Department Of Landscape Architecture.



Is academic research useful?

Here at the Department of Landscape Architecture at The University of Sheffield we are enthusiastic about the interplay between research, practice and teaching. Exchanging ideas within landscape architecture and across its various boundaries is, we believe, necessary for an effective, vigorous and forward-looking profession.

While most of our research has a clear, practical application, as academics we also value (and are keen to share) the importance of ideas: understanding our history, philosophy, ethical and political values.

All too often the work of an academic department is hidden or difficult to find and so we have created this booklet to provide better access to our research. We've given priority to outputs that might be most useful to landscape architects working in practice.

We have selected a mix of reports, toolkits, books and academic papers. Most of these can be downloaded free of charge, while the books can be purchased via online bookshops. If you find a member of staff's work of particular interest, you'll find a full list of their research publications on their staff webpages at www.sheffield.ac.uk/landscape.

We hope you find this useful and do get in touch. We believe that the hallmark of an established and confident profession is in the quality and exchange of ideas and we look forward to receiving your feedback about how we can develop our conversation with landscape architects in practice.

Dr. Clare Rishbeth

One Rishbot

Director of External Relations

Department of Landscape Architecture

University of Sheffield, UK.

February 2019

Contents

Landscape design // natural burial // eco system services // military cemeteries design //	ANDY CLAYDEN	4
Wild urban spaces // biodiversity // health and wellbeing // air pollution // Latin America //	ANNA JORGENSEN	5
Migration and place // cities for diverse populations // cultural associations with nature // refugees // participatory methods //	CLARE RISHBETH	6
Landscape planning // visualisation // modelling // landscape perception // public participation and communication //	ECKART LANGE	7
Children's outdoor environments // play value // play in high density cities and crisis situations //	HELEN WOOLLEY	8
Ecological planting // meadow-grassland design and management // climate change adaptation // nature-inspired design //	JAMES HITCHMOUGH	9
Urban streets // indoor-outdoor interface // visual engagement // outdoor eye-tracking // visualisation //	JAMES SIMPSON	10
Landscape history // practice of landscape design // conservation // historic planting detail //	JAN WOUDSTRA	11
Algorithmic design // emergent and self-organizing systems // designing for indeterminacy and risk // vernacular landscapes //	JOSEPH CLAGHORN	12
Experiential landscape // socially restorative urbanism // socio-spatial urban design //	KEVIN THWAITES	13
Long-term landscape design, planning and managment // policy implementation into practice // decision-making //	NICOLA DEMPSEY	14
Planting design // green roofs // water-sensitive design // urban meadows // climate-adapted landscape // landscape ecology //	NIGEL DUNNETT	15
GIS // spatial analysis // land use // classification // statistics //	PAUL BRINDLEY	16
Plants and ecosystem Services // green walls and roofs // changing climate // gardens and health //	ROSS CAMERON	17
On-going funded research projects		18
Recent PhD theses		20

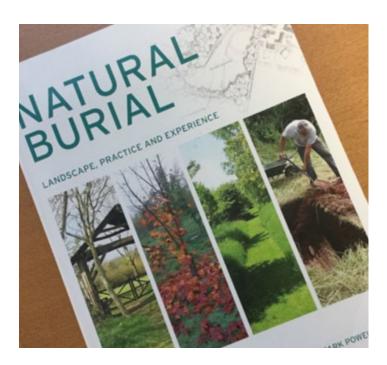
Andy Clayden

Landscape design // natural burial // eco system services // military cemeteries design //

Cutting the lawn – natural burial and its contribution to the delivery of ecosystem services in urban cemeteries

Where can natural burial approaches have the best environmental impact? While dedicated rural burial grounds (where existing habitats are protected and/ or agricultural fields are converted to woodland and species rich meadows) are a positive step, this paper argues that it is in adapting new management approaches to established urban cemeteries that the greatest benefits can be seen. Though often working with relatively small areas, it is possible to introduce new and diverse habitats and reduce mowing, creating a fundamentally different cemetery aesthetic.

<u>+ Free download: Open Access academic paper</u> eprints.whiterose.ac.uk/120248/



Natural Burial: Landscape, Practice and Experience – Routledge

This illustrated book explores the ideas and motivations that have shaped the development of natural burial in the UK since its conception at Carlisle cemetery in 1993 by Ken West. It provides a detailed analysis through site visits, drawings, interviews with owners, managers and bereaved people, and includes a longitudinal study of a single burial ground. The book unravels the many different interpretations of natural burial and how these highly dynamic landscapes continue to evolve.

Gardening in a Changing Climate: RHS report 2017

This illustrated and freely accessible report considers the impact of climate change on the domestic garden in the UK. In particular it explores how warmer and more turbulent weather conditions will shape how we design and manage these spaces. These ideas were used to design and build a demonstration garden at RHS Chatsworth 2017 that included flexible and robust structures that could withstand storms, harvest rain water and adapt to sudden changes in the weather.

+ Free download: report www.rhs.org.uk/science/gardening-in-achanging-world/climate-change

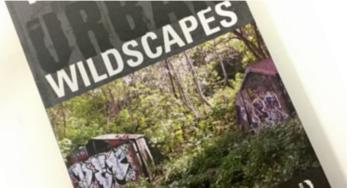
Currently working on...

The research on natural burial is ongoing and continues through the longitudinal study and recording of a single burial ground, now in its 10th year. I hope to understand better how visitors respond to these highly dynamic settings where the grave will be absorbed into the woodland. More recently my research has focused on the design of military cemeteries from WW2. This research focuses on the ideas and circumstances that originaly shaped these cemeteries, how they have evolved and how we experience them today.



Anna Jorgensen

Wild urban spaces // biodiversity // health and wellbeing // air pollution // Latin America //



Urban Wildscapes

Does urban renewal lead to the loss of valued wild places that connect us with history and nature, or can we make changes whilst retaining some of these essential qualities? This is one of the first collections of writing about urban wild spaces seen from a landscape perspective. exploring their characteristics, uses and contemporary relevance. Rather than just being purely descriptive or theoretical this illustrated book provides case studies and practical guidance on how to intervene in urban wildscapes without destroying their unique qualities and functions.

+ Edited book: Paperback & ebook www.routledge.com/Urban-Wildscapes-1st-Edition/Jorgensen-Keenan/p/ book/9780415581066

"Not in their front yard" The opportunities and challenges of introducing perennial urban meadows: A local authority stakeholder perspective

Are urban meadows a substitute for mown amenity grassland? This paper reports on local authority green space manager's experiences of introducing biodiverse perennial meadows into amenity green spaces in two urban areas in the south of England. The paper explores the challenges and opportunities under three thematic headings: aesthetics and public reaction, locational context, and human resources and economic sustainability. Our paper concludes that changes in management

practice such as the introduction of perennial meadows have significant political, strategic, economic and practical implications and cannot be viewed purely as a technical challenge.

+ Free download: Open Access academic paper www.sciencedirect.com/science/article/pii/ S1618866716305489?via%3Dihu

Greenspace spatial characteristics and human health in an urban environment: an epidemiological study using landscape metrics in Sheffield, UK Urban green space boosts health and wellbeing, but can we plan our towns and cities to maximise these benefits? Our study was one of the first to compare the complex characteristics of urban green space with human health. Our findings suggest that planning urban areas to include greater water cover and diversity of tree planting and less amenity grassland in large greenspace patches that are well interspersed with the built environment is likely to support the health of the people who live in those areas.

+ Open access academic paper. (In publication)

Currently working on...

I am currently leading IWUN -Improving Wellbeing through Urban Naturea large study that explores the relationship between nature, health and wellbeing, using Sheffield as a case study. I am supervising a number of PhDs projects that explore the potential for local interventions that improve health and urban livability e.g. green fences to mitigate air pollution in school playgrounds. She is developing research networks in Latin America where she wishes to continue to develop her health and wellbeing research agenda. + www.iwun.uk



a.jorgensen@sheffield.ac.uk



@jorgensen_anna

Clare Rishbeth

Migration and place // cities for diverse populations // cultural associations with nature // refugees // participatory methods //

#refugeeswelcome in parks: a resource book

This booklet provides an overview of the findings from our research with refugees and environmental and refugee support organisations in the UK and Germany. It gives practical guidelines about how to support access to urban parks with refugees and asylum seekers.

<u>+ Free download: booklet</u> www.refugeeswelcomeinparks.com



This paper argues that often urban designers need to give more attention to the social complexity of urban communities and to intentionally design and manage places for shared positive experiences across difference. It provides a literature review of ethnographic studies within UK neighbourhoods with ethnically diverse populations, and highlights four key principles for urban designers.

+ Free download: Open Access academic paper www.tandfonline.com/doi/abs/10.1080/1354983 9.2017.1385000

Benches for everyone: solitude in public, sociability for free

This illustrated and accessible report centres on the experiences of people using benches in a square and a park in suburban London, unpicking the potential of benches as a civic resource for integration and wellbeing. It presents 'The Manifesto for the Good Bench' and priorities for urban design practice with the aim of contesting an 'anti-social behaviour' viewpoint commonly framed around bench use.

+ Website

the-bench-project.weebly.com/research



Currently working on...

We are nearing the end of the three-year Improving Wellbeing through Urban Nature research project. As a member of the 'culture and values' team, I am analysing our findings about how first generation migrants of various ages connect (or not) with parks and other forms of nature in their adopted city, and more broadly working on policy recommendations for addressing barriers and improving access to all kinds of local nature.

+ Keep up to date with these findings www.iwun.uk



c.rishbeth@sheffield.ac.uk



@clarerishbeth

Eckart Lange

Landscape planning // visualisation // modelling // landscape perception // public participation and communication //

Assessing the effects of quarry treatment options on the attractiveness of reclaimed limestone quarries using 3D-visualizations

This study investigates the effect of different limestone quarry reclamation treatment options on people's perception of these quarries. Ten different combinations of treatment methods and after-care for reclaiming quarries are simulated from which fifty still images are captured along a transect at five different distances. The attractiveness and different landscape characteristics are rated by seventy students with different academic backgrounds. The methodology and overall findings would be applicable to landscape quality assessment and reclamation in other settings.

+ Academic paper. In Press International Journal of Mining, Reclamation and Environment, Legwaila, Lange & Cripps 2019

From 3D Landscape Visualization to Environmental Simulation: The Contribution of Sound to the Perception of Virtual Environments

To date preparers and presenters of 3D visualizations have primarily focused on visual aspects of landscapes, in part based on the dominance of the human visual system (Lange & Bishop, 2005). However, individuals demonstrate a complex multisensory appreciation for landscape and it is important to find ways to integrate this with an evaluation of outdoor environments. The research aims to foreground multisensory landscape experience in the design, planning and evaluation of landscape by analysing the impact of sound on the perception of 3D visualizations.

<u>+ Free download: Open Access academic paper</u> dx.doi.org/10.1016/j.landurbplan.2015.12.017

Mobile Augmented Reality for Flood Visualisation

Mobile Augmented Reality for environment, planning, and design has hardly been touched upon, yet mobile smart devices are now capable of complex, interactive, and immersive real time visualisations. We present a real time immersive prototype app for on site content authoring and flood visualization in which we combine available technologies. Networked access to live sensor readings provides rich real time annotations. The flexibility of the app permits a broad range of applications in planning, design and environmental management.

+ Free download: Open Access academic paper doi.org/10.1016/j.envsoft.2018.05.012



Currently working on...

I am currently working on a joint research project with TU Delft and South China University of Technology titled Adaptive Urban Transformation. Focusing on the extreme urbanisation dynamics in the Pearl River Delta in China we investigate planning and management options for more resilient urban environments.



Helen Woolley

Children's outdoor environments // play value // play in high density cities and crisis situations //

Stories of Living with Nature 2014

How do you improve play value and biodiversity in greenspaces connected to social housing? This easy to read and illustrated document tells the story of a three year project working with Sheffield Housing Services and Sheffield and Rotherham Wildlife Trust. The team implemented on-site projects in collaboration with residents in 24 social housing communities and evaluated the results.

<u>+ Free download: report</u> www.sheffield.ac.uk/polopoly_fs/1.516000!/file/ living-with-nature-online-2014.pdf

Assessing links between play value and design of play spaces 2013

This academic paper uses literature from landscape architecture, psychology and education to develop a tool for designers to assess the play value of an outdoor play space. It shows that a more natural approach has a greater play value than a Kit, Fence, Carpet approach. The tool can also be used to suggest how to improve these spaces. To find out about using the tool please email Helen.

+ Free download: academic paper eprints.whiterose.ac.uk/94590/

Space, People Interventions, Time: A model for understanding children's outdoor play in post-disaster contexts based on a case study from the triple disaster area of Tohoku in north-east Japan 2015

In the post disaster area of north east Japan after the massive earthquake, tsunami and failure of the Fukushima nuclear power plant, we found that childrens' landscapes were lost, found, reclaimed, temporary, absent and made new. The existence, or not, of such spaces was the result of People

(such as play workers), Interventions (such as new adventure playgrounds and play buses) and the Time children had or did not have for play.

<u>+ Free download: academic paper</u> eprints.whiterose.ac.uk/94589/



Currently working on...

I am currently leading the Sheffield team of the <u>Playing the Archive project</u> funded by the EPSRC, one of the UK research councils. The project draws upon the Opie Archive of children's play in the 1950s-80s: some of the archive is being catalogued and will become available on a website; some of the team are doing research with schools in Sheffield and London to learn about children's contemporary play; aspects of the archive will be expressed through digital and virtual media, and some will be represented in outdoor spaces in the two cities. I am also working with others to develop research proposals about memories of adventure playgrounds, skateboarding and (refugee) children's access to play in crisis situations.



James Hitchmough

Ecological planting // meadow-grassland design and management // climate change adaptation // nature-inspired design //

"Sowing Beauty"

This book provides a detailed review of the theory and practice involved in making and managing successful meadow like urban vegetation, based on twenty plus years of academic research and practice. It includes 10 case studies of actual projects in practice.

+ Hardcover Book

www.timberpress.com/books/sowing_beauty/hitchmough/9781604696325

Attractive, climate-adapted and sustainable? Public perception of non-native planting in the designed urban landscape

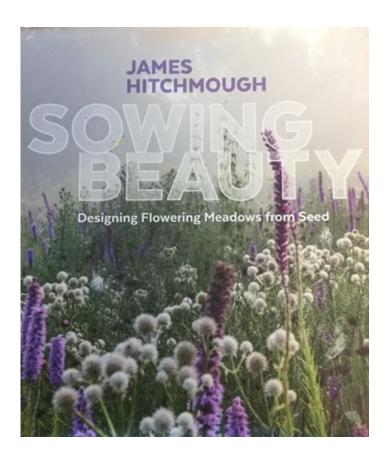
This paper provides evidence for broad public support for the use of non-native species in urban designed landscapes and how narratives that seek to demonise such plants on the basis of their origin sit very uncomfortably with the climate change epoch we are currently living through.

+ Free download: Open Access academic paper www.sciencedirect.com/science/article/pii/ S0169204617300683

All about the 'wow factor'? The relationships between aesthetics, restorative effect and perceived biodiversity in designed urban planting

This paper looks at the importance of flowering displays in designed urban plantings as a means of providing stimulus for landscape users and how this relates to more background provision of greenery as a form of stress alleviation.

+ Free download: Open Access academic paper www.sciencedirect.com/science/article/pii/ S0169204617300701



Currently working on...

I have a number of pieces of PhD research in train; including a PhD project (Harry Watkins) into evaluating Japanese Magnolia species for use in urban cultural woodlands, the first paper due to be published late 2019. Another PhD project (Mingyu Jiang) is assessing the impact of grass competition on persistence and flowering of forb species in urban meadows. Two upcoming pieces of funded research in China involve native species selection for sustainable urban drainage systems, and a seed collecting study in Chengdu to allow the reconstruction of a near lost ecosystem, the Sichuan Evergreen oak forest.



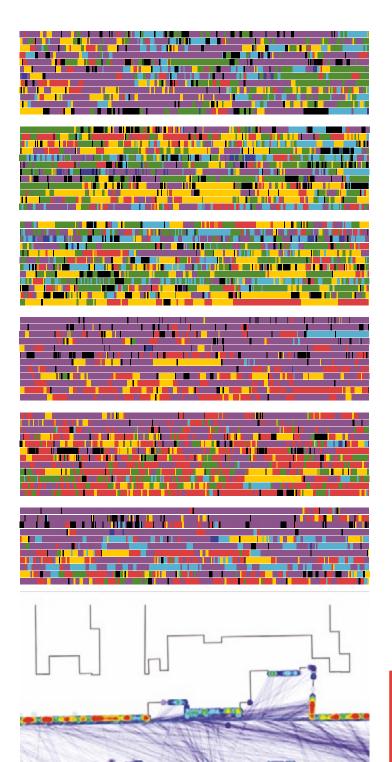
j.d.hitchmough@sheffield.ac.uk



@jameshitchmough

James Simpson

Urban streets // indoor-outdoor interface // visual engagement // outdoor eye-tracking // visualisation //



Visual engagement with urban street edges

This paper presents findings from onsite empirical research using mobile eye tracking technology in order to understand in greater detail where pedestrians are actually looking when they walk along city centre streets. It highlights the relevance of the material build environment in directing the view of pedestrians, and quantifies how their eye movements are directed by a combination of both spatial and social factors.

+ Free download: Open Access academic paper www.tandfonline.com/doi/full/10.1080/17549175 .2018.1552884

Visualising the who, where and what of visual experience

This paper explores how graphic representations, in the form of 'Street DNA', can be produced and interpreted to gain insight into how visual experience of urban streets is structured. It analyses data with regard to 'who we are', 'where we are' and 'what we are doing'. This leads to questions about how landscape architects have responsibility for shaping spatial form and material qualities while also giving due consideration of the complexity of social actions and actors.

+ Academic paper: Contact author for more info

Currently working on...

I have very recently passed my PHD viva so my current priorities are to write from the thesis so that the findings can be shared more widely, with the overall ambition of making urban streetscapes more engaging.



j.c.simpson@sheffield.ac.uk



@JMS SMP

Jan Woudstra

Landscape history // practice of landscape design // conservation // historic planting detail //

Dealing with the consequences of climate change in historic parks and gardens in the United Kingdom

Guardianship of historic landscapes needs to engage with the impact of climate adaptation. This paper sets out some of the different agendas and approaches of taken by conservation organisations. However, these are often acted on in a piecemeal fashion. I argue that collaborative ideas and action are desperately needed.

+ Open access publication, forthcoming. Reinhard F. Hüttl, Karen David, Bernd Uwe Schneider (ed.), Historische Gärten und Klimawandel (Berlin: Berlin-Brandenburgische Akademie der Wissenschaften, 2019)

Landscape Gardening and the Metropolis

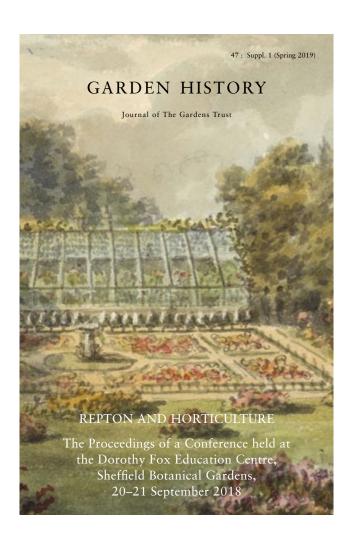
This paper investigates the history of St James park in London and puts it in the context of the urban transformation of London at the turn of the nineteenth century. It includes a discussion of the differing contributions between Nash and Repton, adjusting historical inaccuracies in the attribution of credit. This analysis feeds into a longer research project on the history and development of the London park system.

<u>+ Free Download: Paper</u> http://thegardenstrust.org/wp-content/ uploads/2019/02/47-07 Woudstra.pdf

A History of Groves

The book argues that groves are an often overlooked landscape feature and need to be more critically investigated and more widely used within landscape architecture practice. The book presents case studies of the range of uses and meanings of groves historically and in contemporary practice.

<u>+ Book: Hardback and Ebook</u> www.routledge.com/A-History-of-Groves/ Woudstra-Roth/p/book/9781138674806



Currently working on...

I am awaiting delivery of my most recent book "Capability Brown: Royal gardener and the business of place making in northern Europe". I am currently writing a monograph of Robert Marnock, the most successful landscape gardener of the nineteenth century, which gives his background, shows his manner or working and discusses some of his most significant projects.

Joseph Claghorn

Algorithmic design // emergent and self-organizing systems // designing for indeterminacy and risk // vernacular landscapes //

Generative Landscapes Blog

I started the blog 'Generative Landscapes' as a series of Rhino and Grasshopper tutorials for landscape architecture students in an Introduction to algorithmic design course, and expanded it to include more complex algorithmic examples from there. It has proven quite popular around the world, with over 800,000 page views from 150,000 unique visitors, and after a hiatus to write my thesis, I will soon start posting new content.

+ Blog

generativelandscapes.wordpress.com

Algorithmic Landscapes: Computational Methods for the Mediation of Form, Information, and Performance in Landscape Architecture

My doctoral thesis provides an in-depth study of algorithmic design in the context of landscape architecture, beginning with a theoretical and historical exposition of what algorithmic design is. The second part provides numerous examples of algorithmic patterns of potential use and interest to landscape designers, while the final chapters give three in-depth case studies of its application to specific projects.

+ Doctoral Thesis doi.org/10.15488/3734

Rehabitar la Montaña: Strategies and processes for sustainable communities in the mountainous periphery of Medellín

I was involved in a government funded research collaboration between Leibniz University in Hannover Germany and the planning think tank Urbam at EAFIT University, looking at strategies to reduce risk and improve lives in landslide prone settlements in the periphery of Medellin Colombia. Preliminary results of our research were summarized in a number of major landscape architectural publications (JoLA, Topos), with an open-access version appearing in the Brazilian Journal Urbe.

+ Free download: Open Access academic paper dx.doi.org/10.1590/2175-3369.008.001.SE03



Currently working on...

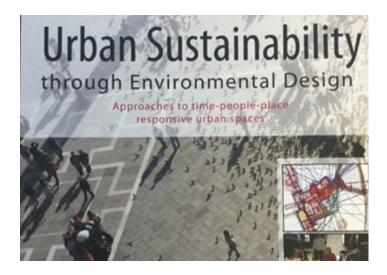
As I am new to Sheffield and the UK, I am currently condensing the results of my thesis into a series of articles for publication before beginning my next projects. Recent and forthcoming publications include a contribution to Bradley Cantrell and Adam Mekies' book Codify: Parametric and Computational Design in Landscape Architecture, (Routledge, 2018) and an essay on the evolution of the Harvard University Campus Landscape for the volume Landscape and the Academy, published by Dumbarton Oaks (2019).



j.claghorn@sheffield.ac.uk

Kevin Thwaites

Experiential landscape // socially restorative urbanism // socio-spatial urban design //



Restorative urban open space: Exploring the spatial configuration of human emotional fulfilment in urban open space.

This paper takes the well established understanding of restorative places and applies an urban landscape architecture interpretation focused on identifying the relevance of spatial configuration. It develops a conceptual framework for urban design which supports human wellbeing in urban settings. The paper lays foundations for subsequent work in experiential landscape.

+ Free download: Open Access academic paper eprints.whiterose.ac.uk/94857/7/ Restorative%20Urban%20Open%20Space%20 0804%20%28revised%29.pdf

Experiential Landscape: An Approach to People, Place and Space

In this book we take a holistic view of human - environment relations and explore relevant philosophical underpinning in order to develop a theoretical structure for an experiential landscape mindset. This underpins the development of experiential mapping methodology for application in practice. In the book we use case studies and field based research to demonstrate

how this approach can be applied in practice.

+ Book: Paperback, Hardback & ebook www.routledge.com/Experiential-Landscape-An-Approach-to-People-Place-and-Space/ Thwaites-Simkins/p/book/9780415340007

Socially Restorative Urbanism: the theory, process and practice of experiemcs

This book focuses on the social implications of urban planning and design. It is based on a reconceptualization of urban environments as evolutionary places, rather than material and economic products. Change, adaptability and growth are explored through advancing the importance of edges, especially between build form, adjacent open spaces and processes of territorialisation. It ends by proposing an agenda for research, teaching and practice to advance the importance of integrated relationships between the social and spatial.

+ Book: Paperback, Hardback & ebook www.routledge.com/Socially-Restorative-Urbanism-The-theory-process-and-practiceof-Experiemics/Thwaites-Mathers-Simkins/p/ book/978041559603

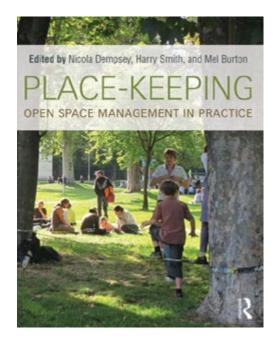
Currently working on...

I am working on advancing aspects of the Socially Restorative Urbanism agenda. This involves locating its principles within wider socio-spatial design thinking, especially through exploration of the relationship between urban material structure, spatial organisation and social behaviours. This includes, the concepts transitional edges, micro-environments and scalar slippage. This currently informs teaching in 3rd year undergraduate and master level projects in urban design. I work closely with <u>James Simpson</u> in developing a strategic approach to socio-spatial design.



Nicola Dempsey

Long-term landscape design, planning and managment // policy implementation into practice // decision-making //



Place-keeping partnerships handbook

This handbook provides practical guidelines from our research where we looked at open space management partnerships across Sheffield which bring together community groups, public, private and third sector organisations. We asked about their opinions and experiences of what does and what doesn't work well in partnerships.

<u>+ Free download: Handbook</u> www.place-keeping.org/s/Partnerships_ handbook.pdf

Community food growing in parks? Assessing the acceptability and feasibility in Sheffield

This is the first of three papers exploring the acceptability and feasibility of a range of alternative park management practices which calls on Dr Jinvo Nam's recently completed PhD research. While local residents are positive about getting involved in community food growing, community groups and parks managers are much more sceptical raising concerns of sustaining involvement and potential

vandalism, raising questions about whether public parks are an appropriate setting.

- + Free download: Open Access academic paper www.mdpi.com/2071-1050/10/8/2887
- + Free download: Open Access academic paper www.mdpi.com/2071-1050/11/2/360

Contracting-out Parks and Roads Maintenance in England

This paper provides empirical evidence about how contracting-out is currently delivering public services and how it has changed in recent years. The findings suggest that responsibilities (and to a lesser extent, budgets) are increasingly shared in England between different combinations of public, private, third and community sector stakeholders, marking a shift away from inhouse public sector delivery.

<u>+ Free download: report</u> www.emeraldinsight.com/doi/pdfplus/10.1108/ IJPSM-02-2016-0029

Currently working on...

As well as working on the third acceptability and feasibility paper with Jinvo, I am an investigator on the 3-year Improving Wellbeing through Urban Nature research team which ends in summer 2019. My role involves finding out how Sheffield's natural environment can improve the health & wellbeing of city residents, focusing on the contribution of specific interventions. This involves examining how the interventions are affected by decision-making, policy interpretations, politics, funding & landscape management processes.

+ Keep up to date with these findings www.iwun.uk



n.dempsey@sheffield.ac.uk



@DrNicolaDempsey

Nigel Dunnett

Planting design // green roofs // water-sensitive design // urban meadows // climate-adapted landscape // landscape ecology //

The Dynamic Landscape: ecology, design and management of urban naturalistic vegetation

This book brings together a range of authors at the forefront of ecological landscape design and provides a coherent philosophical basis and argument for creative and socially-engaging urban greening. Separate sections cover wetlands, woodlands, and herbaceous vegetations, with technical detail and design guidelines. A new edition is in production, with additional emphasis on urban green infrastructure, temporary and meanwhile applications, and a full international perspective.

+ Book: Paperback, Hardback & ebook www.crcpress.com/The-Dynamic-Landscape-Design-Ecology-and-Management-of-Naturalistic-Urban/Dunnett-Hitchmough/p/ book/9780415438100

Meadows as an alternative to intensely mown urban grassland: effects of composition and structure on biodiversity

This paper contains the results of a largescale consortium research project. I designed the experimental basis for this work (a comparison of standard mown amenity grassland compared with seeded meadows of differing heights and species diversity). In the paper we demonstrate that urban meadows produce biologically diverse grasslands that support richer and more abundant invertebrate communities, and restructured plant, invertebrate and soil microbial communities compared with mown amenity grassland. Our results suggest that a mosaic of meadow types across the urban greenspace network could maximise cumulative biodiversity benefits.

+ Academic paper (in press 2019)

Naturalistic Planting Design: The **Essential Guide**

This book distils my research and practice experience in ecological and naturalistic planting design. The book develops a theoretical background to explain the benefits of naturalistic planting, from a scientific and human viewpoint. A framework is presented that explains the development of, and similarities and differences between, the different strands of contemporary naturalistic planting design. A straight-forward design methodology is proposed that cuts through some of the increasingly complex and technical aspects of the discipline. The book is fully illustrated with details and examples from my own projects, and emphasis is placed on urban applications.

+ Book: Published by Filbert Press



Currently working on...

I currently prioritise putting my research into practice through active collaborations. This focuses on podium landscapes for high-density cities (The Barbican), long-term monitoring of dynamic urban plantings and dry meadows and steppe plantings for green roofs and roof gardens.



n.dunnett@sheffield.ac.uk

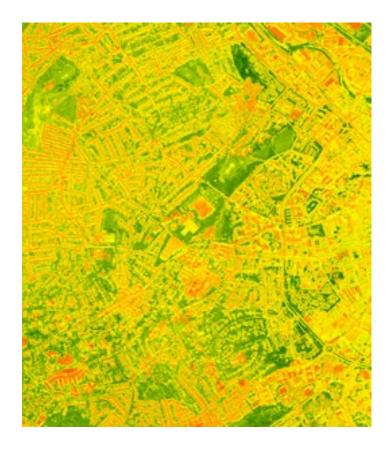


@NigelDunnett



Paul Brindley

GIS // spatial analysis // land use // classification // statistics //



Domestic gardens paper

This paper looks at the health benefits of greenspace to urban residents, with a particular emphasis on how domestic gardens contribute to wellbeing. We found a significant association between average garden size and self-reported general health even after removing likely effects associated with socio-economic characteristics (such as levels of deprivation). This has particular relevance for planning of new housing and gives key recommendations of the value of different sizes of garden.

+ Free Download: Open Access academic paper ij-healthgeographics.biomedcentral.com/articles/10.1186/s12942-018-0148-6

Rural Urban Classification

This is a dataset and tool for practitioners that provides authorative definitions for urban and rural areas. It also includes classifications relating to settlement type. This can be used when aggregating data in GIS or within statistical analysis. Covering England and Wales, this Classification is free to use and includes a supporting user guide.

<u>+ Free Download: Dataset</u> www.gov.uk/government/statistics/2011-ruralurban-classification

Vague Neighbourhoods

Whilst local understandings of neighbourhood boundaries are notoriously fuzzy and subjective, this paper explores how data from web sources might be used as a method to determine a consensus delineation. As such it tries to bridge the varying perspectives of administrative areas with locally tacit understandings of place.

+ Free Download: Open Access academic paper eprints.whiterose.ac.uk/124518/

Currently working on...

I am working on a new bid for a research grant to explore how social media data may be used as part of evaluations relating to greenspace use and quality. Alongside students within the department I am also testing innovative methods for improving visual analysis using LIDAR data to both measure greenspace exposure and enhance LVIA techniques. (generating hybrid approaches relating to Zones of Theoretical Visibility and Zones of Visual Influence).



p.brindley@sheffield.ac.uk



@DrPaulBrindley

Ross Cameron

Plants and ecosystem Services // green walls and roofs // changing climate // gardens and health //

Green Infrastructure and Ecosystem Services – Is the Devil in the Detail?

In this paper we highlight the value of plants in providing services and benefits and the need to select the right plants for specific functions- Right plant. Right place, Right function! A viewpoint paper that is a 'call to arms' to look into the detail of plant selection.

+ Free download: Open Access academic paper eprints.whiterose.ac.uk/102682/13/ GreenInfrastucture.2-54.pdf

Gardening in a Changing Climate - Report for the RHS

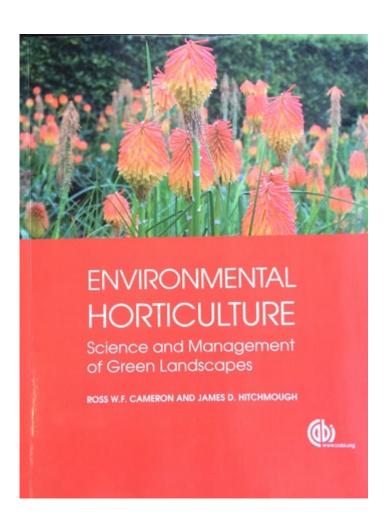
This takes data on climate change and its impact on our weather to discuss how gardens may be designed and managed in the future. There is a horizon scanning exercise that reviews the types of landscape plants that will increase in importance due to their climate adaptability, resilience and function. Scenarios are outlined for different parts of the UK.

<u>+ Free download: Report</u> www.rhs.org.uk/science/pdf/RHS-Gardening-ina-Changing-Climate-Report.pdf

Environmental Horticulture: Science and Management of Green Landscapes

This book is a comprehensive overview of the value and services associate with urban green spaces, and how these are optimised by management. Scientific rationale behind why green spaces can be good for human health and well-being, promote biodiverse functional ecosystems and help provide resilience against climate change.

<u>+ Book: Paperback</u> www.cabi.org/bookshop/book/9781780641386



Currently working on...

I have a number of PhD students working on a variety of projects related to urban green space:

- The role of urban biodiversity in influencing human well-being (IWUN project)
- The value of gardening and components of gardening that are deemed restorative (RHS funded)
- Plants and the thermal load on buildings
- Urban plants for improving air and water quality



r.w.cameron@sheffield.ac.uk



@RossWFCameron

On-going funded research projects

Improving Wellbeing through Urban Nature (IWUN) 2016-2019

<u>Anna Jorgensen</u> // <u>Nicola Dempsey</u> // <u>Clare Rishbeth</u> // <u>Paul Brindley</u> // Ross Cameron //

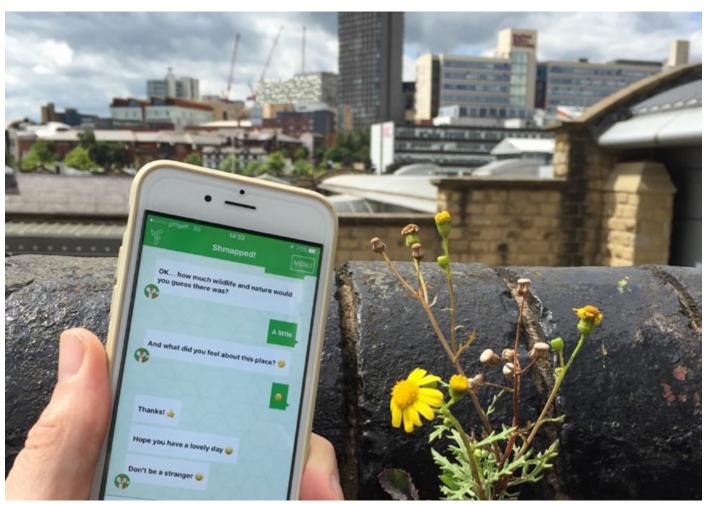
Research staff based in the Department of Landscape Architecture: Jo Birch, Julian Dobson, and Meghann Mears.

There is considerable evidence that a healthy natural environment and regular access to it, can contribute positively to the wellbeing of the population, and that it has the most benefit on those with the highest levels of ill-health. Increased positive interaction between people and the natural environment could be a significant part of

the UK's future health care arrangements. However, this potential is not yet being fulfilled, in part because we do not fully understand how and why people interact with the natural environment, and which aspects of the environment, and people's experience of it, lead to positive health and wellbeing outcomes.

The diverse quantitative and qualitative methods used in this research project have led to new findings that have the potential to enable us to design and manage our urban spaces more effectively to generate wellbeing benefits, and to engage critically important sections of society more effectively.

<u>+ For information on upcoming events in</u> <u>Sheffield and London</u> iwun.uk



On-going funded research projects

Playing the Archive 2017-2019

Helen Woolley //

Research staff based in the Department of Landscape Architecture: Julia Bishop, Alison Somerset Ward, Cath Bannister, and Jackie Marsh.

Playing the Archive: Memory, Community and Mixed Reality Play, which is a partnership between the University of Sheffield, UCL, the Bartlett School of Architecture with the Bodleian Libraries and the V&A Museum of Childhood aims to explore the nature of play through the ages and bring together archive material with modern technology. The EPSRC funded project will create a 3D, virtual reality environment in which users, both old and young, can experience 1950s style play. To

achieve this, the researchers will digitise and catalogue substantial sections of the Opie archive, held at the University of Oxford's Bodleian Libraries.

The archive, which is the work of folklore experts Iona and Peter Opie, features thousands of accounts from school children from 1951 onwards about their favourite games, rhymes and songs. The researchers will use this digital catalogue to create the virtual reality environments, which will be freely available to visitors at the V&A Museum of Childhood in London and the Weston Park Museum in Sheffield. The project also aims to build two experimental 'smart' playgrounds in London and Sheffield, which will link to the Opie archive.

+ Website: playingthearchive.net

Adaptive Urban Transformation (AUT): Territorial governance, spatial strategy and urban landscape dynamics in the Pearl River Delta

Eckart Lange //

Research Associaties: Sigrid Hehl-Lange, and Adam Tomkins.

This project concerns planning and management for more resilient urban deltas. In particular, adaptation of the dynamics of urban deltas to address increasing flood risk. The project evaluates innovative territorial governance as an approach to create spatial strategies that may unlock the adaptation options, especially by integrating urban planning and water management, and engaging with stakeholders. The overall aim of the research is to develop an integrative and

multiscale design and planning approach for adaptive urban transformation in fast urbanising deltas. It uses the Pearl River Delta as a case study. The project will combine work in China, the Netherlands and the UK to: develop a portfolio of integrated adaptation measures based on an assessment of ecological capacity and life cycles of buildings, urban districts and regions; identify potential in territorial governance structures for more integrated approaches and adaptation measures; and, develop and test innovative 3D visualisation techniques that facilitate participatory, multi-stakeholder planning approaches. For the first time, established and regular urban transformation processes will be used as opportunities to adapt systems in urbanized deltas at relatively low costs. Furthermore, the research will identify institutional. cultural and financial innovations that are needed in territorial governance to steer the development of urban and rural areas towards more resilient futures.

+ Website: adaptiveurbantransformation.com

Recent PhD theses

Investigating potential altitudinal-environmental variation on recruitment, AL FARSI, regeneration and re-establishment of Juniperus serayschanica in K.A.A.Y. Northern Oman. Public Open Spaces in Bahrain: The potential for Transcultural AL MADANI, W. Conviviality. 3D landscape visualisation on mobile devices for participatory planning BILGE, G. and design. Everyday Interculturalism in Urban Public Open Spaces: A Socio-spatial GANJI, F. Inquiry in Bradford City. History and Conservation of Rockwork in Gardens of Imperial China. GU, L. LHOMME-Redesigning Infrastructure a socio-technical approach. **DUCHADEUIL, A.** Front Gardens as Mirrors of Attitude: form and function of front gardens LIU, J. in urban context. Understanding Stakeholders' Perceptions of Current and Future Park NAM, J. Management Practices. The Hong merchant's Gardens during the Canton System and the RICHARD, J.C. aftermath of the Opium Wars. The Chinese Grand Canal World Heritage Site: living heritage in the 21st TANG, J. century? Barriers to Naturalistic Planting in Inner City Parks. TAYLOR, J.H.M.B. Everyday public spaces in an ethnically diverse neighbourhood: VODICKA, G. contextualised convivialities and boundary-crossing urban design. Open Spaces in Informal Settlements in Bangkok, Thailand and the WALLER, M.F. Potential Role for Landscape Architects in their Design and Evolution. The Challenge of Place Identity in the Making and Experience of New XU, Q. Chinese Urban Square. Investigating the Planting Potential for Urban Rain Gardens: Plant YUAN, J.

Selection, Establishment and Performance.

Ways to get involved

Our Department benefits from strong reciprocal links with landscape practice and throughout the year we have a number of opportunities for collaboration, across research, teaching and external events.

Please get in touch if you are interested in, or could contribute to, any of the following activities and events. Our email is landscape@sheffield.ac.uk

Employers Event

February

Showcase your projects and expertise amongst a select group of international practices, whilst networking with staff and current students.

End of Year Exhibition

June

Discover the latest talented graduates in Landscape Architecture at our 'pre-exhibition' employers' showcase. It's a celebration of innovation and hard work, a chance to discuss job opportunities with our graduates and to sponsor prizes for outstanding students.

Whole School Event

November

Lead a two-day design challenge for students across all year groups, providing the brief and creative direction for a project of your choice. Previous leaders include Ares, FPCR and Planit-IE. https://www.sheffield.ac.uk/landscape/news/whole-school-event-2018-andy-clayden-planit-manchester-1.816220

Guest Lectures

Year-round

Taking place within modules, as part of our department seminar series, or organised by our lively student society Landmark, guest lectures allow you to share your expertise and experience.

Professional roles

Year-round

Shape Landscape Architecture education through your professional experience. Roles include module tutors, external examiners and members of the Landscape Institute Professional Review Group.

Thank you to all who attend our events and contribute their skills and time. It is much appreciated.

Get in touch...



@LandscapeSheff



@LandscapeSheff



Floor 13 The Arts Tower, Western Bank, Sheffield S10 2TN



SHEFFIELD . ANDSCAPE . RCHITECTURE