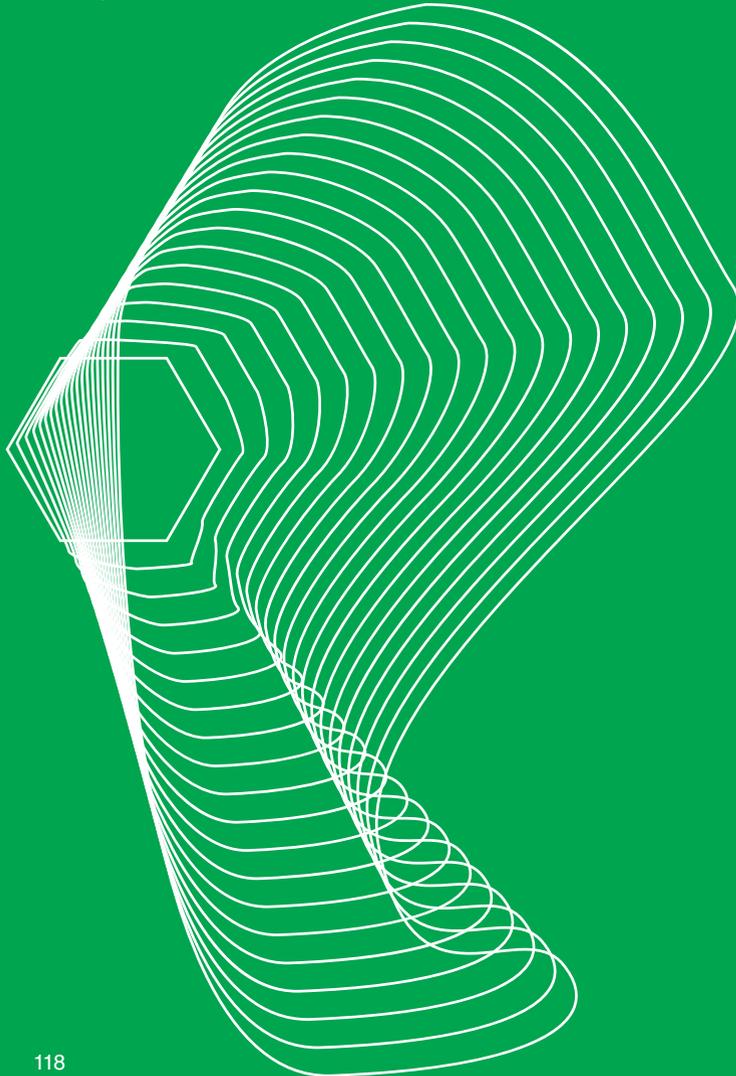
Lilian Sanchez-Moreno,
University of Brighton

The design profession has largely been held responsible for much of the world’s social and environmental crisis. As a response, the late 1960’s witnessed the emergence of alternative modes of design, along with a liaison between the design profession and non-governmental organisations (NGOs), which sought to collaboratively address such crisis. Scholarship in design history and design studies has sought to address the broader impact of such alliances; which have arguably been intertwined with the inclusion of social responsibility within the design profession (“social design”), while simultaneously, questioned the role that the design profession played as a form of political and economical dominance over the so-called “developing countries”. Thus, by focusing on the material and visual culture that emerged from the relationship between the design community and Oxfam during the period of the late 1960s-1970s in Britain; this paper seeks to address the built environment in response to “natural relief”. In doing so, it seeks to historically appraise projects such as the “Emergency Housing” project, presented at the Design for Need exhibition in 1976, with the aims to: contribute to the history of the alliance between Oxfam and the design community from the late 1960s to present; to draw attention to the largely neglected genre of objects that emerged from the need to alleviate natural disasters; map out diverse notions of the environment by untangling the multiplicity of discourses embedded in the design of such objects; and finally, to assess the broader environmental and social impact of corresponding interventions.

The Aesthetics of Sustainability

Chair:
Ben Highmore

Venue:
Seminar room 4



Sustainable Technologies, Aesthetics and Diffusion; a Historical Perspective

Wouter Eggink, University of Twente

This paper reflects on the diffusion of sustainable technologies in comparison with other successful technologies from a design history perspective.

Historic case studies of three successful technologies (the automobile, the television, and the personal computer) revealed that there is a strong correlation between the appearance of the technology and the aesthetics of the dominant design movements. During the diffusion period of new technologies the conformity of these technologies to the looks of the prevailing design movements of these diffusion periods increases. In other words; in the same time that these technologies became successful, they looked more and more like 'normal things'.

Two historic case studies of sustainable technologies acknowledge this mechanism; the development of solar powered watches in the 1970ies and eighties, and –more recent– the development of electric cars. Although earlier work showed that the designs of sustainable technologies are lagging behind some ten years in comparison with mainstream design, the investigated sustainable technologies showed the same development in their appearance; a convergence towards more 'normal' designs.

In conclusion we can say that designing sustainable technology like mainstream technology has helped the diffusion of these technologies maybe more than giving them a specific 'green' appearance.

The Aesthetics of Sustainable Design

Mads Nygaard Folkmann, University of Southern Denmark, Vibeke Riisberg, Design School Kolding

This paper will investigate the aesthetics of sustainable design by exploring different strategies of communicating products as being sustainable. It can be questioned how the sustainable element is present and detectable in design: Whether it is a principle of internal construction, operates as a strategy of emotional commitment and subsequent prolonged use through employing symbolic elements or is detectable through 'external' signs designating e.g. "eco design" through a specific colour palette.

"Aesthetic coding" will be employed as a central concept to describe the relationship between outer physical manifestation and inner idea of the object in the question of how the specific meaning content can be physically manifested and reflected in a variety of ways. In this way, the expression and appearance of sustainability in design may be contested along with the notions of sustainability behind the design. On this basis, the paper will methodologically pose a double question: Which types of aesthetic coding are in play, and how do they relate to historical notions (and visions) of sustainability in design? In so doing, the paper will propose both a typology of aesthetic strategies in sustainable design and connect it to its historical development.

Aesthetic strategies investigated are: 1) direct representation of the idea where the sustainable element of the design can be detected on the object surface in colour or material, which can be seen in the "nature aesthetics" and tendency to jute instead of plastic in the 1970s and 1980s, 2) indirect representation and critical-constructive reflection of sustainability as a principle of the design as in newer explorations of materials, 3) avant-gardist explorations of the potential of sustainability and 4) the evocation of emotional attachment through elements which are not directly related to sustainability.

Art and Social Design Objects as Blurred Communicators

Toke Riis Ebbesen, University of Southern Denmark

Some of the most conspicuous art artefacts today are, it seems, close to being "design," and what is commonly referred to as design artefacts certainly are often seen to be artful in many respects. Perhaps the most important thing is that both art and design can also seem to be alluringly close to life itself, especially in the domain of social design. Although most people tend to speak of these types of artefacts as art, they are also posited as everyday objects, destined to be parts of the material cultures of which they partake. Of special interest, a class of objects seems to work to cross this border in a very conscious manner. These, what we may designate art and design "hybrids", are especially hard to decode because of the hidden complexities of their object. This paper will attempt to understand these tensions of art and social design in relation to anthropological and semiotic concepts of agency, intentionality and indication. It does this by examining the ideas of Alfred Gell's anthropology of art and culture as a background for suggesting an indicative framework as analytical tool, derived from Argentinian semiotician Juan Pablo Bonta and danish design historian Jørn Guldberg.

The toy-like solar lamp Little Sun, designed and marketed by Olafur Eliasson and Frederik Ottesen, is used as case for indicative framework analysis that blends the registers of sustainable or durable social design and art, and as an example of how designers attempt to determine meaning potentials through sustainable design in a complex interplay of different strategies. In the final analysis, what characterise objects like Little Sun is seldom that they communicate their meanings in themselves, but instead rely on deliberate blurring of designed meanings and thus relies heavily on forceful mediations to gain their interpretative effects. The paper will end with a discussion of the implications of this type of social and environmental design, as it seems to repeat a Western tradition of patronizing romanticism regarding the development of non-Western societies.

Design in the Age of Environmentalism

Chair:
Gabriele Oropallo

Venue:
Seminar room 5



The Promise of the Alternative:
The Development of Sustainable Design in
Germany's 1970s

Martina Fineder,
Academy of Fine Arts Vienna

This paper examines the promises of a green alternative future as they developed during the 1970s in Germany in the areas of conflict between counterculture and the mainstream, design and anti-design, and consumer society and its critique. The meaning and importance of design and consumption practices in the dissemination and advancement of cultural criticism, that the new social movements expressed, are highlighted and exposed, using material and visual cultural analysis by means of qualitative interviews, and the examination of objects, images and text. The focal point of the investigation concerns new, alternative product styles and product scenarios whose major concern was to connect an ethical and sensuous lifestyle with production and consumption forms that were considered socially and ecologically acceptable. This wish was expressed with the slogan “We Want Things Different”. By scrutinizing how the manufacture and consumption of things were negotiated during this era, the how and the why concerning alternative cultural values surrounding nature and human creative inventiveness are revealed. Thus, the paradigm shift in the human-nature relationship and societal changes from the collective class struggle of the student movement to the lifestyle oriented protest concepts of the green alternative sector of West German society in this decade are demonstrated and clarified.

Examples used in this paper include products conceived by alternative design initiatives such as Des-In or Rotes Haus (Red House), product advertisements in alternative city magazines such as plärer (Bowler), Pflasterstrand (Concrete Beach) and Wir wollen's anders (We Want Things Different), design exhibitions and publications launched by the International Design Centre (West) Berlin as well as lifestyle magazines such as Schöner Wohnen (Better Living).

Representations of the Global Crisis by Italian Design Cultures

Elena Formia, University of Bologna

In the early 1970s Italy, like other European countries, was characterized by a great success of initiatives based on the need for a political and ideological interpretation of environmental issues and for their integration in a radical reform of social and economic processes. How did design cultures contribute to develop a visual communication of the crisis of that period?

A possible answer is provided by an event occurred in Rimini in September 1970. The Art Directors Club of Milano, the Italian association of graphic designers then directed by Giancarlo Iliprandi (1926-2016), prepared the exhibition *Aggressività e violenza dell'uomo nei confronti dell'ambiente* [Man's aggression and violence toward the environment], with black and white posters representing major conflicts and incongruities within Italian society: violence toward nature and historical heritage; the impact of industry and noise pollution; the risks posed by cars, drugs, war and civil conflicts; and the need for freedom and democracy. The exhibition was part of the First International Biennial of Global Design Methodology 'The forms of human environment' organized by the Pio Manzù International Research Centre, a non-governmental research organization established in 1969.

The paper investigates the implications and impacts of this exhibition. After a brief description of the cultural background, the essay 1) presents the event by framing it within the progressive critique of capitalist society, commodification and consumerist behaviours shared by design cultures and environmental movement; 2) comments the exhibition's visual syntax, comparing it to other international experiences; 3) introduces graphic design's engagement with environmental issues and the convergence between the language of professional graphic design and the discourse of Radical groups (in particular Iliprandi).

How to Play the Environment Game

Juliana Kei, Royal College of Art

This paper examines a 1973 architectural exhibition, *How to Play the Environment Game*, held at London's Hayward Gallery. The exhibition aimed to evaluate the Modernist doctrines that had dominated the post-war architectural and planning discourses, and offered a topical response towards the social, political and physical changes that were undergoing in the Western world.

This paper contextualizes *How to Play the Environment Game* with the transformations in British architecture and design culture of the time. Designed by Archigram's Ron Herron, the exhibition introduced the works of architectural visionaries, such as Archizoom and Paolo Soleri, into the South Bank's institutional spaces. Yet the exhibition also expressed a strong preservationist stance, fueled by nostalgic sentiments towards Victorian Terraces, the High Street, and by-law planning. Through examining the imbued paradox of the exhibition, this paper reveals the politics behind the production of environmental discourses in 1970s Britain.

Beyond its significance in design and architectural historiography, particular attention will be paid to the exhibition's use of print, film and interactive mediums. Regarding the media realm as another human-made environment the curator, architect Theo Crosby, expanded environmental discussions beyond the natural and the built ones. He argued that the burgeoning media technology would liberate architectural and planning discourses from the grips of professionals. The exhibition urged the publics to take control of the media, thus to reclaim their rights' to the natural and built environment. This paper revisits these still relevant and provocative environmental questions from the exhibition.

