

BARTLETT DOCTORAL REVIEW 2018



BARTLETT DOCTORAL REVIEW 2018

Breaking new generation research
from the Bartlett Faculty of the Built
Environment, UCL



PREFACE

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September 2018

Credits:

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Cover image: “Dissecting a village” by Bernadette Devilat (see page 26).

Doctoral students join the faculty from all around the world, bringing knowledge and experience from a diversity of disciplines, to contribute to the melting pot that is The Bartlett. If The Bartlett is a crucible for innovation, then doctoral researchers are at the heart of the action: contributing in terms of a vibrant research culture, novel academic outputs and achievements. This is what we wish to reflect and celebrate in this review of the 2017-18 academic year.

This review is not simply about showcasing the products of a Bartlett doctoral education. A doctorate may be the highest degree but is not merely an ‘entry level’ echelon of research. Doctoral research is truly at the leading edge of all our research: often the most intellectually risk-taking, disruptive and agenda-setting research. Since there are more doctoral students than staff members, doctoral research is likely to be tackling more, and more diverse, topics: branching into new areas, linking up between traditional topics and opening up new vistas. And, as it involves the next generation, doctoral research can often be seen as providing a glimpse into our future.

This review was created to help showcase doctoral achievement and impact across The Bartlett in the 2017-2018 academic year. This includes reporting of doctoral research itself, and other activities and achievements by doctoral students. Since this is the first year that we do this in this format, and due to the short timescale of its creation, the scope and format is somewhat experimental, and we cannot claim that the selection is wholly representative, far less comprehensive. Rather it is more of a taster; a snapshot of contributions received via an open call, and collated from readily available highlights via the [Bartlett Doctoral Hub](#) and [@TheBartlettPhD](#) Twitter account, both of which we would like to publicise as ongoing sources of information throughout the year.

We hope this selection will provide a stimulating glimpse of Bartlett doctoral research in 2017-18, that can provide an inspiration for future development in the coming year.

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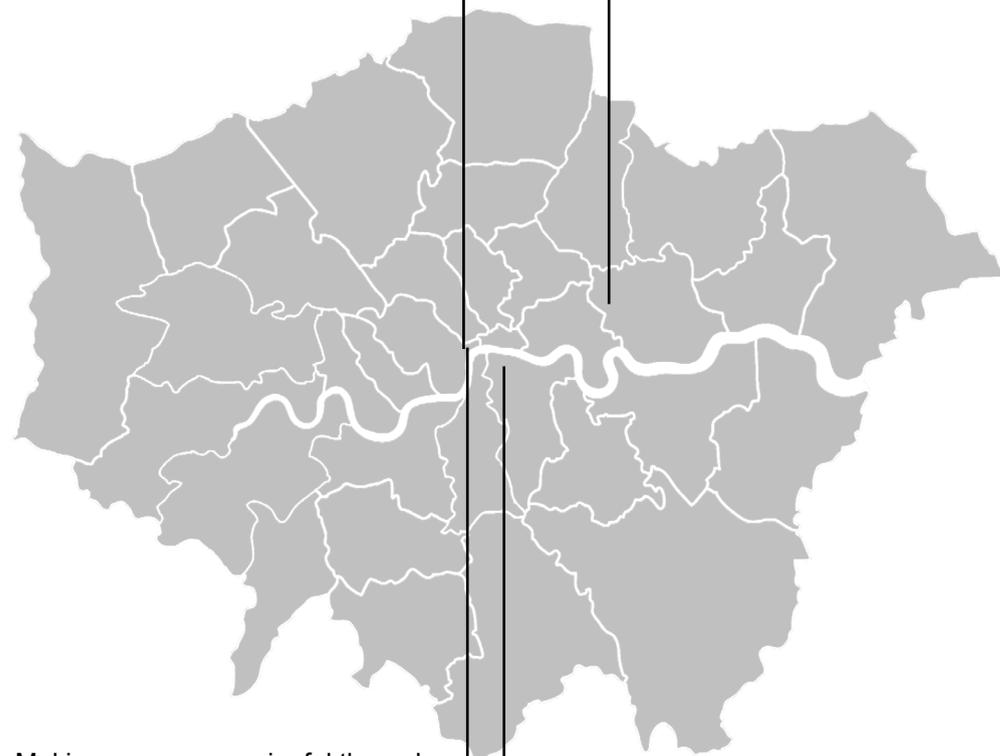
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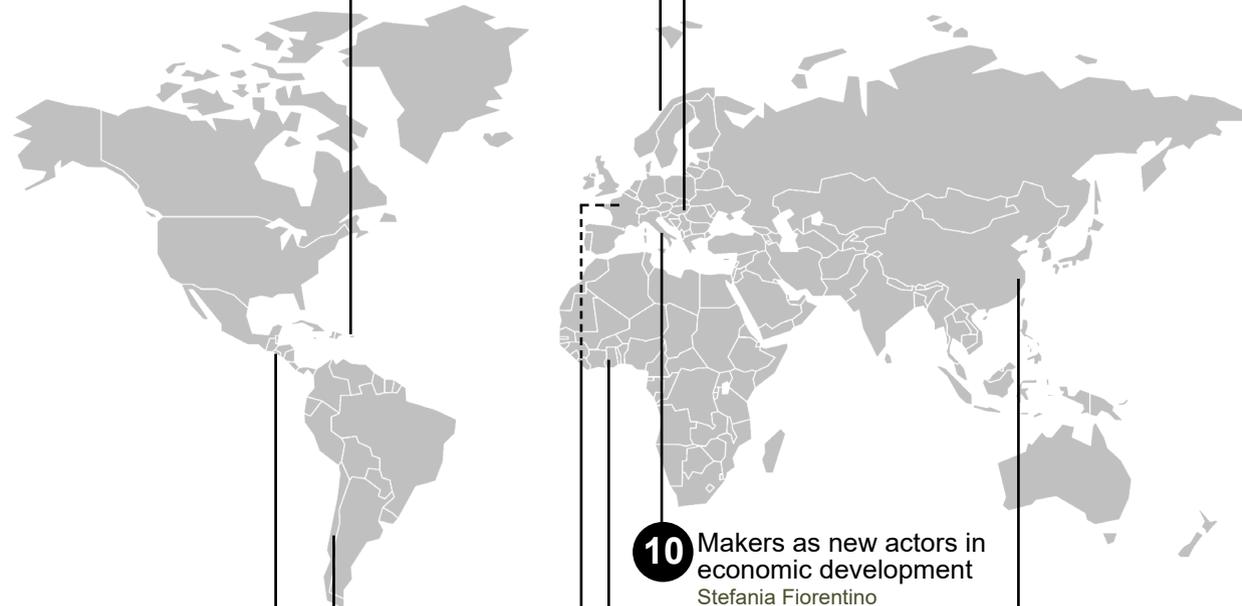
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Making spaces meaningful through architectural storytelling

BSA students take their research to the Royal Academy of Arts



In November 2017, researchers from the PhD programme at [The Bartlett School of Architecture](#) curated an event for the Royal Academy of Arts to explore the relationship between architecture and storytelling, in particular the architect's ability to make buildings speak, creating new spaces while altering our understanding of existing ones.

The participants—Thandi Loewenson and [Ifigeneia Liangi](#) from The Bartlett, Catrina Stewart who is a partner at a cross-disciplinary architecture studio in London, and Kibwe Tavares, an award-winning film director—argued that modern architecture remains capable of embodying spatial narratives.

Further content:

- Blog post on which this feature is based
- Ifigeneia Liangi
- Thi Phuong-Trâm Nguyen

Loewenson presented a live project that is central to her PhD research on the extractive agendas driving urban development in Lusaka, Zambia. The project, a speculative tender for the Lusaka city dump created together with the Lusaka City Council and Waste Recyclers Association of Zambia, imagines how the dump could be managed by those who currently operate on the site. Through the tender process, she explores how stories told of a fictional city called Mailo can disrupt perceived notions of the city, reinventing it to be discovered again by those who live there, supporting the community of waste recyclers to influence the future of the dump.

Mailo tests the possibilities of an architectural interpretation of the literary genre of the New Weird: the creation of politically engaged, urban, 'secondary world' fictions that draw on real-world models and combine elements of science fiction and fanta-

sy. The drawing, making, telling, and interpretation of the fictional space reveal insights into current practices and possible futures for Lusaka. Loewenson illustrated the story of her project with an animated series of drawings, with stories performed alongside.

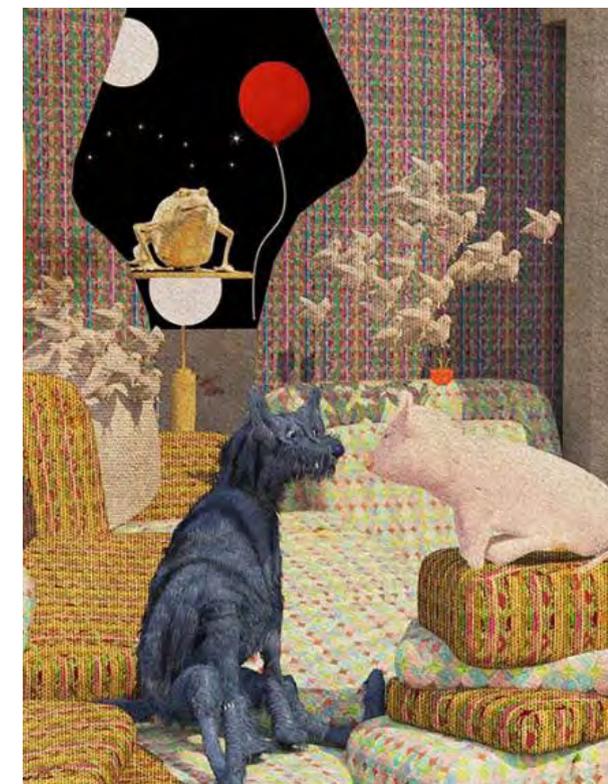
Liangi presented her film, the introduction to her magical realist fairy tale entitled *The Blossomed Bitter-orange Forest*, which is based on her PhD research on Greek architectural storytelling. A driving idea of her thesis is that our normative world is a dream so the magical realist fairy tale should be the method for the creation of a critical and magical architecture. She says that, just as a fictional written narrative can tell meaningful stories, so can architecture, which should have a central figure, be able to speak a public language, and have a message.

In a discussion afterwards chaired by Bartlett doctoral student [Thi Phuong-Trâm Nguyen](#), Loewenson, Liangi,

and the other participants discussed how narratives are transformed using different mediums, among other topics. Loewenson said that her narrative shifts with each interaction between the audience-participants, storyteller, paper, and graphite. The dialogue between those who engage with the fictional and the material transformation of the drawings through this interaction further contribute to the narrative's transformation.

Liangi recounted translating the text of her novel from Greek to English as well as translating from text to drawing to models. She seeks to interpret rather than replicate, a process that creates more openings and stories.

Thanks are due to Dr Penelope Haralambidou and Rebecca Loewenson for full credits see the original [blog](#).



Benches and play in cities

Unpacking the significance of whole-body interactions with urban art and media installations

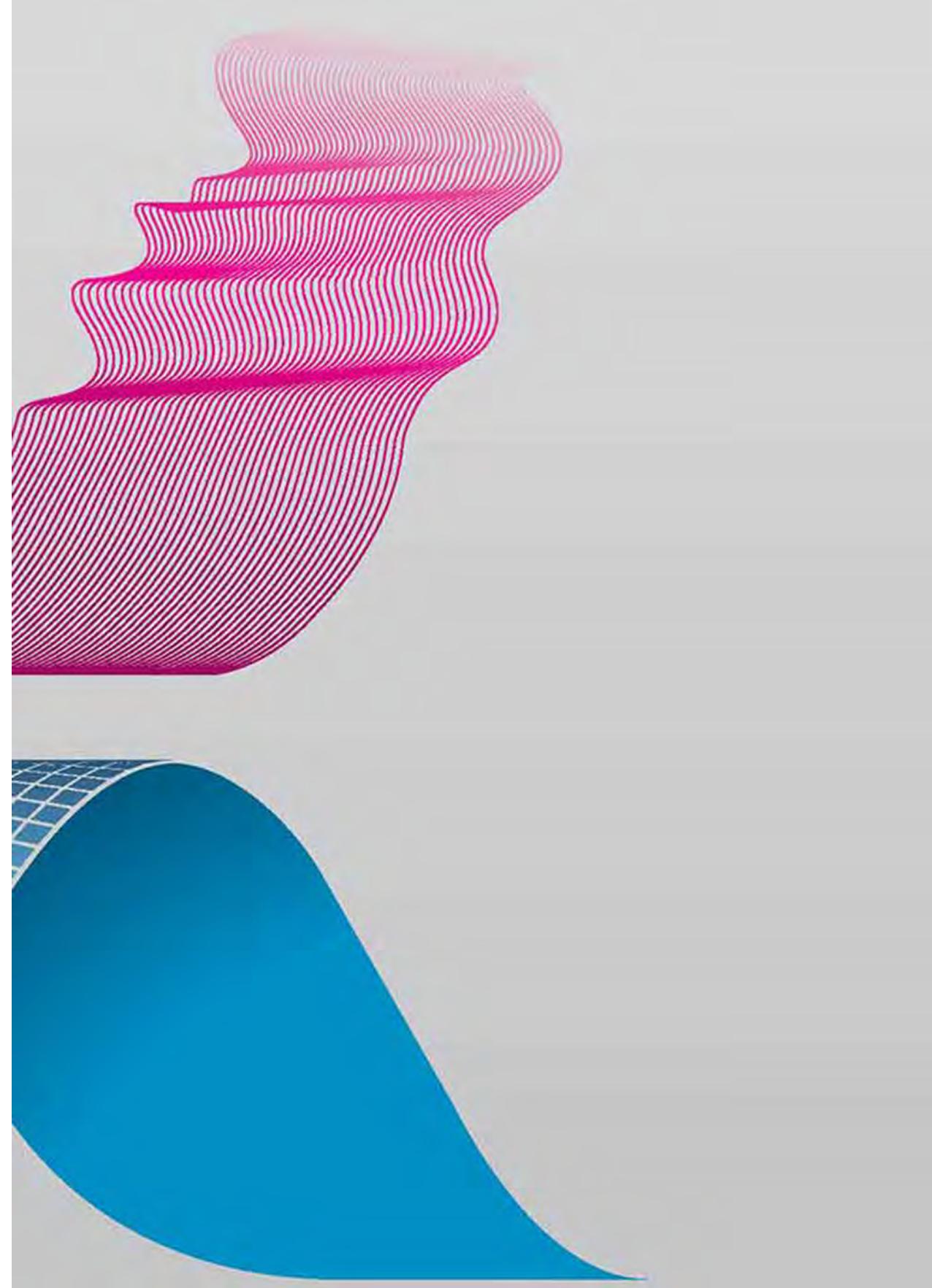
[Andre Afonso's](#) research seeks to understand how interactive art installations may transform urban spaces by bringing people together and creating a lively atmosphere of enjoyment. In a [conference paper](#) and a [journal article](#) published in *Senses and Society* that examine a series of playful and interactive urban art installations called Modified Social Benches, he analyses how different versions of these benches encourage different forms of bodily and social behaviours: some benches attract playful behaviours (e.g. people sliding or climbing on the benches), while other benches are mainly used to rest or to chat. "In other words," Afonso writes, "the artist turns a bench to sit on into sculptures to engage with."

The findings suggest that urban art installations whose design encourages playful and whole-body interactions have a greater potential to attract and retain people than other designs of urban art installations. Such findings are significant because they could help inform the planning and design of thriving urban spaces—places where people feel invited to come, to stay, and to interact.

The case study outlined above was born of exploratory observations that Afonso, an architect and graphic designer, has carried out from the beginning of his doctoral research. Now in the final year of his PhD at the [Bartlett School of Architecture](#), he has searched, observed, documented, and analysed several examples of interactive spaces and installations that encourage whole-body and playful interactions in urban, outdoor spaces. By gathering the results from case studies undertaken in varying urban contexts, Afonso expects to find common elements to support a theoretical and methodological framework of whole-body interactions with technologies in urban settings.

Further content:

-  Conference paper
-  Article
-  Andre Afonso



Using robotic arms to prepare cities and city residents for the future

Ecem Ergin reports from the interface of digital technology, public opinion, and truth

In a recent [paper](#) published in *Pervasive Displays 2018*, Ergin and co-authors Andre Afonso and Ava Fatah gen. Schieck discuss how robotic arms could be used in urban life, “[opening] a door for the use of industrial robots, beyond the walls of museums and factories, with potentially great opportunities for the future.” The article, “Welcoming the orange collars: robotic performance in everyday city life,” takes as its starting point the December 2017 art installation [“Where do we go from here?”](#) designed by Jason Bruges Studio for Hull UK City of Culture 2017, to explore the potential for positive human-computer interaction, ultimately resulting in peaceful coexistence.

The article argues that robotic arms have the advantage of being novel enough to surprise and still familiar enough for humans to connect with them, and concludes that the presence of robotic arms in cities would enrich the everyday urban experience. By providing a pretext to gather and a platform to

interact, this exposure would prepare humans for increased engagement with robots, or “orange collar workers,” in the future.

[Ergin](#) is a PhD student in [Architectural Space and Computation](#) at The Bartlett working on the curation of public opinion with digital tools in actual and virtual urban environments. She is a photography and video editing enthusiast and shares her architectural photos [@art_ik_er](#) under the title, “Imperfect is beautiful.”

Andre Afonso is currently a PhD student at The Bartlett School of Architecture, Ava Fatah gen. Schieck is a Reader in Media Architecture and Urban Digital Interaction, and Jason Bruges is an alumnus.

Further content:

-  Article
-  Ecem Ergin
-  Andre Afonso



Makers as new actors in economic development

Stefania Fiorentino traces the trajectory of local economic development and evaluates the impact of its current iteration

“I believe that our duty as scholars in disciplines related to planning and economic development is to predict an issue and assess possible ways to tackle it,” says Fiorentino, a PhD student at [The Bartlett School of Planning](#). Fiorentino recently published an [article](#) in *Geoforum* entitled, “Re-making urban economic geography. Start-ups, entrepreneurial support and the Makers Movement: a critical assessment of policy mobility in Rome.” The piece examines policy mobility in urban regeneration strategies to support the creation of new enterprises.

The article highlights how the buzz-

words used to describe these strategies have evolved since the 1990s, as have the types of businesses recruited to spearhead local economic development. These shifts reveal the emergence of a new type of urban economy that cannot yet be tackled as a traditional economic sector, and the lack of governance tools to accommodate these changes. Fiorentino concludes by opening a debate regarding new policy strategies and ways to quantify and enhance the development produced by urban ecosystems of entrepreneurs amongst which makers represent a valuable window for initial observations.



Further content:

- 📄 Article
- 👤 Stefania Fiorentino

[Stefania Fiorentino](#) is an architectural engineer and a chartered real estate surveyor. Before coming to UCL in 2015, she worked in architecture, urban regeneration, and real estate in Paris, Milan, and Rome. These experiences informed her research interests in local and regional economic development, agglomeration theory, urban regeneration, and real estate economics. Fiorentino received a UCL Education Award earlier this year with colleagues commending her natural ability as an educator and the excellence of her research.

What do our words say about gender?

Fanny Fröhlich reflects on her doctoral fieldwork in Ghana

In the course of six months of fieldwork in rural eastern Ghana in 2017, the Development Planning Unit's Fröhlich examined links between language and ideas as part of her ongoing PhD research on conceptualisations of gender roles and relations. By reaching an in-depth understanding of these ideas, Fröhlich hopes that all stakeholders in development projects that target gender issues will find meaning in these initiatives.

Three words and expressions in Twi, an Akan language widely spoken in Ghana, have been useful for Fröhlich as she formulates her research findings. The first, 'love reigns,' or *ɔdonso*, indicates harmony or peace, the absence of any particular or severe problem in one's surroundings. It also signifies a situation that is desirable, especially in terms of gender relations: something to work towards and cherish when it is present.

The second expression is, 'I go to church,' or *Me ko asɔre*. In Ghana, religion serves a key coping function and provides people with direction and meaning. The church community can also become a social safety net in places where public services are limited or absent. While Fröhlich observed that Christian teachings in Ghana promote a certain set of traditional gender roles and relations, Focus Group Discussions (FGD) revealed the nuances and limits of these expectations. In particular, people in positions of authority only retain that authority if they fulfill the responsibilities that go along with their role. Most women and some men agreed that if a man is unable to ensure his family's wellbeing, for example, he forfeits his right to be the head of the house and his decisions no longer have to be accepted without question.

In many rural communities in Ghana, food preparation and domestic tasks fall mostly to women and girls. Nonetheless, most men state that they sup-



port their wives in domestic chores in specific situations, such as when their wives are pregnant or sick, and FGDs made clear that more men are willing to help regularly, especially in urban areas. Fufu, made from yams and cassava, is a traditional dish in Ghanaian cuisine. Preparing it entails both pounding and stirring, often done simultaneously and called *awoka* in Twi. At times, these tasks are shared: one person stirs and the other pounds.

With degrees in international studies and history from Denmark and Austria, respectively, Fröhlich's professional and academic work focuses on gender and she has a long-standing commit-

ment to working with local organisations and communities in the Global South. She is a lecturer on gender and development at the Hult International Business School in London.

Further content:
📖 Blog post on which this feature is based
👤 Fanny Fröhlich

Harnessing participatory approaches to improve quality of life

What contributes to wellbeing and better quality of life in public spaces, in different contexts? What is nature's role in this?

[Nikolett Puskás](#), a PhD student at UCL's [Institute for Global Prosperity](#) (IGP), is investigating place-based notions of these questions and currently conducting fieldwork in Budapest supported by grants from UCL's Connected Curriculum and the [UBEL Doctoral Training Partnership](#) (DTP). Next year she will be in Beirut as part of efforts with the RELIEF Centre, a trans-disciplinary research collaboration led by the IGP alongside other departments at UCL, the American University of Beirut, and the Centre for Lebanese Studies.

Puskás is exploring the nature and meaning of wellbeing and quality of life in urban settings and integrating community perspectives. Through active community participation and collaborative design, including gamification concepts to facilitate informal learning and co-creation, the project seeks to transform urban spaces, making them more inclusive and diverse while promoting wellbeing for all in an ecologically conscious manner. The data collection also involves identifying the most pressing local challenge in terms of public infrastruc-



ture, defined in partnership with the local community, and then mapping all stakeholders of that particular domain.

The trans-disciplinary approach is central to Puskás' research, leading her to work with local collaborators (government, academics, students, activists, NGOs, etc.) as well as people from across UCL. Involving multiple local actors aims not only to achieve genuine engagement, but also to recognise and utilise local knowledge to resolve challenges that the community identifies. Additionally, it enables the exchange of experiences and knowledge such that people in different locations can learn from and be inspired by each other.

Further content:
Blog post on which this feature is based
Nikolett Puskás

Film premieres at the Pompidou Centre in Paris

Killian Doherty explores neo-colonial architecture, town planning, conflict, and development in Sub-Saharan Africa

After winning UCL's 'Open-City Docs' collaborative film-grant in 2015, architect and Bartlett PhD student Killian Doherty and filmmaker Edward Lawrenson visited Yekepa, a remote new-town in Northern Liberia that was designed and built by a mining company prospecting for iron-ore in the late 1950s. Yekepa emerged through Western investment in the natural resources of a 'developing' Africa, becoming a built symbol of utopian promise. This symbolism voided local inhabitants' claims to their ancestral lands and led to their eventual displacement. The resulting film, *Upland*, traces the complex relationship between land, displacement, and the global extractive industries within, and beyond, Sub-Saharan Africa using the neo-colonial architecture and planning of the town.

The film was selected as a World Premiere in the International Competition for Short Films at the 40th edition of the Cinéma du Réel festival, held at the Centre Pompidou in Paris and partner venues, from 23 March to 1 April 2018. The film is related to [Doherty's](#) PhD research on Sub-Saharan Africa, modern architecture, and landlessness and will

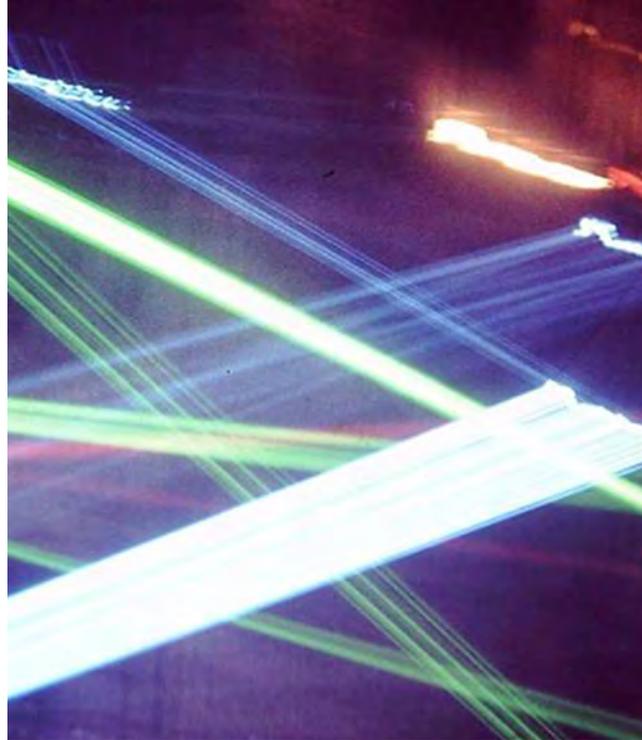
tour international festivals throughout 2018 before returning to UCL where Doherty is studying cultural and spatial conflict of 'development' from the perspective of indigenous forest communities in a modernising Rwanda. The film was screened again at the ICA in September 2018 as part of [Open City Docs](#).

Further content:
Blog post on which this feature is based
Killian Doherty



Making time and space at the RA

Architecture students collaborate with the Royal Academy



Doctoral students from [The Bartlett School of Architecture](#) brought together writer and filmmaker Carol Mavor and architect-composer collaborators Steve Chance and Scanner at the Royal Academy of Arts for in December 2017 to examine the relationship between time and space.

The event [Time | Making | Space](#) began with host [Ruth Bernatek](#), PhD candidate and co-founder of the doctoral initiative [Sound Making Space](#) at BSA. Bernatek, whose research is about the material and cultural presence of music in architecture, outlined the impact of time on architecture through animating urban forces, weathering, and our dynamic experiences of inhabiting spaces. Later in the evening, BSA alumnus [Sander Hölsgens](#), and architect, composer, and BSA PhD teaching fellow [Emma-Kate Matthews](#) considered the potential of time-based media like film and music to generate space. Hölsgens also screened a film in which he articulates and explores

the phenomenologies of physical distance and a temporal lag.

This text was adapted from a February 2018 blog post by BSA PhD student Rebecca Loewen who studies the spatial design implications of Marcel Duchamp's mid-twentieth century notes on the concept of inframince.

Further content:
📖 [Blog post](#) on which this feature is based
👤 Ruth Bernatek
👤 Sander Hölsgens

Bartlett filmmakers on top of the world

Former and current students screened their works at the Arctic Moving Image and Film Festival

Following on from her work with The Bartlett [Film+Place+Architecture Doctoral Network](#) and the Architecture Film Festival London, Bartlett PhD student [Anna Ulrikke Andersen](#) curated a screening of films by British filmmakers engaging with the built environment. Alongside [White Mountain](#) (2016) by Emma Charles, the screening included Bartlett alumnus Ollie Palmer's film [Scriptych](#) (2016). Both Palmer and Andersen attended the festival in Harstaed, Norway in October 2017.

Palmer made [Scriptych](#) (2016) in collaboration with Simon Valastro when he had an artist residency at Palais de Tokyo in 2015-2016. The film captures a live performance at the Paris Opera Palais Garnier, where two dancers are equipped with embedding sensors that measure their movement and control both music and the words spoken aloud in real time. Filmed from above, the couple's communication becomes increasingly fragmented as the piece develops, posing questions about the location of meaning in messages and movements, and the impossibility of communicating true intent. [Scriptych](#) (2016) formed an integral part in Palm-

er's PhD thesis on scripted performance, completed in 2017.

The screening focused on architecture and film. In the specific context of the Arctic Moving Image and Film Festival, the conversation revolved around the way artists making films can think about the architecture and built environments in their work. Palmer's work opened for questions regarding control and technology, discussed in detail during the Q&A chaired by Andersen.

Andersen's own film, [Journey to Italy](#) (2016), was screened as part of the open call, themed 'transformation'. Forming a central role in Andersen's PhD thesis focusing on the window in the life and theory of Christian Norberg-Schulz, the film is based on a five-day train journey between Norway and Italy. Andersen's film captures changing landscapes, climate, architecture, and light, where the use of MRI (magnetic resonance imaging) creates alternative and even conflicting views of mobility and spatial orientation.

Further content:
📖 [Blog post](#) on which this feature is based
👤 Anna U. Andersen

Using mobile phone data to estimate populations in real-time

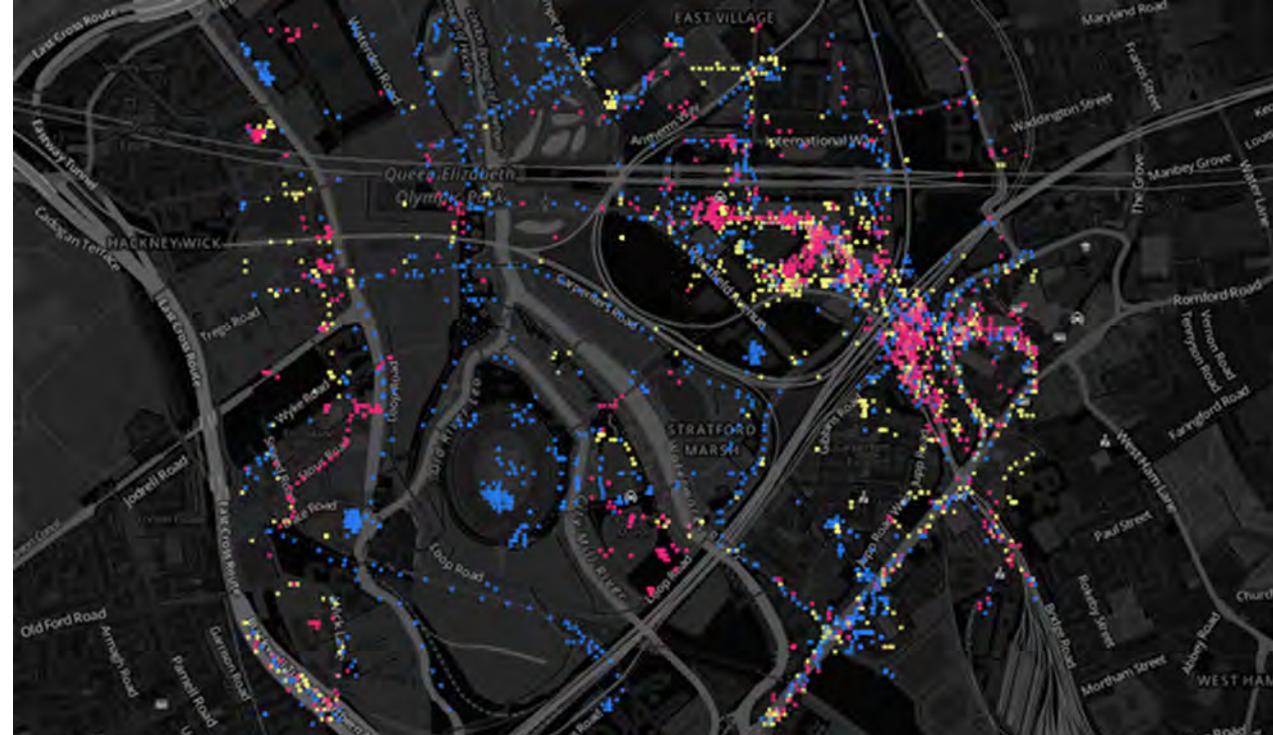
Sharon Richardson produces innovations in 'digital sensing'

While urban planning often takes the long view, from five to fifty years and beyond, the increasing digitisation of everyday life is making it possible to gather data at much smaller spatial and temporal scales. One aspect of urban analytics to benefit from this change is the science of where people are, which is at the heart of [Sharon Richardson's](#) doctoral research at The Bartlett [Centre for Advanced Spatial Analytics \(CASA\)](#) in behavioural data science in which she examines how environmental and behavioural data traces can provide insights into human dynamics in urban open spaces.

Richardson presented her work in November 2017 at the "Smart Cities and Planning: New Urban Agenda, New Urban Analytics" conference hosted by CASA, part of a two-year research program in [Applicable Urban Informatics](#) sponsored by the MacArthur Foundation.

Traditionally, the gold standard for estimating the population of an area is administrative data—the residential population provided by the most recent census. In reality, that tells us where people are mostly likely to be when they are asleep. Using the residential census makes sense for urban decisions about fixed local infrastructure needs, such as how many school buildings are required to serve a district. But a residential count can result in misleading statistics when applied to dynamic phenomena such as quantifying the population at risk of exposure to air pollution or as a normalisation measure to calculate street crime rates.

In recognition that the residential population does not reflect where people are during the daytime, a recent innovation has been the ambient population count, an estimate of where people are during an average working day. The ambient population is usually calculated by redistributing the resi-



dential population according to land use data, identifying where people work, study and play. The 2011 census included a workday population measure for the first time. However, even the ambient population count is a generalisation. Part of Richardson's research is exploring whether or not we can make use of mobile phone data to produce an active population count in near real-time using data from Queen Elizabeth Olympic Park in Stratford, east London.

New urban data sources such as readings from mobile device apps and social media interactions shared online are providing new insights into human dynamics. Whilst there are many valid questions and concerns about using such data, such as demographic bias in adoption and small sample sizes, this study suggests there may be potential in combining the robustness of administrative data sources with the finer spatial and temporal resolution of 'reality' data to better understand

dynamic urban and social phenomena. Further research is now being undertaken to validate the findings and determine the feasibility of providing an active population estimate at street-level in near real-time.

Further content:
📄 [Blog post](#) on which this feature is based
👤 Sharon Richardson

Pushing Boarders

This conference in June 2018 brought together skateboarders, policymakers, and academics to discuss the social impact of skateboarding around the world

After years of research, planning, and partnership, the first international, inter-disciplinary conference on skateboarding brought together more than 1,700 people in London. The initiative was presented by Re-verb Skateboarding, a collective founded by Bartlett PhD student [Thom Callan-Riley](#) and recent Bartlett graduate [Sander Hölsgens](#); SkatePal, a skateboarding NGO working with communities throughout Palestine; and Long Live Southbank, a campaign to secure and expand free creative space in the centre of London.

According to Hölsgens, the aim of the conference was to promote “diversity and inclusion within skateboarding...a scene that is, at times, progressive and supportive, but can also be homophobic, racist, and socio-politically ignorant.” Gustav Eden from Skate Malmö took on this issue directly in a panel on the built environment. “There are almost no public spaces for women,” he noted. “If female skateboard-

ing increases in popularity, city planning for skateboarding could pave the way for intentionally inclusive spaces.”

In the course of his doctoral research on how skateboarders in Seoul negotiate urban space, Hölsgens recalls that his work was dismissed in multiple academic conferences. “Skateboarders do think and write critically about skateboarding, and so I considered it vital to both celebrate and critically reflect on these skater-led developments, if only to encourage young scholars to take part in this small, but growing, field of research,” he said.

 **Further content:**
 [Blog post](#) on which this feature is based
 [Thom Callan-Riley](#)
 [Sander Hölsgens](#)



Democratising art through the 'Museum without Walls'

Outcome of doctoral research offers unprecedented access to art online

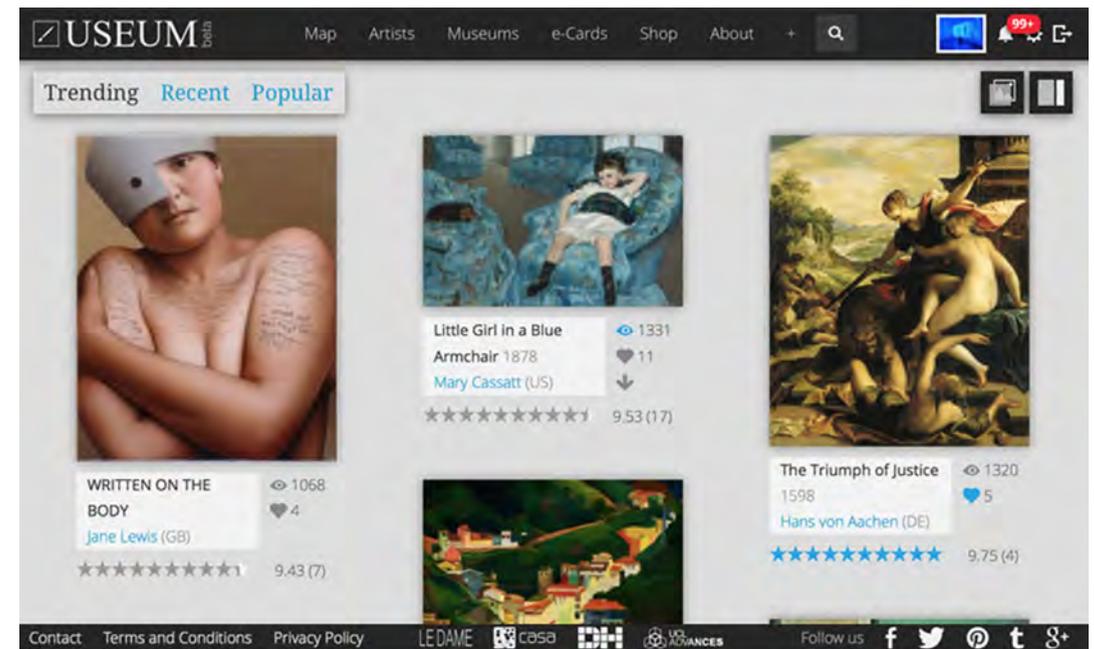
An imaginary museum that exhibits all of the world's greatest art under one roof, free of geographical constraints, was first envisioned by French philosopher Andre Malraux in his book *Le Musée Imaginaire* (1965). A realisation of Malraux's 'museum without walls' (as it was translated) is USEUM.org, an online art museum that exhibits 84,000 paintings by 2,000 participant painters and hundreds of museums from 107 countries around the world. True to Malraux's vision, **USEUM** is the first platform that exhibits a collection of paintings, drawings, and illustrations from the fourteenth century to the present day, ranging from Old Masters to contemporary art.

USEUM started as the inter-disciplinary PhD project of **Foteini Valeonti** based between *The Bartlett Centre of Advanced Spatial Analysis (CASA)* and the *Centre for Digital Humanities*. Completed in November 2017, USEUM seeks to increase access to art online through crowdsourcing. Now, 22

visitors can search, browse, add artwork to the platform, and send artwork as e-cards. In addition to its exhibition of paintings, USEUM also has 22,000 pages of educational content that explain key movements in Art History in simple language. The site receives nearly 1,000 visitors each day.

Amongst USEUM's most notable achievements in its efforts to democratise art is that the platform has received more than 140,000 artwork ratings from its members, resulting in one of the first ever democratically-curated art exhibitions. Rankings are crowdsourced from USEUM's members without involvement from a professional curator.

Also key to the project is the Download Artworks feature. More than a quarter of USEUM's collection can be downloaded and used for any purpose, even commercially, anywhere in the world. Valeonti did extensive work on the Open Content movement



examining art copyright law and the individual copyright policies of the participant museums. Valeonti individually copyright-vetted more than 5,000 pieces herself.



Further content:
Blog post on which this feature is based
Foteini Valeonti

Grappling with architectural modernity in China

Bartlett graduate and lecturer publishes three books based on his doctoral research



“One thing you soon realise after completing your PhD is that it never really leaves you,” says [Edward Denison](#) whose PhD thesis, completed in 2012, has spawned not one but three books.

One book discusses Luke Him Sau, a Chinese architect who studied at the AA from 1927-1930 and was hired by I. M. Pei’s father as the first Director of the Bank of China’s Architecture Department. *Luke Him Sau: China’s Missing Modern* (Wiley, 2014) explores the subject’s life and career, placing him among the group of architects who had been written out of Chinese history because he did not stay after the Communist victory in 1949.

A second book covers the extraordinary landscape of northeast China formerly known as Manchuria, where Japan set about building an empire before the Second World War, embarking on some of the most ambitious urban plans on earth at that time. *Ultra-Modernism: Architecture and Modernity in Manchuria* (HKUP, 2017) charts this story and was the win-

ner of the [RIBA President’s Medal for Research](#) in 2017.

The final book, *Architecture and the Landscape of Modernity in China before 1949* (Routledge, 2017), is essentially Denison’s thesis, the result of his view that “after four years of study, the results should be made available to a public audience and not confined to a single library shelf.” By challenging conventional modernist historiography that has marginalised the experiences of the west’s other for much of the last century, the book proposes different ways of grappling with and comprehending the distinction and complexity of China’s experiences and its encounter with architectural modernity.

Denison is an independent architectural, urban, and cultural specialist and a Lecturer at [The Bartlett School of Architecture](#).

Further content:
📖 [Blog post](#) on which this feature is based
👤 [Edward Denison](#)

Studying Otherness in Puerto Rico

BSA alumnus awarded grant to study technology and queer spaces and practices



[Regner Ramos](#) works on the relationship between technology, Otherness—especially queerness—and space. “Queer and gay identities have historically been placeless, always left to appropriate the peripheries and spaces no one else wants,” Ramos says. “So it’s no wonder the Internet has become such an important space for experimentation and subjective performance for our community.”

After graduating from [The Bartlett School of Architecture](#) in 2017, Ramos became an Assistant Professor at the University of Puerto Rico’s (UPR) School of Architecture. He was recently awarded a research grant to study the relationship between digital technologies and queer spaces/practices in Puerto Rico.

“There’s an enormous gap in architectural and urban inquiry in relation to the island’s gay and queer histories,” Ramos explains, “so my main goal with my project is to create a cultural reading and spatial record of

these queer practices in different spaces (both physical and digital) so as to include them within architectural discourse.” Related to this, he is also building a network of Latin American researchers, performers, and artists who work on and with queerness, spaces, and technologies.

In addition, Ramos leads an experimental design and research studio at UPR called Bloc 04 that is examining how the island’s flora and fauna—non-human Others, which, despite being part of the built environment, are often disregarded in architectural design—have shaped national and cultural identity. By studying different organisms in Puerto Rico and understanding the cultural role they have played, the studio is using drawing, model-making, and design to analyse and critique the island’s condition of Otherhood.

Further content:
📖 [Interview](#) on which this feature is based
👤 [Regner Ramos](#)

3D laser scanning heritage

Exploring alternatives for reconstruction after earthquakes in Chile

Following the M7.8 Tarapacá Earthquake in northern Chile in 2005, [Bernadette Devilat](#) began thinking about the risk of disappearing heritage in the context of post-disaster emergency and reconstruction when processes tend to go unquestioned because of the necessity of recovering affected families' dwellings as quickly as possible.

Devilat turned these questions into a doctoral research project at [The Bartlett School of Architecture](#) and the [Development Planning Unit](#). She surveyed three heritage areas in Chile over different periods using 3D laser scanning complemented by photography and interviews. 3D laser scanning produces a representation of the state of a place that is precise down to the millimetre level, allowing people to virtually transport themselves there and walk around, observe the area, measure it, and study it.

Devilat spent three days on-site in each location and was able to capture nearly the entirety of each area, including

some interior spaces. This demonstrated the value of 3D laser scanning for post-disaster intervention and reconstruction processes, especially after earthquakes when comprehensive and accurate data can be both difficult and time-sensitive to obtain. She further explored the potential role of accurate records in heritage and its reconstruction, thus understanding the capacity of 3D laser technologies to be a virtual database for memory, preservation, demolition, intervention, and replica.

Devilat is the co-founder of Davilat Lanuza Architects which is based in London and working on projects in Chile, including projects involving 3D laser scanning. She also [lectures](#) on 3D laser scanning in the field of built heritage at The Bartlett School of Architecture.

 **Further content:**
👤 Bernadette Devilat

Modelling and conserving metadata



Danae Phaedra Pocobelli explores the state of research on the digital documentation of heritage buildings

A hot topic for architects, engineers, and anyone else involved in the digital documentation of heritage buildings, HBIM (heritage building information modelling) is the subject of Pocobelli's recently published paper "[BIM for heritage science: a review](#)," co-authored with Jan Boehm, Paul Bryan, James Still, and Josep Grau-Bové in *Heritage Science*. HBIM involves borrowing techniques from computer science, surveying practices, and architectural history to produce a digital copy of an existing building, creating a 3D model that contains specific information. This information, commonly known as "metadata," includes historical layers, archival photos, and more.

Pocobelli et al's review paper assesses the application of HBIM using practical case study references. In the course of reviewing the literature on HBIM, the authors identify metadata particular to heritage buildings and then evaluate how other researchers have analysed the metadata and used it to draw conclusions. Among the most noteworthy re-

sults is that environmental modelling and simulations, in addition to predictions of degradation, are largely absent in existing literature, despite that degradation and weathering are some of the most common issues in heritage buildings. The paper thus argues for the inclusion of heritage-specific information in the modelling process and the application of BIM to heritage buildings.

[Pocobelli](#) is PhD student at the [Institute for Sustainable Heritage](#), as part of the EPSRC funded [Science and Engineering in Arts Heritage and Archaeology \(SEAHA\)](#) doctoral training centre. Her doctoral research aims to fill gaps in metadata insertion through visual programming, thus enabling stakeholders to make informed decisions during maintenance planning for heritage buildings.

 **Further content:**
📄 Paper
👤 Danae Pocobelli

Towards unmaking dangerous places

Understanding fear in the context of violence: a fieldwork report from San Salvador

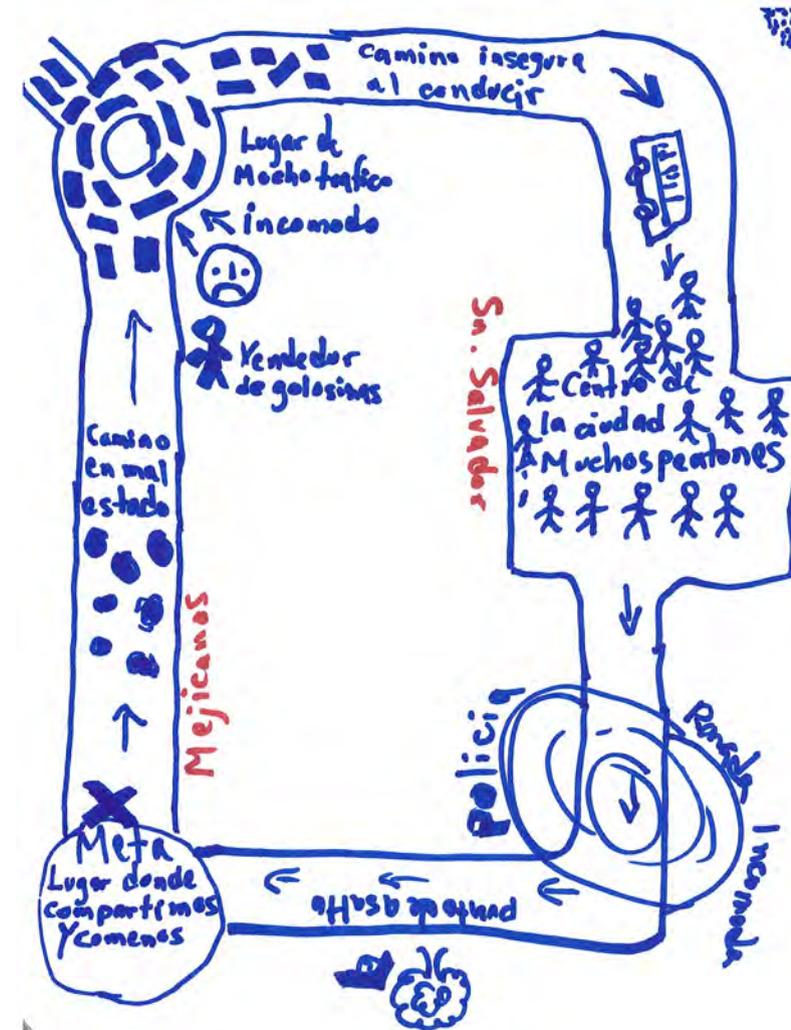
How are dangerous places made? How does fear take root somewhere and become a defining part of a place's identity? Ariana Markowitz's PhD research at the *Development Planning Unit* focuses on fear in the context of extreme violence where fear tends to 'disappear' behind well-established public and private discourses of violence and crime, even while being a driving force in social and political relations and urban development.

Through fieldwork in San Salvador, El Salvador, she seeks to disentangle these concepts so fear can be taken into account in design and policy; in essence, if dangerous places can be made, then perhaps they can also be unmade. As a corollary to this, Markowitz is also examining how social scientists can confront and learn from trauma experienced and witnessed in the course of undertaking fieldwork in a violent place.

The first part of her fieldwork was grounded in San Salvador's historic

city centre, currently the target of a major redevelopment initiative. Using in-depth interviews, Markowitz explored how the city centre has captured the public imagination and morphed into a focal point for danger. The interviews, complemented by archival and secondary research, revealed five groups that are critical to the way that residents of the capital tend to experience and understand fear: young people, the police, unlicensed street traders, bus drivers, and private security officers.

The second fieldwork component dealt with the lived experience of fear in a densely populated low- to middle-income area in Greater San Salvador. Markowitz convened focus group discussions with each of the groups mentioned above, using participatory visual and artistic methods—drawing, mapping, diagramming, and acting—to identify and calibrate fear by determining how it affects the relationship between the body and its surround-



ings. She additionally worked with youth and adult artists, public servants involved in municipal violence prevention, former prisoners, and people in treatment for substance abuse.

Markowitz has over a decade of experience working on and in places experiencing violence and precarity in the Americas, the Middle East, Africa, Asia, and Europe with specific projects on security sector reform, crime and design in social housing, cultural and economic development and conservation, and counterterrorism. She has an MSc from UCL in Building and

Urban Design in Development and a BA from McGill University in Political Science and Middle East Studies.

Further content:
Ariana Markowitz

End Notes

The Bartlett School of Architecture's *Moritz Behrens* recently had his research on a 'sentiment cocoon' reviewed for Media Architecture 2018. A multiple award winner, the 20-foot *in-stallation* seeks to collect and visualise the emotions of a building's occupants through the use of light. The project was created in collaboration with Konstantinos Mavromichalis, an MSc student in Adaptive Architecture and Computation.

Bridget Storrie, a PhD student at the *Institute for Global Prosperity*, delivered a keynote address on "Ore and Peace: Mining and the Extreme" at the EXTREME Conference, "Rethinking the Limits to Community, Architecture, and Urbanism," in Longyearbyen, Svalbard in January 2018.

With support from several UCL departments including the *Institute for Global Prosperity* and the *Development Planning Unit*, IGP PhD student Mara Torres Pinedo helped to coordinate the third *Mexico Summit* at UCL, "Human Migration in a Moving World."



"Sentiment Cocoon" Moritz Behrens and Konstantinos Mavromichalis

The RTPi shortlisted *Helen Pineo*, a PhD student at the *Institute for Environmental Design and Engineering*, for an Award for Research Excellence in the planning consultancy category. Her project, "Putting Residents' Needs at the Heart of Healthy Place-Making," used a participatory approach to identify and implement healthy planning policy strategies in Southwark in London.

Simon Addyman spoke at *The Bartlett School of Construction and Project Management* Doctoral Conference in September, "Reflecting on Transformational Projects in the Built Environment." The event was intended to enable thought leaders to exchange ideas and explore potential contributions to research on transformational projects. Addyman is a PhD student at CPM.

Tommaso Gabellini and *Simone Gasperin*, both students at the *Institute for Innovation and Public Purpose*, edited the recently published book *Economic Crisis and Economic Thought: Alternative Theoretical Perspectives on the Economic Crisis* (Taylor and Francis, 2018) alongside Alessio Moneta from the Institute of Economics at Sant'Anna School of Advanced Studies in Pisa.

Jun Rentschler, a PhD graduate of the *UCL Institute for Sustainable Resources (ISR)* and now Economist at The World Bank, has published a new book, *Fossil Fuel Subsidy Reforms* based on his PhD research. [Read more...](#)

Virginia Gori of the *UCL Energy Institute* was awarded a prestigious EPSRC Doctoral Prize Fellowship. [Read more...](#)

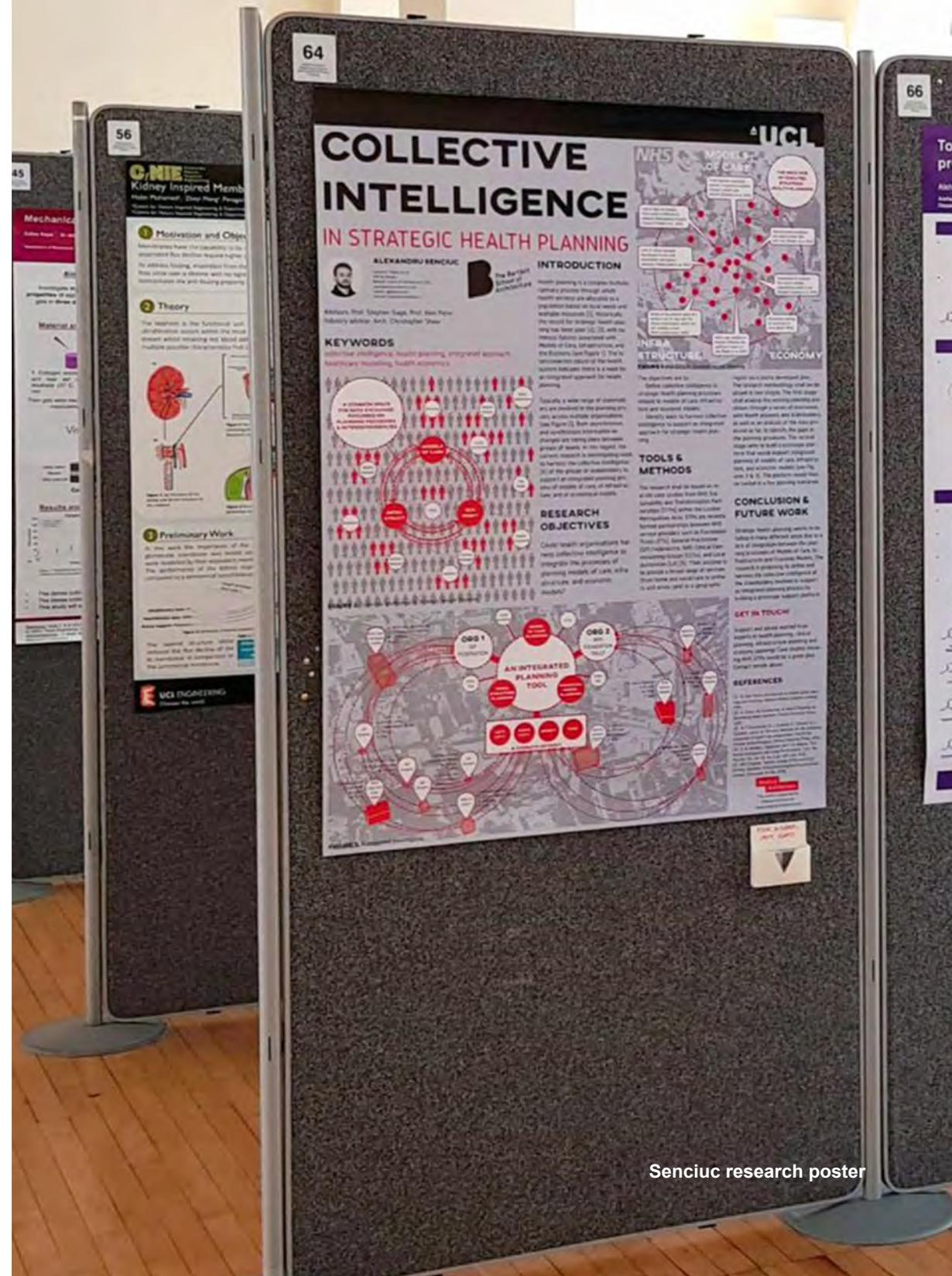
Doctoral students *Yun Liu* and Dz-hordzhio Naldzhiev of the SEAHA Centre for Doctoral Training chaired the SEAHA conference of 2018. [Read more...](#)

Bartlett School of Architecture doctoral student *Nicola Antaki* has won the 2018 Provost's Public Engagement Award in the student category. [Read more...](#)

Kerry Bobbins, a DPU doctoral student, was awarded a Royal Geographic Society Dudley Stamp Memorial Award. [Read more...](#)

Alexandru Senciuc of the Bartlett School of Architecture won the UCL Doctoral School Research Poster Competition (Built Environment, Engineering Sciences, Mathematical & Physical Sciences) with his poster on "Collective Intelligence in Strategic Health Planning", while Mr Po Nien Chen of the Bartlett School of Architecture won a runner-up prize for his poster on "The Impact of a New Public Transport System on Neighbourhoods Surrounding the Stations: The Case of the Jubilee Line Extension and Dockland Light Railway in London" [Read more...](#)

The Bartlett's Doctoral alumni hold influential positions in leading universities and research organisations around the world. In a series of conversations with alumni, we celebrate their achievements, share their reminiscences and hear their tips for current Bartlett PhD students. [Read more...](#)



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