

PhD RESEARCH PROJECTS 2024



MPHIL/PHD ARCHITECTURAL DESIGN
AND MPHIL/PHD ARCHITECTURAL AND
URBAN HISTORY & THEORY

THE BARTLETT SCHOOL
OF ARCHITECTURE, UCL

PhD Research Projects

2024



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Preface

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Dr Stylianos Giamarelos and Dr Stamatis Zografos

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PhD Research Projects 2024 is the eighteenth annual conference and exhibition related to doctoral research in the MPhil/PhD Architectural Design and MPhil/ PhD Architectural and Urban History & Theory at The Bartlett School of Architecture, UCL. The event is open to the public and involves presentations by students undertaking these programmes. This year, we also have four contributions by students from the Architectural Space & Computation, Architecture & Digital Theory, The Bartlett Development Planning Unit and The Bartlett School of Planning MPhil/PhD programmes.

Leading to a PhD in Architecture, The Bartlett School of Architecture's doctoral programmes encourage originality and creativity. Over 80 students are currently enrolled on the MPhil/PhD Architectural Design and MPhil/ PhD Architectural and Urban History & Theory programmes, and the range of research subjects undertaken is broad. Each annual PhD conference and exhibition focuses on a smaller selection of presentations from students who are developing or concluding their research. The purpose of the conference

and exhibition is to encourage productive discussions between presenters, exhibitors, staff, students, critics and the audience.

Organised and curated by Dr Stylianos Giamarelos and Dr Stamatis Zografos, PhD Research Projects 2024 has five invited critics: Professor Mabel O. Wilson, Columbia University Graduate School of Architecture, Planning and Preservation; Professor Camillo Boano, The Bartlett Development Planning Unit; Professor Eva Branscome, The Bartlett School of Architecture; Dr Marina Lathouri, the Architectural Association; and Dr Ruth Bernatek, Warwick University.

Presenting this year are: Vasilis Aronidis, Melissa Barrientos, Yichuan Chen, Kirti Durelle, Zahira El-Nazer, Matan Flum, Rían Kearney, Mike Kwok, Patricia Rodrigues Ferreira da Silva, Elin Söderberg, Anna Talvi and Jonathan Tyrrell.

This year's conference and exhibition is dedicated to the memory of Professor Jonathan Hill (1958–2023). It is a modest tribute to the lasting legacy of the founding, long-standing Director of the MPhil/PhD Architectural Design programme.

Introduction

Patricia Rodrigues Ferreira da Silva and Jonathan Tyrrell

A Legacy of Possibility

The untimely death of Professor Jonathan Hill in late 2023 has prompted us to reflect on the complex nature of legacy – how it relates to the building of a life, and the building of an institution. What has become clear in the ensuing months, as the School community struggles to come to terms with this loss, is the profound asymmetry between the quietness of Jonathan’s demeanour, and the magnitude of his impact. His absence is felt widely and deeply. Here, as a modest opening, we reflect briefly on what this means for the PhD programme.

Jonathan’s contribution to The Bartlett School of Architecture is immeasurable, but his legacy is a material fact for doctoral students. As the first graduate of the Architectural Design PhD programme, and later having been its Director for over 20 years, Jonathan was in many ways the embodiment of the programme. And yet he always emphasised how closely linked the Architectural Design and Architectural History and Theory programmes were, enacting this in a series of jointly organised seminars and events, such as the Research Conversations and the annual PhD Conference. Moreover, he was always a supporter of wider collaboration within The Bartlett and across departments at

UCL. The inclusion of work in this year’s catalogue from students in the Architecture and Digital Theory programme and the Bartlett Development Planning Unit is an ongoing reflection of this.

The immense variety of topics, methodologies, historical periods and cultural contexts assembled in this catalogue also illustrates the interdisciplinarity that Jonathan strongly advocated for in his ‘Design Research: The Next 500 Years’ article (2022), presented in this publication in an abbreviated version. In the text, which chronicles the origins of the PhD in Architectural Design programme, he argues that by opening architecture up to dialogue with other disciplines and, above all, by incorporating other methods and media, the student is confronted with important questions of authorship and positionality in relation to the research process and architectural practice itself. Beyond simply offering a path to intellectual enrichment, interdisciplinarity becomes an incisive tool for critical thinking precisely through the friction generated by asking questions in a different context.

A commitment to the plurality of ideas and an ardent resistance to defining any one model of research is not restricted to the doctoral level; it can be clearly

observed across different programmes at The Bartlett, at the undergraduate and master's levels. Much has changed in architectural education in the 30 years since the programme's inception, and important, necessary work is being done to reconcile a complex institutional past. In meeting these challenges, it may still be worth considering that what allowed for such a radical pedagogical experiment – a PhD by design – to flourish in the first place was a culture of possibility.

In an earlier article, written for *AA Files* in 2012, Jonathan described the architect as 'part-novelist, part-historian', someone who reinvents the present in dialogical relation to the facts and fictions of the past.¹ As an author-builder of that which is 'novel', the architect is therefore engaged not only in the construction of a cultural and historical context external to the self, but a context *of* the self; a type of fiction that is not wholly separable from autobiography. In research this relates to questions of positionality – a critical awareness of the *subjectivity* of authorship in relation to the *subject* of knowledge. And while this is linked to a larger reckoning of positionality in academic research, it is felt quite urgently at the doctoral level where, regardless of the research stream or chosen methodology,

the construction of a PhD is, for many, also a construction of the self. Positionality then might be seen as its own form of reflexive, adaptable, legacy-making, as it remains always open to reinvention. From this perspective, it is perhaps appropriate that the examples of PhD journeys gathered in Jonathan's following text refer not only to the dissertations themselves, but also to the lives and trajectories that were authored in the process.

Legacies, in their best form, should challenge knowledge, not subdue, or arrest it. They are passed on but should not be passively received or accepted. History, likewise, should not come to us quietly; it should surprise us ('the shock of the old' as Jonathan was fond of saying), move us, and provoke us to be better. If contact with the past transforms the present (and therefore the future), and histories are contained as much in people as in the physical artefacts they produce or in the words they craft, then Jonathan Hill's legacy in the PhD programme endures in the lives of the many students whose ongoing histories he has helped to shape, and the culture of possibility he nurtured.

1. Hill, Jonathan. "The History Man." *AA Files*, no. 65 (2012): 3–18. <http://www.jstor.org/stable/41762320>.

Towards an Architectural Design Doctorate and Beyond

At The Bartlett School of Architecture, University College London (UCL), I direct the Architectural Design doctoral programme, which was founded in the mid-1990s. The idea to start this programme began a few years earlier, and we were fortunate that both The Bartlett and UCL were very supportive and understood its value and potential. I was already full time at The Bartlett, running the professional Bachelor of Science (BSc) programme and a Master's degree design studio. The Architectural Design PhD began with the Director of the School, Professor Philip Tabor, as our principal supervisor, and two colleagues, Yeoryia Manolopoulou and Penelope Haralambidou, and I as the first students (Figs 1, 2, 3). We thought that it was appropriate and ethical not to publicise the programme until one of us had finished it. I was the guinea pig. When I completed the PhD in 2000, I began to direct the programme, which we then advertised to new students.

The first PhD in creative writing in the United Kingdom was established in 1987 at the University of East Anglia. There have been a number of art and practice-based PhD programmes at other British universities, but we were the first

architecture programme of this kind in the UK, and the first in the world to have a graduating student, as far as we are aware. Some art doctoral programmes define themselves as different from the traditional PhD. But we always emphasise that ours is a PhD within the mould of what you expect a PhD to be in Britain. The only significant difference is that while a familiar PhD is purely written, the Architectural Design PhD combines a project and a text that share a research subject and have a productive relationship.

We consciously named it the Architectural Design programme, and not the Design and Theory programme, because we didn't want people to assume that theory was just text-based. We see drawing and building as key elements of the process of developing theories and practices of architecture. In the doctoral thesis, there is always an academic text of around 60,000 words, but the relationship between project and text depends on the research subject. The design project can be filmed, sculpted, built or drawn, or employ any methods and media that are interesting and appropriate to the subject. Consequently, Architectural Design PhD students often create a thesis that integrates a number of ways of working.

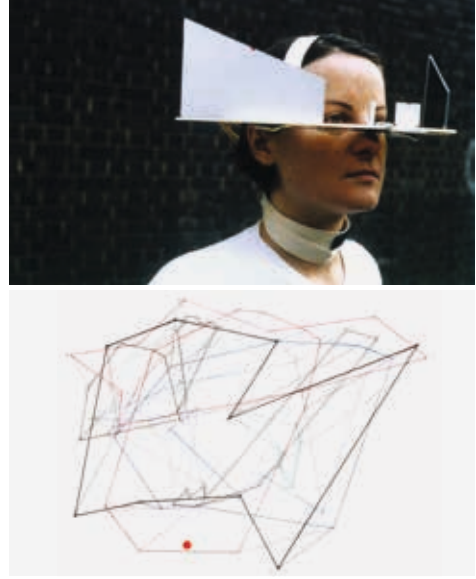
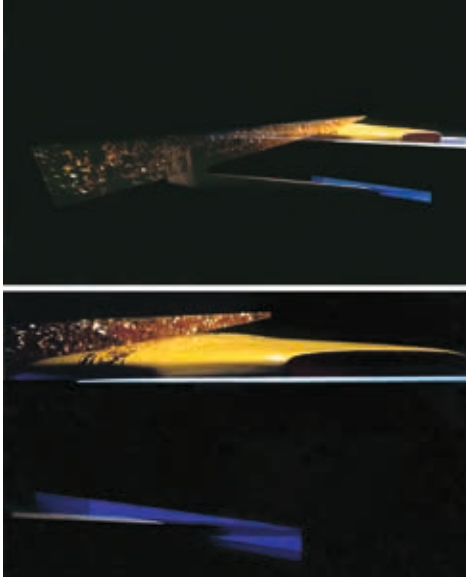


Fig. 1 (top left) Jonathan Hill, *Creative Users, Illegal Architects*, PhD, 2000, published as *Actions of Architecture*, 2003. Institute of Illegal Architects. Photograph, Edward Woodman; model, Bradley Starkey.

Fig. 2 (top right) Yeoryia Manolopoulou, *Drawing on Chance: Indeterminacy, Perception and Design*, PhD, 2003, published as *Architectures of Chance*, 2013. Viewing Instrument I (top) questions frontal and fixed models of architectural representation and explores the surrounding nature of spatial perception by 'pivoting' space from the back to the front of a moving observer. Photograph, Anthony Boulanger; (bottom) Using 'measurable chance' to mark, multiply and connect 9×9 points in a drawing experiment that tries out Duchamp's concept of 'demultiplied vision'.

Fig. 3 (bottom) Penelope Haralambidou, *The Blossoming of Perspective: An Investigation of Spatial Representation*, PhD, 2003, published as *Marcel Duchamp and the Architecture of Desire*, 2013. 'Illuminated Scribism', plates 19 (top) and 16 (bottom).

If you produce a singular piece of work with one type of output, you may tend to have a singular idea of authorship. But if you work between media, as you do with an Architectural Design PhD, you need to realise and conceptualise your place within this process.

Unlike a professional programme focused on the education of architects, a doctoral programme can have a broader conception of architecture. There are currently 50 to 60 students in the Architectural Design PhD programme. About two-thirds of them have an architectural background; there has been a medical practitioner, a site-specific poet, as well as artists, geographers, historians and urbanists.

UCL is a large, multi-disciplinary university. The principal doctoral

supervisor is within The Bartlett School of Architecture, while the subsidiary supervisor can be anywhere in UCL, whether from anthropology, computer science, medical science, or fine art, for example. Our intention is for doctoral subjects and supervisions to be as broad as the discipline of architecture and to connect research to related disciplines to foster productive and rewarding collaborations. Within The Bartlett, the Architectural Design PhD programme has a longstanding, fruitful association with the Architectural History and Theory PhD programme. Every year we collectively organise a series of regular seminars and events, and an annual conference and exhibition with international critics, so that students can present work-in-progress.

Beyond the PhD

Studying the history of practice as well as the history of architecture allows us to appreciate that architecture is not made by architects alone. The contemporary relevance of interdisciplinary research, which occurs within, between and across disciplines, indicates that the profession is but one model of practice and implies that a combination of past and future models may be more rewarding. In this sense, the architectural design doctorate is a means to consider and develop alternative models of architectural practice and discourse. I will now briefly discuss the work of some graduates of The Bartlett Architectural Design programme, to give a glimpse of the range of subjects and methods employed, their debt to the 500-year history of the architectural book and attempts to extend this history.

A UCL doctoral thesis can be a maximum of 100,000 words and this is also the limit for the Architectural Design doctoral thesis



Fig. 4 Alessandro Ayuso, *Body Agents: Deploying a New Figure for Design*, PhD, 2015, published as *Experiments with Body Agent Architecture*, 2022. View of Kneeling Window drawing in progress.

because it is just as possible to design through words as it is to design through drawings. One example is the doctoral thesis by Kristen Kreider, a site-specific poet whose research was supervised by The Bartlett School of Architecture and Slade School of Fine Art at UCL.¹ All of her thesis consists of words, but they are different types of words. Some are words that you might associate with conceptual art, concrete poetry or critical analysis, while others combine these practices. Kristen was until recently a Professor at Goldsmiths College, University of London, where she directed a practice-based art PhD programme. She is now a Professor and the Head of School at the Ruskin School of Fine Art, University of Oxford.

Functionalism remains a default position for many architects, but it can be a limiting way to understand architecture. Of course, we sometimes want specificity of function. The most obvious example, you might assume, is a hospital. Hina Lad is an architect who has years of experience designing medical facilities. Her PhD focused on the redesign of the operating theatre, which has not been thoroughly addressed for decades.² Instead, more and more new equipment has been squeezed into a room that was conceived long ago without recognition of the changing needs of staff and patients. Even this spatial type, which should be up-to-date and functional, is actually outdated. UCL has a well-known medical school and when Hina presented her research some of the attendees were surgeons. Acknowledging that conceptions of function need to be inclusive not universal, Hina emphasised that the experience of the operating theatre depended on each person's role, which she considered from the viewpoint of the patient, the nurses, the doctors, and the anaesthetists. At first, the architects in the seminar thought that this was rather obvious, until we saw the surgeons'

fascination and heard them remark: 'No, we never think about the patient'. It was an eye opener for us all.

As the programme has grown, some Bartlett students have tried to develop a number of parallel 'voices' in their writing and drawing. For example, there might be, within the same thesis, a deliberately lyrical text in conversation with another that is more analytical. The theme of Alessandro Ayuso's PhD is the diminished role of the human body in contemporary architectural representation and design.³ Although his work combines the analogue and digital, Alessandro particularly associates this problem with present-day digital representations that reduce the body to a cipher or an abstraction (**Fig. 4**). To make the argument for richly nuanced bodily representations within drawn and built architectures he studied the Baroque and conceived a little putto, a 500-year-old cherub that originated in one of Michelangelo's designs. As the cherub had lived through five centuries, it appeared in various historical moments in Alessandro's research, becoming another critical and creative voice within the thesis. The major voice in the thesis was clearly Alessandro, and the putto would interject and question, telling him what he had missed or misunderstood. This narrative device allowed Alessandro to consider multiple authors and multiple readers. Throughout his research, I assumed that the putto was another Alessandro, but after his doctorate was completed, he informed me that it was also a hybrid, incorporating a lot of him and bits of me and a mutual friend, the Florentine architect Franco Pisani.

Many of the students deal with socially engaged work in actual sites, which makes them particularly conscious of architectural authorship, using the academic context to reflect on their roles as practitioners. Before she applied to the PhD programme, Nerea Amorós Elorduy worked as an architect in



Fig. 5 Nerea Amorós Elorduy, *East African Refugee Camps as Learning Assemblages: The Built Environment as an Educational Resource for Encamped Young Children in the East African Rift*, PhD, 2018, published as *Architecture as a Way of Seeing and Learning*, 2021. (top) Inception workshop in Kiziba refugee camp with community mobilisers, ECD caregivers, mother-leaders, NGO representatives and architecture students engaged in a discussion about the common and open spaces currently used as playgrounds by young children in the camp; (bottom) mural-making process on the first and second walls of Kiziba's quarter four maternelle.

Rwanda and was involved in establishing the first architecture school there. Her thesis conceives the built environment as an educational resource and marginalised voices as key to more effective, situated knowledge production, seeking to improve the learning processes of pre-school children who are born and raised in refugee camps in East Africa (Fig. 5).⁴

UCL is a multi-disciplinary university, but it does not have a music school. David Buck, a landscape architect who completed a PhD on the musical qualities of landscape (Fig. 6), initiated our collaboration with

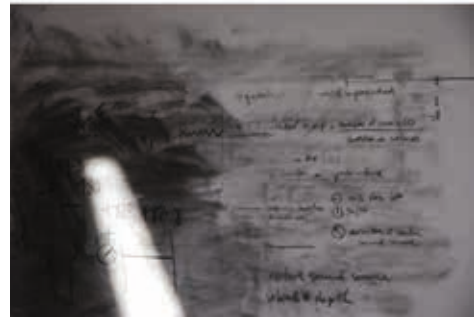


Fig. 6 David Buck, *In an Open Field: A Musicology for Landscape*, PhD, 2015, published as *A Musicology for Landscape*, 2017. Extracts 1 and 2 from 655: a descriptive notation for an auditory landscape (charcoal on paper, 112.6 cm × 160 cm).

the Royal Academy of Music (RAM). We soon discovered that our discussions with people at the Royal Academy are enjoyable and stimulating because, rather like architects, they have an idea of notation and composition; they have an idea of space in which a work is performed, and they have an idea of reception as creative interpretation. They don't use the same terms as us, but their questions and issues are quite similar to ours, which makes it a very fruitful collaboration. Consequently, we now usually have a few students doing PhDs that combine architecture and music.

David was aware that various architects have connected design to musical notation in the last 40 years. In discussion with Professor Neil Heyde at the RAM he realised that these architects have referred to rather traditional notions of music

notation, not more innovative examples. Studying contemporary music composition and notation allowed David to reconsider the history of landscape design. Wary of the assumption that landscape is primarily visual, he came to recognise that the eighteenth-century picturesque is somewhat misunderstood. Researching early and mid-eighteenth-century texts and gardens, he discovered that they included many references to musical and aural qualities in the conception and experience of landscape, which David exploited to indicate an alternative landscape history and suggest a new influence on contemporary landscape design. Looking at his subject through another discipline's eyes enabled David to expand his own authorship and to publish a book based on his doctoral research.⁵



Fig. 7 Jan Kattein, *The Architecture Chronicle: Diary of an Architectural Practice*, PhD, 2008, published as a book of the same title in 2014. Zero Emission Luminaire no. 03 at Woburn Square Studios, London.

A number of graduates have undertaken the PhD because they want to develop a working life that combines academia and practice. Questioning aspects of conventional architectural practice and searching for an alternative (**Fig. 7**), Jan Kattein entitled his thesis 'The Architecture Chronicle: Diary of an Architectural Practice'.⁶ As a part of his thesis, he won a design commission in Blackpool, a seaside resort in the north of England known for its observation tower and brightly illuminated beachfront. As his site, Jan chose an ordinary street of nineteenth-century terraced houses, a mile from the seafront. Through his subtle and persuasive consultation, the residents agreed that their streetlights would be turned off for a week during the Blackpool Illuminations, the annual festival of electric light. Emphasising a keenly environmental agenda, Jan replaced the streetlights with his luminaires made of reclaimed and discarded elements. To generate light, the residents fed their new streetlights with organic household waste, which generated methane and thus illumination. After his doctorate, Jan established an innovative and successful practice. First known for its transformation of a suburban high street to coincide with the 2012 London Olympics, it was subsequently commissioned to develop similar urban projects by numerous other London boroughs, combining creativity and community collaboration.

Marcos Cruz was an early graduate of the Architectural Design doctoral programme. In his thesis, he argues that the familiar term, the *skin* of a building, is an inappropriate architectural analogy because it just refers to the external layer. Instead, he proposes a more bodily metaphor, the flesh of architecture.⁷ Some years later he became Director of The Bartlett School of Architecture and a professor. More recently, he founded the Bio-Integrated Design Master's degree and also supervises PhDs



Fig. 8 Natalia Romik, *(Post)-Jewish Architecture of Memory within Former Eastern European Shtetls*, PhD, 2018, to be published as a book in 2024. (top) Public programme in the evening in Józefów Biłgorajski; (bottom) The Nomadic Shtetl Archive in the market square in Kock.



Fig. 9 Polly Gould, *No More Elsewhere: Antarctica through the Archive of the Edward Wilson (1872–1912) Watercolours*, PhD, 2016, published as *Antarctica, Art and Archive*, 2020. Lantern Landscape, 2013 (tulip wood, wax, paint, magic lantern projector), installed at Danielle Arnaud London, 2013.

on this subject, both of which he undertakes in collaboration with the Department of Bio-Chemical Engineering at UCL.

One of the most rewarding aspects of the doctoral programme has been to see its contribution to staff career development. Graduates include six academic staff who are now professors at The Bartlett School of Architecture, who have undertaken valuable roles such as Director of School, Director of Research, Director of Communications, and Directors of the BSc and Master’s degree professional programmes. Other graduates include professors in Austria, Denmark, South Africa, the UK and the United States, award-winning architectural practitioners, a director of one of the world’s most influential art galleries, and a curator at a national art museum.

Keen to ensure that the best design research is published and widely disseminated, Murray Fraser, Jane Rendell and I founded the ‘Design Research in Architecture’ book series initially at Ashgate and then Routledge. Now Murray, Lesley Lokko and I are series editors at UCL Press, Britain’s first fully open access university publisher, which enables books to be downloaded for free and printed on demand. This innovative book series – still the only one of its kind – highlights architectural design research from around the globe, drawing on a range of exemplar positions between practice and academia. The first book was published in 2013 and fourteen titles have now been published, with more to appear soon. Some, but not all, of the books have developed from design

PhDs at UCL and other universities. There is no exact formula for an architectural design doctorate, and it would be prohibitive and restrictive to advance one. A doctoral programme should grow organically from the strengths and skills of the host institution, benefitting the internal dynamic of the school and the external dialogue of design research (Figs 8, 9).

This text is an abbreviated version of Jonathan Hill, 'Design Research: The Next 500 Years', *AJAR* 7.1 (2022) DOI: 10.5334/ajar.287

Notes:

1. Kreider K. *Toward a Material Poetics: Sign, Subject, Site*. PhD thesis, UCL; 2008.
2. Lad H. *Surgical Environments and Medical Technologies*. PhD thesis, UCL; 2019.
3. Ayuso A. *Experiments with Body Agent Architecture: The 586-year-old Spiritello in Il Regno Digitale*. UCL Press; 2022.
4. Amorós Elorduy N. *Architecture as a Way of Seeing and Learning: The Built Environment as an Added Educator in East African Refugee Camps*. UCL Press; 2021.
5. Buck DN. *A Musicology for Landscape*. Routledge; 2017.
6. Kattejn J. *The Architecture Chronicle: Diary of an Architectural Practice*. Ashgate; 2014.
7. Cruz M. *The Inhabitable Flesh of Architecture*. Ashgate; 2013.

Conference Participants

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Vasilis Aronidis

The Bartlett School of Architecture

Supervisors: Professor Penelope Haralambidou · Emeritus Professor Philip Steadman

Musical Event as ‘Synecdoche’ of Interrelated Sound and Spatial Parameters: Composing Sound and Space in Harlem in the 1920s–1930s

Two contrasting musical traditions from the nineteenth century defined the music and architecture for musical performance in New York City during the 1920s–1930s. From the Sunday ‘Slave Dances’ held at Congo Square (New Orleans, 1820s) to the Sunday ‘Celebrity Nights’ at the Cotton Club in Harlem (New York, 1920s), and from the notion of ‘*Gesamtkunstwerk*’ in Wagner’s operas (1840s) to the ‘New Stagecraft Movement’ as practised by Joseph Urban in New York’s musicals and operas (1920s), this thesis examines the interdependence between music and architecture regarding the evolution of architectural thought and musical composition.

The primary objective is to define a conceptual basis for interpreting the built environment in its historical dimension as a receptor and co-formulator of the musical object. To this end, the project sets a framework around the New York musical scene in the given period – considering the Metropolitan operas, Broadway shows, the ‘Midnight Frolics’ and the Harlem Jazz Club shows – to investigate how the interactions between spatial and musical parameters could ‘synecdochically’ create typologies for music events. In examining the jazz performances during the Harlem

Renaissance and analysing how spatial configurations in African American music events are linked to the evolution of architecture for musical performances, the research outlines new strategies for composition and design through the analysis of data, structures and concepts applied to both spatial and musical principles of reasoning.

The interdisciplinary character of this thesis determines its conceptual and theoretical framework, in which the concept of ‘synecdoche’ is used as a methodological approach, applied in the analyses of sound recordings, architects’ journals, eyewitness accounts, historical and musicological studies, musicians’ autobiographies, and fictional writings.

Top: E. W. Kemble (Edward Windsor), *The Bamboula*, 1886 (Courtesy: NYPL, catalog ID b12793219)

Bottom: Elmer Simms, *A Night-Club Map of Harlem*, 1933. New York, N.Y.: Dell Publishing Company (Courtesy: Library of Congress Geography and Map Division Washington, D.C. 20540-4650 USA dcu)



THE BARRICADE.

ENTERTAINMENT



1. The map is a reproduction of the original map published in the New York Evening Post on August 1, 1933. The original map was a satirical illustration of the Harlem nightlife scene at the time.

2. The map is a reproduction of the original map published in the New York Evening Post on August 1, 1933. The original map was a satirical illustration of the Harlem nightlife scene at the time.

Melissa Barrientos

The Bartlett School of Planning and The Bartlett Centre for Advanced Spatial Analysis

Supervisors: Professor Stephen Marshall · Professor Elsa Arcaute

Uncovering the Dislocated Structure behind Peri-urban Areas in Traditional Cities

There is a persistent sense that modern urban development lacks some of the intricate functional complexity of traditional urbanism. While new urbanisation processes tend to adapt and develop new elements and functionalities, becoming more complex over time, many examples of recent urban expansions seem to remain differentiated for longer, in contrast with the traditional city. This condition can be clearly perceived in sprawled and suburban environments, and yet the approach to the problem keeps focusing on issues of density or an alleged spatial segregation, while potential structural discrepancies receive scant attention.

This research proposes the concept of *peri-urban dislocation* as a distinctive

urban phenomenon associated with the latent structural variation behind the peri-urban difference observed in rapidly expanding cities. This concept offers new perspectives on the debate over urban growth, while looking for potential impacts on traditional urban systems. Methods used in complexity science, such as percolation analysis, are deployed in the investigation of this phenomenon in Valdivia, a city in Southern Chile which is examined as a case study. The results uncover a dislocation of the peri-urban development in the town at structural level, as a response to changes in urban planning directed at patterns of mass-produced organisation.

Street intersections in Valdivia, Los Rios Region, Chile (Author: Melissa Barrientos, 2023)



Streets Intersections in Valdivia, Los Rios Region, Chile.

Yichuan Chen

The Bartlett School of Architecture

Supervisors: Professor Edward Denison · Oliver Wilton

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The Power of Cement: Concrete and the Building of Chinese Modernity in the Twentieth Century

Over half of the world's cement is currently produced and consumed in China, and yet little research exists on how these foreign materials, namely cement and concrete, became so vital to Chinese modernity. The study seeks to fill this gap by investigating the extraordinary trajectory of concrete in China, its entanglement with China's socio-political experiences, and its planetary consequences.

China's cement and concrete industries, established in the late nineteenth century, expanded rapidly during the height of nationalism in the 1920s–1930s. By the mid-twentieth century, a shift from urban to rural construction activities accelerated the dissemination of concrete in China. As a result, 60% of the country's cement was produced and used in rural areas by 1977. Two vital, but overlooked, factors in this rapid proliferation were the depletion of wood – the staple material for construction in China for millennia – and the dissemination of modern irrigation systems, in which concrete played the intermediate role of transforming fossil fuels and hydropower into food. As such, it also contributed to China's phenomenal baby boom in the 1960s–1970s.

Consequently, it is difficult to form a detailed picture of the Chinese

'concretescape' without understanding the deep transformations that concrete brought to twentieth-century rural China. Despite its profound impact, not only considering the Chinese context but on a global scale, the history of concrete in China has largely escaped scholarly attention.

This study employs theories from environmental history and science and technology studies (STS), in addition to interdisciplinary historiographical methods, to examine the dissemination of concrete in China, by analysing architectural and infrastructural projects such as bridges, water control facilities, and housing developments. In doing so, the thesis discusses the profound technological, ecological and cultural changes triggered by the large-scale use of concrete in twentieth-century China, and its planetary consequences in the twenty-first century.

Interior of Anzhuang Water Management Station in Peixian County (built in 1979–1980), which incorporates electric pumps and a sluice and provides for farmland irrigation in the local area (Photograph: Yichuan Chen, 2023)



Kirti Durelle

The Bartlett School of Architecture

Supervisors: Dr Tania Sengupta · Professor Tim Waterman

On Landscape and Dialectics

Across landscape studies, definitions of ‘landscape’ oscillate between two poles. Landscape is either an external phenomenon (a real portion of the earth’s surface studied empirically), or the cultural representation of that phenomenon (an image, built on canvas or in space, implying a particular way of seeing). According to John Wylie, the debate echoes the division between ‘base’ and ‘superstructure’ in the Marxist historical materialist model.

This paper contends that although a materialist tradition exists within landscape studies, one that aligns with Wylie’s observation, it falls short of truly embracing historical materialist principles – chiefly, dialectical materialism – thereby remaining confined to dialogical frameworks. In advocating for the integration of dialectics into landscape studies, the research seeks an

analytical framework capable of addressing historical transformations of society and landscape.

This perspective offers the methodology required for studying the colonisation of the Indian Ocean Island of Bourbon by France in the early eighteenth century. In a transitional moment between late feudalism and early capitalism, a novel colonial society based on slave labour was created on the hitherto uninhabited island, which underwent material enhancements to establish a productive plantation landscape. The paper argues that these processes of social and landscape change cannot be adequately interpreted by theories of new cultural geography, or the cultural and spatial turns more generally, which are more concerned with the re-production of social and spatial relations than their genuine emergence.

Plan du quartier de St. Paul en l’île de Bourbon, levé & dessiné par Est. Estienne de Champion, c.1710
(Source: gallica.bnf.fr / Bibliothèque nationale de France)



Zahira El-Nazer

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Architecture and Complexity: Re-thinking the *Casbah* in Computational Urban Design

In recent decades, architectural discourse has seen a resurgence in terminology associated with Complexity science. Concepts rooted in cybernetics, such as ‘self-organisation’, have been re-employed to rationalise the evolution of cities through biological patterns underpinned by mathematics and facilitated by computer-based tools. The discursive use of this terminology is amplified by the application of design methods that employ algorithmic processes to simulate non-modern cities in North Africa like Fes, better known as *Casbah*.

The contemporary rekindled interest in cities such as Fes points to a forgotten but seminal chapter in the discursive formation of the *Casbah* in modernism. During this period, as the research postulates, a distinct quest for complexity emerged in response to the prevailing rational ideologies of the modernist city. Seeking a ‘new and shuffled order’, Team 10 challenged the compartmentalised subdivision of the modernist city by drawing inspiration from the disordered urban form of the *Casbah*.

Scant research has been conducted on the overlap between earlier scientific concepts of complexity and modernist post-war theories in urbanism. By drawing

on concepts from Team 10, such as the *anonymous collective*, this study postulates that complexity has been an evolving inquiry in Western architectural theory, with a significant *turn* occurring after World War II. It situates the intellectual roots of this *turn* in Warren Weaver’s text on *Science and Complexity*, which marked a shift from reductive to non-reductive scientific methodologies. The study then examines a genealogy of complexity in Western architecture, centring the *Casbah* as a new source of knowledge that manifests the significance of order and disorder in urban formation.

The research finally proposes an elucidated self-organisation model underlying bottom-up micro decisions. Rereading the *Casbah* formation through legal aesthetics and collective forms of knowledge summons a move beyond the formal to social and political frameworks to redefine complexity in current architectural epistemologies.

Walls of Fes (Photograph: Zahira El-Nazer, 2019)



Matan Flum

The Bartlett Development Planning Unit

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Historiography of National Planning and the Racialised Dispersion of the Israeli *Shikun*

This study critically examines the Israeli housing block, or *shikun*, in relation to the execution of the first masterplan in Israel's history, the 'Sharon Plan'. It argues that the discourse justifying the dispersal of Middle Eastern (*Mizrabi*) Jews promotes the racialisation of Israel's planning historiography of the 1950s. Such justification provides planning, cultural, moral and economic advantages to the dispersion of *Mizrabi* Jews, while also setting in motion de-Arabisation as a project of whiteness.

Subsequently, the research aims to discuss Israeli whiteness through the analysis of racialised relations between the Population Dispersion Policy and planning historiography, as presented in historical

and cultural representations. On a larger theoretical framework, the study suggests reinvestigating how spatial design racialises national planning historiographies through discursive, cultural and architectural means.

The research adopts the Cultural Approach to Critical Discourse Analysis as methodology, which is applied to the *shikun* case study through the careful examination of: a corpus formed by the masterplan; Arie Sharon's lectures and articles collected at the Azrieli Architectural Archive of Tel-Aviv Art Museum; and the catalogues of three planning and architecture exhibitions. In so doing, the study aims to identify shared themes within the historical planning discourse.

Shikunim in Qiryat Ono (Photographs: Matan Flum, 2023)



Rían Kearney

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Graphite Gay Bars: The Eliciting Potential of Drawing

Photo elicitation, the use of visual imagery to elicit comment, is a tool steadily employed in oral historical research. However, with many photographs of historical LGBTQ+ venues either lacking or buried in private archives, whose histories are rendered untold?

Working with those who created and used Birmingham's historical LGBTQ+ venues, this research employs participatory drawing to co-produce an archive of now-demolished venues, including bars, clubs and community centres, from the 1960s to the 1980s, a period bracketed by liberation efforts and the ongoing AIDS epidemic (Paley, 2022).

In this paper, I argue that participatory drawing produces diagrams through which spatial characteristics are used to expand on personal and collective experience: a bar entryway and descriptions of struggles for women to gain entry; a club with adjoining hotel rooms where those who were in the closet could get dressed on-site, forgoing the need to navigate public space. Reworking a formal tool of architectural communication, these informal drawings help to trace a multi-layered history of LGBTQ+ venues and how they are used and remembered in shared but conflicting ways.

Five Days of Fun at The Grosvenor House Hotel,
c. 1983 (Photograph: Ian Morrall)



Mike Kwok

The Bartlett School of Architecture

Supervisors: Professor Sophia Psarra · Dr Luke Pearson

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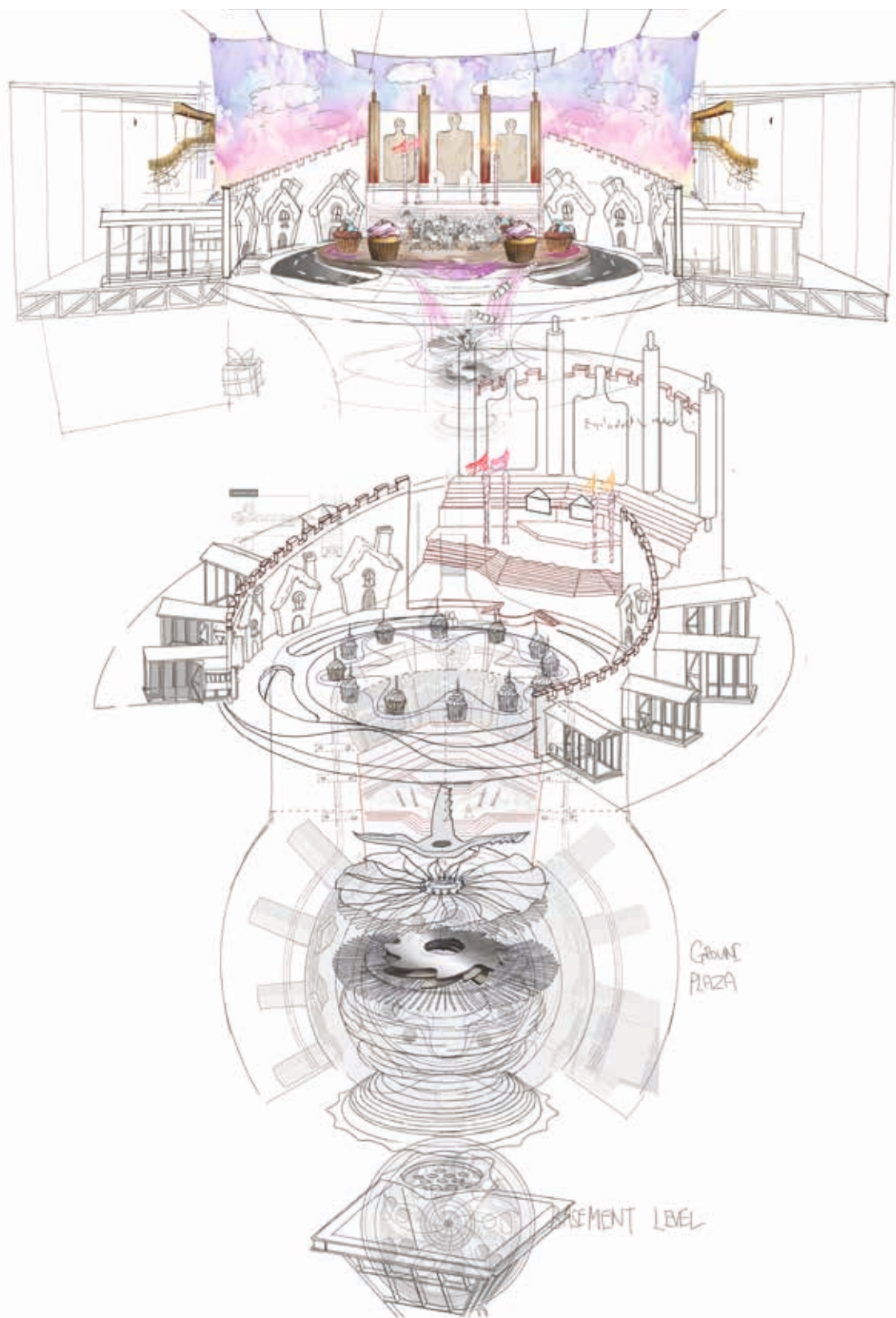
Towards a Ludic Interpretation of Cities and Architecture: Transposing Protests into Allegorical Worlds in Video Games

Mass protests, such as the 2011 Occupy London or the 2013 EuroMaidan, witnessed demonstrators engaging in exuberant forms of play and expression that challenged government policies, exposed institutional injustices and fostered critical political discourse. Interactive street art transformed the canvas of public spaces in cities, including squares, sidewalks and transit terminals, into carnivalesque environments, enabling citizens to freely express their political ideas and explore alternative social structures.

This thesis explores how architectural and spatial strategies deployed in protests

establish ludic domains of socio-political expression in support of citizens' freedoms and human rights. By experimenting with video games as an interactive storytelling apparatus, the research attempts to capture and reinvent protests beyond the physical realm. It aims to inspire creative responses to oppressive governance, cultivate artistic methodologies for confronting power, and further the political imagination of people through allegorical transpositions of real-world protests into the video game world.

Exploded diagram of Happy Birthday Town
(Author: Mike Kwok)



Patricia Rodrigues Ferreira da Silva

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After the Future: Architecture and the Military Regime in Brazil (1964–1985)

From the early 1930s, Brazilian modernist architecture was politically attuned, starting with the iconic Ministry of Education and Public Health in Rio de Janeiro (1936) and reaching an apex with the new capital Brasilia in 1960. Within approximately three decades, Brazil witnessed the rise of a new architectural style, following the huge technological innovations and sociopolitical changes that were taking place in the country. Alongside economic and population growth, the construction of buildings, infrastructure and entire cities consolidated Brazil's image as the 'Land of the Future'.

However, the Cold War brought fears of communist insurrections in Latin America. In contrast to the euphoric aura of previous decades, the 1960s were marked by numerous *coups d'état* endorsed by the United States, leading to political instability, violence and fear in South American countries. Brazil's military regime (1964–1985) used suspicious statistics of economic growth to justify large-scale construction and territorial expansion. Yet, its political use of architecture remains unclear; the ensuing revulsion about the dictatorship has left us with no in-depth architectural history of this period.

This research analyses how Brazilian architecture responded to political shifts under military rule. It shows how buildings, images and ideas about the built environment helped shape a vision of the country that either supported the regime's intentions or, conversely, evidenced the political, economic and social crisis of that period. In retracing this missing piece of Brazilian architectural history – within a period spanning from the intensification of repressive policies with Institutional Act no. Five in 1968 to the Amnesty Law of 1979 – the thesis provides an interpretation of this context through the lens of architecture, elucidating the relationship between design and politics.

General meeting with the students at the Faculty of Architecture and Urbanism, University of São Paulo, 1969 (Photograph: Raul Garcez, courtesy: Vilanova Artigas Family Collection)



Elin Söderberg

The Bartlett School of Architecture

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Tingskog: A Proposal to Reforest the Contemporary Architectural Imagination of Things

We live in an era of unprecedented environmental change, motivating equally unprecedented actions to combat its consequences. Speculating on a reforestation of the contemporary architectural imagination, the central objective of this research is to develop a radical alternative response to how architecture should engage in efforts to restore the boreal forest ecosystems in Sweden.

The research interweaves an investigation of how the forest, considered as a physical, legal and socioecological landscape, has served as a stimulus for Swedish imaginations with a critical re-examination of timber building practices. Taking Oppigården, a 1873 timber building located within the Hälsingland *landskap* province as a primary case study and site for a design-led inquiry, the first part of the thesis examines the relation between its construction method, the forest and the judicially founded assembly of the Scandinavian *ting* through historical research, measured surveys and photographic documentation. Building restoration and speculative design studies then provide the means to interrogate the contemporary relevance of Oppigården's

historical construction, proposing a new architectural assembly that aims to evoke the material, spatial and structural qualities of the Swedish forests.

While timber buildings in Sweden have long been used by building restoration professionals as sources of historical knowledge about human practice, the creative agency and co-authorship of the forest within their designs have rarely been considered. Moreover, the interrelationship between forest, timber construction and the *ting* has not been well explored yet, which opens new perspectives and avenues of inquiry within architectural discourse. As such, this study provides an alternative way of looking at the history of timber construction technologies in Sweden and contributes with new relational and ecologically conscious approaches to contemporary architectural design.

First floor interior view of Oppigården
(Photograph: Elin Söderberg, 2021)



Anna Talvi

The Bartlett School of Architecture

Supervisors: Professor Sean Hanna · Dr Christopher Leung

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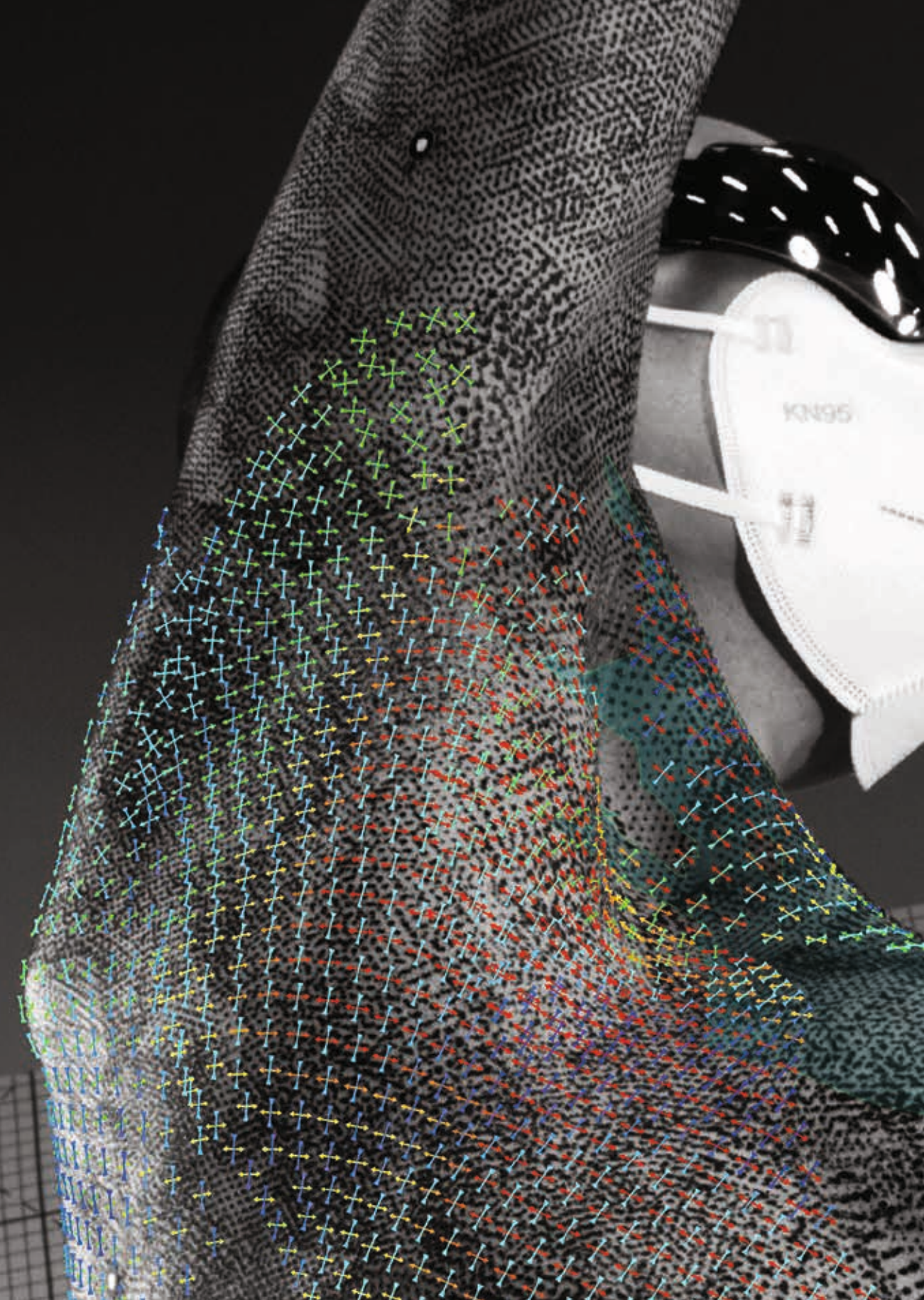
Microgravity-wear: Quantifying Parameters for Improved Astronaut-Spacesuit Multiscale Performance

Spacesuits are one of the most advanced exosystems. Their design is based on principles of systems engineering to sustain people in space by managing their inputs and outputs. Remarkably, many human factors, such as the astronaut-spacesuit dynamic fit, are not sufficiently understood or quantified. Such ill-defined requirements result in suboptimal fit, which is tightly linked to injury risk, decreased performance of wearable technology and mobility. With the increasing duration of manned missions, suits and wearables must meet the requirements for astronauts not only to survive, but also to provide optimal performance for prolonged living and working in microgravity environments.

The main objective of this research is to improve the astronaut-spacesuit dynamic performance. Two analytical methods are deployed to this end: the top-down approach is used to determine the degree to which objective dynamic microgravity-specific fit parameters can be quantified through Digital Image Correlation strain analysis; the bottom-up approach is used to demonstrate that the force-extension behaviour of CNC weft-knitted textiles can be predicted, and the multiscale strain profiles of the body can be met

through a topology-based framework for CNC weft-knitting. The synthesis of the top-down and bottom-up strategies will provide a framework directly applicable to different spacesuit components. These include the construction and manufacturing specifications of the thermal micrometeoroid garment and the liquid cooling and ventilation garment, as well as the alignment of textile-integrated electronics, biosensors and pressure bladder restraints.

Skin strain analysis around the shoulder joint
(Author: Anna Talvi, 2023)



Jonathan Tyrrell

The Bartlett School of Architecture

Supervisors: Professor Penelope Haralambidou · Dr Nina Vollenbröker · Professor Bob Sheil

Architecture's Acoustic Shadow: Unsettling the Sound/Space Relationship

The acoustic signature of an architectural space conveys complex information about its geometry, materiality, tectonics and occupation. As such, hearing is often considered to be an inherently spatial sense. However, a Vitruvian emphasis on reverberation has overlooked how sound operates *transversally*, moving through bodies and matter, undermining spatial division, and confounding architectural legibility. Furthermore, there exists a strong ableist bias within architectural discourse on sound, assuming a universal listening subject. How then might we account for different forms of listening in our shared soundscape? And how might a focus on material transmission, rather than reverberation, change the way space and sound are mutually conceived and experienced?

This research draws on sound studies, deaf studies, and new materialism as conceptual and ethical frameworks at three sites of sonic encounter: matter, the body and the expanded field. The practice-based side of the research involves the construction of architectural interfaces that displace the normative human hearing range, providing alternative modes of listening to spatial environments. This

includes self-resonating vibro-tactile feedback instruments, electro-magnetic induction loops and augmented contact microphones which are used in experimental field recordings of landscapes and urban environments. These strategies inform the design of a small meditation pavilion at a Tibetan Buddhist centre in rural Austria which uses sonically-active materials to mediate between the soundscape and the body, while also negotiating the complex cosmopolitics of the site.

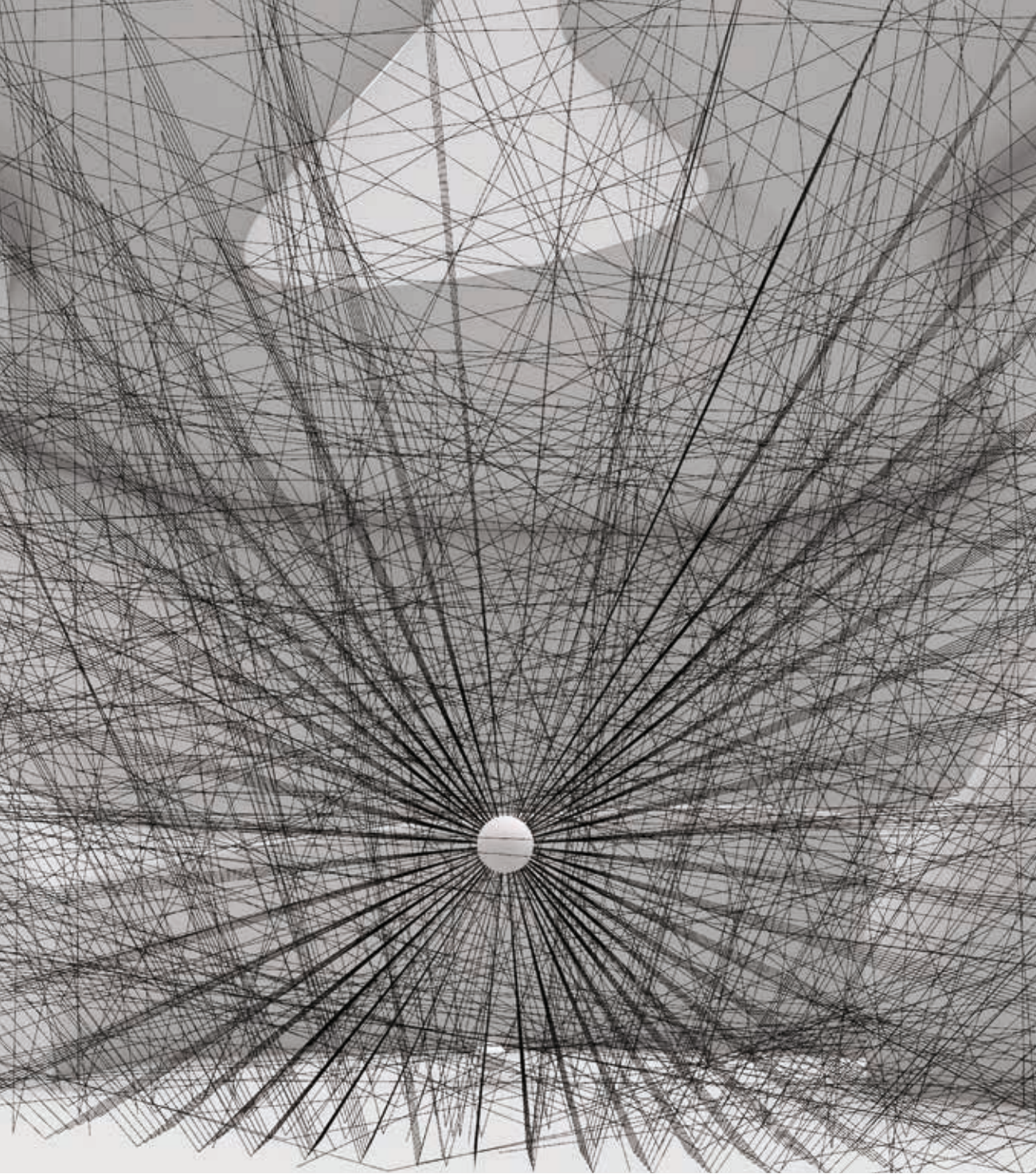
By attending to how different bodies – and even how different materials – listen to space, this research attempts to shift the focus away from sound as a *phenomenon* of study towards sound as a *critical method* for interrogating the built environment.

House of The Refrain tectonic maquette, version 01, 2022 (Author: Jonathan Tyrrell)



Recent Graduates

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Dr Paul Bavister

The Bartlett School of Architecture

Supervisors: Professor Stephen Gage · Professor Penelope Haralambidou · Dr Raf Orlowski

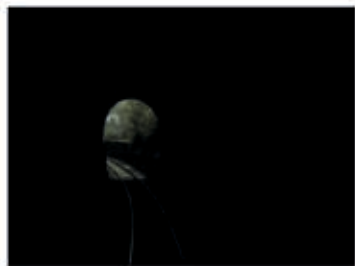
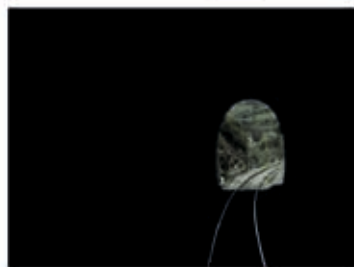
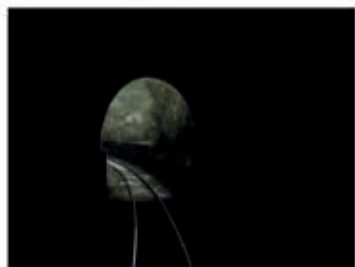
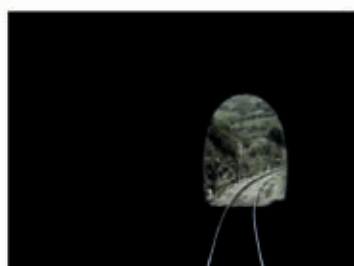
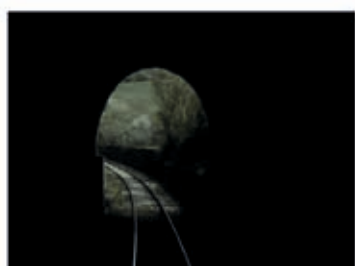
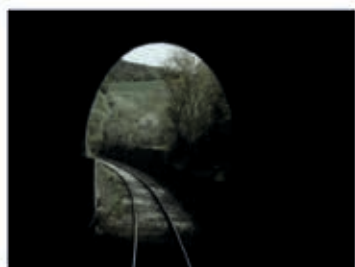
The Biometric Evolution of Sound and Space

Auditoria in the late twentieth and early twenty-first centuries have evolved and settled into a series of spatial conventions that are now an established and accepted norm. The relationship between space and music now exists in a decoupled condition, and music is no longer reliant on volumetric and material conditions to define its form.

This research explores a series of novel approaches to investigate how the links between music and space can be reconnected through evolutionary computation, parametric modelling, virtual acoustics and biometric sensing. The thesis describes in detail the experiments undertaken in developing methodologies that link music, space and the body – proposing a reciprocally creative relationship between music and physical space using digital technology. It allows observers to witness the evolution of a spatial or musical form to suit the unspoken tastes of a listener. The work describes a process that can reverse-engineer an implied acoustic space, or piece of music, from purely sonic stimuli. The aim of these experiments is to allow psychophysiological responses to sound and space to act as a fitness criterion in an evolutionary process to develop an acoustically sensitive volume.

The thesis demonstrates how it is possible to develop new form-finding and compositional tools to allow the development of new room shapes and situated music. These new acoustic and musical forms are developed unconsciously and objectively by a listener in direct response to sound, site and the body.

Sound source in evolved space with ray trace tails
(Authors: Nana Bang and Paul Bavister, 2023)



Dr Ruth Bernatek

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Supervisors: Professor Penelope Haralambidou · Professor Iain Borden

Sound Making Space: The Audiovisual Architecture of the *Polytope de Montréal* and the *Polytope de Mycenae* by Iannis Xenakis (1967–1978)

This thesis examines the *Polytope* projects, a series of large-scale interactive audiovisual environments developed by the engineer, architect and composer Iannis Xenakis (1922–2001), and performed for international festivals and world's fairs between 1967 and 1978. It identifies important architectural and spatial legacies of the *Polytope* projects and challenges their common characterisation as essentially 'musical' works in existing scholarship. By drawing attention to the spatial, technical and socio-specific aspects of Xenakis's work, I argue that the *Polytope* projects can be understood as a novel building typology, or audiovisual architecture, that emerges in the late 1950s and acquires legibility as a type in conjunction with post-war technologies.

Whilst introducing the *Polytope* projects to a wider audience of architects and designers, the thesis also takes a sonic approach to the architectural archive. Unlike conventional 'built' architectural works, the *Polytope* projects are conceived, designed, executed and experienced as neither purely spatial nor purely sonic works that unfold in time. They thus compel alternative frameworks for historical interpretation that account for their sonic

and spatial situatedness. In response, the thesis adopts an interdisciplinary methodology, combining architectural history, theory, archival and field research with practice-informed inquiry to 'recreate' two of Xenakis's *Polytope* projects, the *Polytope de Montréal* (1967) and *Polytope de Mycenae* (1978), through drawing and film. As such, it proposes new ways to think and engage critically with architecture in relation to sound.

Stills from the film *X/Earwitness* (Authors: Anna Ulrikke Andersen and Ruth Bernatek, 2018)



The Architect-Teacher's Role in Formulating Architectural Pedagogy in China before 1952: The Examples of Huang Zuoshen and Liang Sicheng

This thesis examines China's early modern architectural pedagogy before the 1952 restructuring of higher education. It compares Liang Sicheng (1901–1972) and Huang Zuoshen (1915–1975) in their respective departments of architectural engineering at Tsinghua University (Beijing) and St John's University (SJU, Shanghai). Three themes – architect-teacher, makeshift modernity, and contested discourse – encapsulate Huang's and Liang's teaching methodologies and reflect their foreign study experiences.

Part 1 is dedicated to Huang, encompassing: his studies at the Architectural Association (1933–1938) during its curricular revolution inspired by the Modern Architectural Research Group; his learning at the Graduate School of Design (1939–1941), not only from Walter Gropius (which has been the focus of previous scholarship) but also from other modernists; and the SJU architecture programme that Huang established in 1942, where he gathered an international faculty and promoted progressiveness beyond Bauhaus principles.

Part 2 features Liang's environmental design pedagogy at Tsinghua, including: his concept of building (*ying jian*, culminating in his proposal for a College of Building); his

methods of teaching city planning (which he added to his curriculum after World War II); and his influences from midwestern US institutions (Cranbrook Academy of Art, University of Michigan, and Taliesin) and Harvard's Fogg Museum of Art.

Lastly, this thesis investigates Huang's and Liang's beliefs about the social position of the architect. It aligns Liang's views on architecture's relationship to society, engineering and art, with Huang's commitment to architecture's popular, scientific and national aspects in post-1949 China. The thesis demonstrates that, despite the differences between inward-looking Beijing and outward-looking Shanghai, and between Liang's and Huang's respective backgrounds in the Beaux-Arts and Bauhaus modernism, these two figures embody the broader phenomenon of the establishment of architectural education in the first half of twentieth-century China.

The Bicentennial Conference *Planning Man's Physical Environment* group outside the Princeton Inn, 1947 (Liang Sicheng, at the end of the second row [far left], is the only non-Westerner amongst an all-star cast of all-white, and all-male [with the exception of Catherine Bauer in a marginal position at the far right of the third row] Western modernists including Walter Gropius, Alvar Aalto and Frank Lloyd Wright)



Dr Chi Nguyen

The Bartlett School of Architecture

Supervisors: Professor Ben Campkin · Professor Peter Bishop · Dr Rebecca Ross

The Hyper-Textual and the Hyper-Attentive: A Communication Design Examination of the Publics of the London Plan 2021

The London Plan is the Mayor of London's flagship policy document, a crucial blueprint for the UK capital city's strategic spatial development over the long-term. It is a document of great public consequence, subject to statutory calls for public participation, examination in public and publication. In preparing the draft plan, the Greater London Authority makes it available to 'the public' – open to all – to 'have a say' on the Mayor's proposals for how London's future should take shape. But what does it mean for the London Plan to be a public document? Who is the public that gets involved? How, where, when, and/or for whom is the plan public?

This practical research project attends to the public(s) of the London Plan 2021 and its 2017 draft for consultation, following the word 'public' around and paying attention to the ways in which plan writers, editors, readers and respondents make public and circulate their texts. From my perspective as a communication designer, the research raises questions about the communication and design of the document, and sheds light on the complexities and contradictions of its publicness, addressing a gap in scholarship on the conceptualisation and role of 'the public' in shaping the plan. Bringing the fields of

graphic design and urbanism closer together with original connections between research and practice, the project contributes new transdisciplinary knowledge about the communication of planning documents and the relationship between public-making, plan-making and policy-making, in London. Through graphic design experiments and a design proposal for a London Plan Public Library, among other methodologies, the thesis situates the London Plan as a material, discursive site at which a *public of multiple publics* forms. The term 'hyper' means to go above and beyond – to exceed the normal bounds. This research reveals the public(s) of the London Plan to be 'hyper-textual' and 'hyper-attentive'.

Top: London Plan Public Library, online digital archive, HTML, CSS & PHP, available at <http://londonplanpubliclibrary.info> (website development and design: Chi Nguyen, 2021).

Bottom: WORD COUNT, 155 x 235 mm booklet, 480 pp. (publication design: Chi Nguyen, 2019)

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12454 MOTT STREET, NEW YORK.

Dr Kerri Culhane

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Constructing New York's Chinatown (1882–1965): Transnational Politics, Identity and the Architecture of Poy Gum Lee

Between 1882 and 1965, a time of restrictive anti-Chinese immigration policy in the US, the Chinese community of New York created an urban landscape built on Chinese social, cultural and building traditions. Scholars have explored the economic utility of familiar Chinatown architectural tropes, but this history looks instead at the socio-political value of the built environment. While Chinatown and its Chinese constituents were interpreted by outsiders as 'tradition-bound' and 'pre-modern', its many familial, regional, merchant and fraternal associations were at work shaping a modern Chinese Republic. These associations were based on the Chinese *huiguan*, a physical place and social space crucial to the maintenance of cultural identities for sojourners within China and abroad. They were deeply engaged in Chinese politics, including reformist and revolutionary activity that culminated in the Revolution of 1911.

To understand strategies of self-representation, this thesis examines two of Chinatown's most powerful organisations and their impact in shaping its built environment: the Chinese Consolidated Benevolent Association (CCBA) and the On Leong Tong. The analysis is concentrated

across two periods defined by US immigration policy: the eras of Exclusion (1882–1945) and of Nominal Inclusion (1945–1965).

A figure embodying the complex interconnections between China and New York for the purposes of this study is the Chinese American architect Poy Gum Lee (1900–1968). Lee was central to the emergence of modern architecture in China and Chinatown at a time when architecture in both contexts was a signifier of Chinese modernity. For Republican China, this took the form of combining Western technologies with Chinese architectural features which Lee brought back to New York in the post-war era as an imported Chinese architectural modernism. His designs for the CCBA (1947; 1957) and On Leong Tong (1948–1950) highlight the strong transnational ties between New York's Chinatown and China in the mid-twentieth century.

Huiguan on lower Mott Street, c. 1910
(public domain)



Dr Judit Ferencz

The Bartlett School of Architecture

Supervisors: Professor Jane Rendell · Professor Murray Fraser

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A Book of Hours for Robin Hood Gardens: Reportage Drawing as an Interdisciplinary Conservation Method for Architectural Heritage

The housing crisis in London – where building renewal is less than 1% per year (Power, 2008) – calls for a rethinking of the role that historic building conservation plays in debates regarding the demolition or refurbishment of social housing. My research develops a new critical-creative methodology, paying special attention to the temporality of sites for architectural heritage/conservation practices. My architectural case study is the East London housing estate Robin Hood Gardens (1972), which was refused listing in 2009 and 2015, and demolished as part of a regeneration scheme.

This thesis brings together archival historical research, ethnographic on-site practice and physical bookmaking. Its methodology draws on my practice as an illustrator, situating this as a link between *falkutatás*, a practice developed in 1960s Hungary that applies archaeological stratigraphy to walls of historical buildings, and Jane Rendell's idea of 'site-writing', defined as a 'material, emotional, political and conceptual' approach to situated criticism and practice-led research (Rendell, 2010). My thesis reevaluates *falkutatás* as a site-writing practice through imaginatively reworking the historic, material and

temporal literary form of *The Book of Hours*, a type of late-medieval illuminated manuscript.

The structure of my thesis follows the yearly cycle in twelve theoretical essays, each addressing a key theme of the research. These essays nest within four design folios, each addressing a season at Robin Hood Gardens through techniques specific to site-based research, such as reportage drawing and montage. The sense of time emphasised by the seasons in the northern hemisphere informs the site-writing practices. Using combinations of spatial and visual narratives, my thesis reworks the processes and temporalities of heritage and conservation. By engaging with specific agencies and audiences (including governmental bodies, architects and residents), several processes that are often disregarded, such as the time spent waiting for demolition or recalling the entire lifecycle of the estate, are brought to life.

Selected compartments of the thesis box
(Author: Judit Ferencz, 2022)



Dr Nina Jotanovic

The Bartlett School of Architecture

Supervisors: Professor Marcos Cruz · Professor Marc-Olivier Coppens

Biogenic Architecture: Biomineralisation as an Emerging Material Practice

As a result of significant progress in material science, the last century introduced numerous advances in architecture. While a vast array of synthetic materials for architectural use has been created, most of these materials have limitations that need to be urgently addressed. Their industrialised manufacturing processes entail harsh conditions, extreme pH levels and elevated pressure and temperature, which are highly unsustainable. As the consequences of such processes are progressively becoming tangible, it is critical to rethink routes of material creation to mitigate some of these effects. Beyond environmental damage, many synthetic materials often exhibit perceptual uniformity when compared to natural ones, undermining certain aspects of human sensory experience.

Developing new processes of material creation, where biology acts as a model and a method, is crucial to addressing both challenges. In nature, a process of biomineralisation creates solid materials with exquisite perceptual and performative properties under environmentally benign conditions. This research explores how adopting principles of biomineralisation in laboratory and design processes offers methods for shifting manufacturing

techniques, with the aim of creating a new generation of materials able to positively participate in the Earth's cycles, and concurrently enhance perceptual stimulation.

Through simultaneous employment of lab and design experiments, the work uncovers potential routes of applying biomineralisation to produce a thin outermost layer of architectural materials. These microscopically bulky biogenic coverings differ from conventional architectural coatings through their performative aspects, notably their capacity for biogeochemical interaction. Material appearance, inherent to the growth process, is further explored with the aim of augmenting perceptual stimulation through surface-light interactions. Three-dimensional bulkiness and precise ordering within the material microstructure, together with biological integration, are found to be two key principles that enable biomineralised thin materials to offer performative and perceptual possibilities that address some of the current material challenges in architecture.

Prototype 'Biogenic Encrusting' exhibited as part of the Ars Electronica Festival 2020, Gallery 'Kolektiv', Belgrade (Author: Nina Jotanovic)

ACCATTONE

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SIMON BOUDVIN ¹⁶
ANNE HOLTROP ^{28 70}
BAS PRINCEN ²⁸
MAAIKE LAUWAERT ²⁸
DE VYLDER VINCK TAILLIEU ^{38 86}
MIES VAN DER ROHE ⁴⁸
ROBBRECHT EN DAEM ⁴⁸
CHRISTIANE LANGE ⁴⁸
SANDRO DELLA NOCE ^{62 90}
GILLES POURTIER ⁶²
GUILLAUME GATTIER ⁶²
ALVAR AALTO ⁷²
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Dr Carlo Menon

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Critical Editorial Devices in a Minor Mode: 'Little' Architecture Magazines of the Early Twenty-First Century

This thesis explores the role of contemporary 'little' magazines in exchanging ideas in architecture, focusing on the notion of *critical editorial devices* as a *minor mode* of architectural criticism and publishing. It does this through a critical and theoretical study of contemporary little architecture magazines (c. 2008–2021), engaged in a feedback loop with my own experimental practice of co-editing and managing the little magazine *Accattone* (2014–ongoing).

Defined as self-published, non-commercial periodicals of small circulation (Hoffman et al., 1946), and celebrated as critical agents of the 1960s and 1970s (Colomina and Buckley, 2010), little architecture magazines are now proliferating again in this post-digital age. As a real-time investigation of 'live' material, this thesis is designed as a critical ethnography delving into a field of ninety-seven little architecture magazines printed in Europe in the past fifteen years, responding to what has been described as a 'crisis of criticism' (Rendell et al., 2007), with two main aims: 1) to explore the little architecture magazine's practice of critical editorial devices as a way of moving beyond the conventional, text-based critical essay, allowing for a more comprehensive understanding of the little magazine as

a designed, programmed and performed space, at the intersection of people, places, concepts, documents and buildings, and 2) to theorise *minor modes* of practice as an emancipatory political position to tackle architecture in the present age (Deleuze and Guattari, 1975), and in so doing, to critically evaluate the existing scene of little architecture magazines.

Volume I conveys the main arguments through a general introduction and a series of nine essays while Volume II presents the first seven issues of *Accattone*, demonstrating how this editorial practice sometimes anticipated, and sometimes followed, the theoretical and critical findings of the fieldwork. A comprehensive annotated catalogue of the surveyed material allows for further research.

Accattone magazine (cover of issue 1, March 2014)



Dr Thomas Pearce

The Bartlett School of Architecture

Supervisors: Professor Peg Rawes · Professor Nat Chard

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An Architecture of Parallax: Design Research between Speculative Historiography and Experimental Fabrication

Through an architectural design practice between speculative historiography and experimental fabrication, this PhD develops a design research method revolving around shifting notions of parallax. Parallax, the effect whereby the position or direction of an object appears to differ when viewed from different positions, is fundamental to the geometrical reconstruction of three-dimensional spatial positions from two-dimensional information, and lies at the basis of technologies like photogrammetry. Moving beyond this metrological meaning, the work proposes an expanded notion of parallax that accommodates and generates multiplicity, thereby challenging the imperatives of homogeneous categorisation in current (digital) architectural design practice. The method is developed through a series of projects oscillating between historical enquiry and experimental technological design practice. Through the description of these projects, ranging from the speculative reconstruction of a long-destroyed unphotographable tailor shop to the fabrication of a prototype for an inhabitable mobile amphibious sculpture, the parallax method unfolds simultaneously as a mode of observation and creative invention.

Following parallax shifts between the heterogeneous points of view of historical interlocutors, technological agents (digital fabrication, scripting, 3D scanning and robotics) and further ‘others’, architectural artefacts are created that hold the capacity for an ongoing multiplicity of interpretation and open-ended reinvention. It is through the parallax method’s embrace of difference, its combination of heterogeneous frames of reference, allowing non-belonging elements to cross, contaminate and co-enact, that it is able to create thick and indeterminate architectural design assemblages that continue to generate difference. The thesis formulates a theoretical framework for this entanglement of parallax knowing and making by referring to poststructuralist philosophy (in particular, Karen Barad’s writings on quantum theory) and questioning the very separability of historiography and design practice, and of capture and fabrication; instead, it describes design research as a mutually implicated onto-epistemological practice.

Jakob K. Der Neue Mensch, performed at Kampnagel, Hamburg, May 2018; set design, video work and artistic collaboration with Mara Kanthak and performance makers Heike Bröckerhoff, Moritz Frischkorn, Jonas Woltemate (Author: Thomas Pearce; photograph: Anja Beutler)



Dr Sol Pérez-Martínez

The Bartlett School of Architecture

Supervisors: Professor Jane Rendell · Professor Kathryn Riley

Learn Where You Stand: Lessons for Civic Engagement in Architecture and the Built Environment from the Urban Studies Centres Network and their Situated Pedagogies in Britain (1968–1988)

Urban Studies Centres (USCs) were a network of British organisations for public education and citizen involvement in architecture and planning during the 1970s and 1980s, initially advocated by anarchist writer Colin Ward and planning journalist Anthony Fyson. This research examines the histories of the USCs between 1968 and 1988, exploring their contribution to civic engagement in architecture and the built environment. It argues that USCs offer valuable insights into three contemporary challenges for equitable environments: the social engagement of architects and built environment professionals; the spatial engagement of educators; and the transdisciplinary collaboration between educators, architects and citizens for spatial justice.

‘Part 1: Crossings’ explores theories, pedagogies and methods for crossing between architecture and education, drawing on Donna Haraway’s ‘situated knowledges’. First, it contributes a feminist, sociomaterial and radical theoretical approach to education for just environments. Second, it connects three literatures: socially engaged practices by architects and spatial practitioners; sociomaterial research in education; and

situated learning approaches that combine environment, education and equity, hereby called ‘situated pedagogies’. Third, informed by critical ethnography, it argues for situated methods in architectural history, which engage in public scholarship as a tool for social change.

‘Part 2: Bridges’ examines historical examples of situated pedagogies in the practices of the USCs and the *Bulletin of Environmental Education*. Through archival and oral history, it contributes unpublished archival material, newly conducted interviews, and multiple stories, arguing the USCs were ‘enabling entanglements’ (Tsing, 2005) fostering an ‘ecology of practices’ (Stengers, 2005) necessary to sustain a movement for environmental equity. Using public history, I bridge this research with present-day projects, including urban rooms and civic schools. As a result of this thesis, I advocate to ‘learn where you stand’ through situated practices and situated pedagogies, as a first step towards creating inclusive environments for all.

Notting Dale Urban Studies Centre, c. 1974
(Photograph courtesy of Sol Pérez-Martínez
and The Royal Borough of Kensington & Chelsea
Local Studies & Archives)



Dr Matthew Poulter

The Bartlett School of Architecture

Supervisors: Professor Peg Rawes · Professor Barbara Penner · Dr Jan Birksted

Of a Vellum Book: A Historical and Representational Study of William Leybourn's *Survey of Encroachments upon the Old London Wall (1676)*

This thesis is a historical and representational study of William Leybourn's *Survey of Encroachments upon the London Wall* (1676). Leybourn's drawing was designed to generate much-needed income for the City of London, by claiming ancient rights to lands 16 feet either side of the London Wall. Produced in the aftermath of the Great Fire on the orders of the Corporation of London, Leybourn's drawn survey – to which I refer as the 'Vellum Book' – transformed the conception of the City of London as an estate, and the status of the Old London Wall as civic architecture.

By studying drawn representations of the Wall and related historical visual materials, this thesis argues that Leybourn's geometric plan is a multivalent architectural object of study. In addition, it claims that the Wall can be read through later representations of encroachment: measured surveys (seventeenth century); regional descriptions (eighteenth century); antiquarian drawings (nineteenth century); and archaeological investigations (twentieth century). Developed from archival research into Corporation records and a critical analysis of William Leybourn's drawings, this research charts the circumstances of the Vellum Book's production and subsequent

use in representing encroachment.

The thesis opens with a close historical reading of the Vellum Book and other encroachment surveys. Later chapters describe representations of encroachments along the Wall in subsequent centuries and evaluates them as evidence of architectural occupation, which further articulates the multivalency of the Wall as an artefact of continuing cultural significance.

My findings demonstrate that the Vellum Book was the first significant attempt to create a systematic drawn management plan of the City's land that sought to transform how the City managed its estate and marked a change in the cultural value of the Wall. Through my analysis of the Vellum Book, the thesis shows that the London Wall's contemporary value lies not just in its fragmentary archaeological survival, but also in its reception as a significant example of post-Fire architectural representation.

William Leybourn, *Survey of Encroachments upon the Old London Wall (1676)*, Folio 23



Dr Tony Presland

The Bartlett School of Architecture

Supervisors: Professor Iain Borden · Dr Robin Wilson

Picturing Construction, Constructing Identities: The Photographic Archive of John Laing & Son Ltd

This thesis examines a photographic archive created by John Laing & Son Ltd, a major UK civil engineering and housebuilding company between 1848 and 2002. It starts by developing a history of Laing, describing how the archive amplifies works which were important to the company and offers a perspective on the construction products and processes employed. It demonstrates how the retention of images drives a specific and intended presentation of the company. The second theme debates the use of photography in the development of Laing's internal and external corporate identities. The use of photography in advertising, and as a component of internal communications, is considered.

The final theme explored is the presentation of the built environment through the construction phase. It is argued that construction photography has a different character to that of architectural photography. This difference in character is evidenced through examination of a small number of specific works undertaken by Laing. The practice and profession of construction photography is compared to that of architectural photographers.

The thesis concludes by arguing that while a single photograph captures

a moment in time, the John Laing Photographic Collection presents a flow of events that can be viewed as a process of physical and immaterial creation through the construction of buildings and identity. This sense of a process is intrinsic to construction and is proposed as a differentiator to much of what is shown in architectural photography, with its emphasis on the presentation of a completed structure, often frozen at the conclusion of construction and before habitation. Implicitly, the thesis demonstrates the value of photography to historians of the built environment and especially the process of construction.

Workers from John Laing and & Ltd installing precast concrete beams for the outer roof section at the western corner of the Commonwealth Institute exhibition hall, 7th September 1961 (© Historic England Archive. John Laing Photographic Collection JLP01/08/060849)



Dr Sarah Rivière

The Bartlett School of Architecture

Supervisors: Professor Nat Chard · Professor Jane Rendell

The *Stasis* Arena: Renegotiating the Architecture of the Social through Kindred Confrontation at 835 Kings Road

This thesis reanimates the ancient Greek concept of *stasis* (στάσις) as a restrained confrontation between kindred yet dissenting parties. Combining archival research with speculative design, the work enables exchanges characterised by *stasis* to be performed in text and stop-motion animation through the case study of the Schindler House (1922) at 835 Kings Road, West Hollywood. A multi-faceted understanding of *stasis* as a conceptual tool is developed, through which rich concatenations of social space can be constituted.

Stasis is brought to life in response to Adrian Forty's (2000) position that architectural modernism was 'surprisingly inarticulate when it came to describing the specific social qualities aimed for in its works'. Performed here as a research methodology, the *stasis* arena becomes a space of confrontational engagement that demands participation and restraint. While largely informed by ancient Greek thought, additional reference to agonist, critical-spatial and semantic discourse on the social, enables a malleable understanding of *stasis* to be configured and applied as a speculative tool to discuss located social exchange within architectural history and design.

Grounded in archival sources (Architecture & Design Collection, UC Santa Barbara), the methodology sets up *stasis* by representing the initial four co-residents of 835 Kings Road as equitably matched individual players engaged in confrontations that are played out through writing their entwined histories and performing fictional animated vignettes. As the four residents (and their house) struggle within these *stasis* arenas, each taking a discrete stance, the process brings to life alternate readings of the historical failure of their cooperative ambition that challenge existing architectural histories of the house, and demand a shift in the future design of co-operative space. By working to maintain this series of matched confrontations, the research presents the *stasis* arena as a place where dissensus and mutuality can generatively co-exist within cultural discourse and spatial practice.

The Stasis Arena (Author: Sarah Rivière, 2022)



Shaping the Modern: Architectural Cultures and Critique in Late-Colonial India (1913–c.1948)

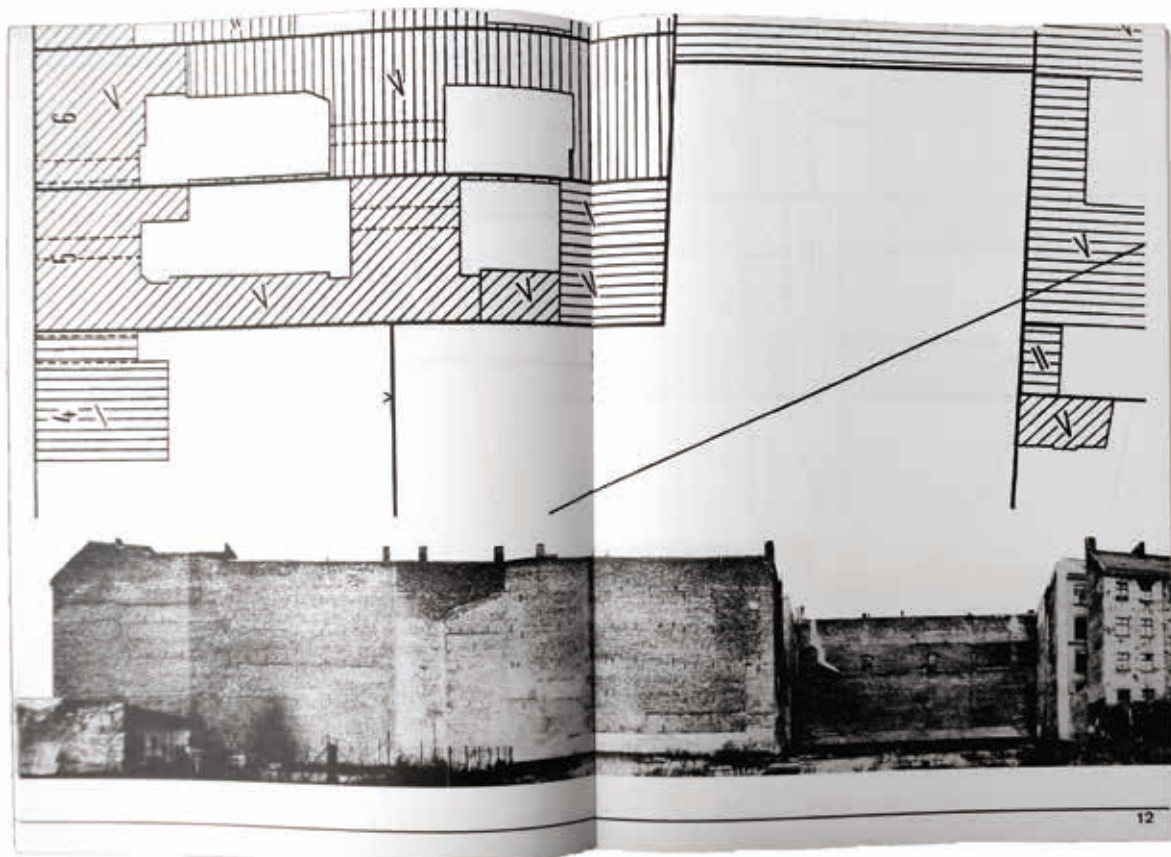
This thesis focuses on a particular set of highly experimental architectural and spatial practices that sought to reimagine what modernity meant in the last decades of colonial India (c.1910s–1940s). It argues that such practices, in effect, expressed a critique of prevailing, dominant paradigms of what could be considered ‘modern’. My study reveals how these critiques spanned social, educational, scientific and cultural spheres, whereby myriad figures and processes exceeding architecture constituted its architectural cultures. The research thus questions certain canonical, often formalist, narratives on modern architecture. It shifts the emphasis from artefacts or ideology to the human contacts and relationships that animated the material and immaterial processes of architectural production.

The thesis is developed in two parts. Adopting an approach of connected histories, the first part traces the contingent nature of the historical milieu, revealing how interpersonal exchanges of individuals, both within the Indian subcontinent and beyond, fostered shared forms of critical or creative thought, flows of ideas, knowledge, finance and labour. The second part illuminates the nature of such processes

through three detailed investigations: the first focusing on an experimental educational institution in eastern India, Visva-Bharati; the second examining a single building project, Golconde, in south-eastern India; and the third exploring the practice of self-taught architect Surendranath Kar. Each of these studies privileges a distinct historical perspective. Collectively, they represent multiple, mobile scales of analysis.

By viewing these figures, projects and processes within a wider endeavour of shaping modernity in late-colonial India, this study contributes a critical understanding of space and architecture to social and cultural histories of modern India and beyond. Concurrently, the thesis argues how architectural histories can be narrated by foregrounding the human and affective dimensions within building and spatial processes to productively decentre their overarching concern with building form, ideology, aesthetics or materiality.

Outdoor classrooms in Santiniketan, the Site of Visva-Bharati (Photograph: Saptarshi Sanyal, 2011)



Dr Alessandro Toti

The Bartlett School of Architecture

Supervisors: Professor Peg Rawes · Professor Barbara Penner

West Berlin Marxist Architecture Groups (1963–1977): A History of Housing, Planning, Education and Struggle

This thesis investigates the history of Marxist architecture groups in West Berlin between 1963 and 1977 in light of their contributions to housing, planning, education and political struggle. It explores how students and architects engaged with Marxist theory and practice during this time, and how this resulted in their participation in alternative seminars and exhibitions, university protests, housing campaigns, political parties, trade unions and militant magazines. Following these activities, the thesis examines the different Marxist architecture groups' forms, objectives and methodologies, and illustrates how this diversity produced alternative evaluations of concepts such as social change, professional agency, and architectural modernism.

The thesis is divided into five chapters, representing five different stages in the development of the Marxist architecture groups. The first chapter investigates West Berlin and West Germany's socio-economic, political, cultural and architectural contexts from which the architecture student movement emerged. The second chapter explores attempts to reform architectural education in a more progressive sense between 1967 and 1968.

The third chapter focuses on how the two main activities of the period, the Diagnosis exhibition and the COOP seminars, tried to expand students' architectural critique to the political and social context beyond the university. The fourth chapter investigates the social, political and architectural challenges faced by students and activists who tried to employ their research to take part in housing campaigns. The fifth chapter discusses the critical contributions of a series of Marxist historical, political and socio-economic accounts of capitalist urban and architectural development.

Taking place in a moment of significant capitalist reorganisation, the thesis argues that the contribution of Marxist architecture groups such as these constitute an initial but foundational critique of contemporary housing, planning and education practices.

Arthur Laskus, Ulrike Pampe & Jürgen Sawade,
Berliner Brandwände (Berlin: Veröffentlichungen
zur Architektur, 1969), p. 12

ELECTRIC

THE

POLKA.



COMPOSED BY

ALPHONSE CARY.

Dr Adam Walls

The Bartlett School of Architecture

Supervisors: Professor Barbara Penner · Professor Iain Borden · Professor Matthew Beaumont

Twilight Spaces: Firelight, Racial Atmosphere and Imperial London

The late Victorian period is often presented as the moment when ‘firelight’ or older lighting technologies waned and were replaced by even, pure and rational ones. By contrast, this thesis argues that this moment actually marked the peak of firelight’s use, with gas burners extending into interior environments and the introduction of a new, electric form of fire: the open electric arc. The thesis provides a phenomenology of these two forms of firelight, including the atmospheres they produced. By reading historical texts alongside images, it attempts to anchor impressions back to the material atmospheres within which they were based, and which they helped constitute. The result is an assemblage of media and voices, gathered to form a thick and situated account of historical experience.

The thesis also offers a postcolonial and critical race revision of liberal histories of the period. Although municipal governments used lighting infrastructure to produce a visual, sanitary and freely circulating form of liberal space and subjectivity, these processes never fully disenchanted space nor did they render it completely transparent. Instead, the uneven distribution of light technologies in London produced a new array of what I call ‘twilight spaces’ and

subjectivities. These were liberal, imperial and sometimes resistant. Not only was lighting used to embody the ‘Manichaeism’ of empire, but it also played a central role in imperial modes of spectacle, as well as the racialisation of spaces and bodies. Within ‘twilight zones’ of encounter, lighting could either augment or disorientate the perception of race, and with it, London’s new racial orders – contributing to a distinctive *racial atmosphere*. By exploring this atmosphere, the thesis aims to render the whiteness of lighting visible, while also foregrounding the positive affects of darkness. More broadly, it stresses light’s role in the construction of subjective difference, complicating and contesting usual accounts of normative liberal subjectivity.

J. Nixon, lithograph cover for the sheet music of ‘The Electric Polka’ by Alphonse Cary, 1896 (© The Museum of Music History)



Dr Seda Zirek

The Bartlett School of Architecture

Supervisors: Professor Marjan Colletti · Professor Stephen Gage

File, Forest, Factory: Genetic Algorithms and Machine Learning with Spatially Varying Micro Properties of Materials and Fabrication Constraints for Digital Design and Making

This PhD research investigates design and making processes that are co-creative and generative, based on strategies similar to biological construction. It involves a series of studies that enable a final design while cooperating with algorithms, materials and fabrication constraints from an earlier stage of the process, for maximised integration. It uses genetic algorithms (GAs) and machine learning (ML) with spatially varying microproperties of heterogeneous materials as a way to design and build – particularly using GAs to design/optimize a solution, and ML to learn and generate materials.

The thesis is structured around three chapters: ‘File’ for algorithms, ‘Forest’ for materials, and ‘Factory’ for fabrication constraints. The ‘File’ chapter focuses on instructions and their contemporary version as algorithms. The ‘Forest’ chapter focuses on materials – wood, an anisotropic material, and marble, an isotropic material – at both the human and microscopic scale, with a discussion of spatial autocorrelation in natural materials and the design of synthetic microstructures. The ‘Factory’ chapter concentrates on the selected fabrication method of three-axis CNC milling. It investigates ways of integrating and enhancing the fabrication constraints

into a co-creative, generative design and making process.

A series of case studies presented throughout the research first investigate methods to maximise the integration among design elements, including instructions, microstructures of materials and fabrication constraints. Second, they explore ways to amplify these elements’ morphological involvement to maximise co-creativity. The case studies are analysed qualitatively and quantitatively across eleven specific categories. The performance of each case study is measured and evaluated using Ashby diagrams to assess the trade-offs between these categories and position them in a multi-dimensional space. By transforming the entire production process into a refined, sophisticated single phase, the thesis creates integrated design pipelines that address existing research gaps and challenge pre-existing forms.

A part-based design system utilising the microstructural data of timber (Author: Seda Zirek)

Conference Participants' Biographies

Vasilis Aronidis is an architect, musician, and PhD candidate at The Bartlett School of Architecture UCL. Before moving to London, he studied Architecture Engineering and completed his MSc in Architectural Theory at NTU Athens. While at The Bartlett, he was a member of the SOUND | MAKING | SPACE Doctoral Network, which he coordinated for the academic year 2018–19. Vasilis joined Studio M R in 2016, and since then, he has been leading design teams and supervising the construction of awarded buildings in historic districts of London and areas of significant heritage value in Somerset and Dorset.

Melissa Barrientos is a Chilean PhD researcher at The Bartlett School of Planning and The Bartlett Centre for Advanced Spatial Analysis UCL. She is also an architect and holds an MSc in Spatial Design. Her work focuses on exploring urban phenomena such as rapid urban growth and mass-produced developments, delving into the urban form and structure of the built environment. Melissa employs innovative morphometrics based on quantitative methods and complexity science to explore cities' dynamic and intricate landscapes as complex systems.

Yichuan Chen received his Bachelor's degree in Urban & Rural Planning in Southeast University in 2018 and an Urban Studies MSc at UCL's

Department of Geography in 2019. He has worked as an independent researcher of historic coastal fortifications (*paotai*) in late-19th- and early-20th-century China. Being the earliest application of modern concrete in China, these have led to his current PhD research project at The Bartlett School of Architecture.

Kirti Durelle is a PhD candidate in the Architectural and Urban History & Theory programme. He previously studied structural engineering, architecture and architectural history at the University of Sheffield and at The Bartlett, and practised as a structural engineer and an architect in Paris and London. At the University of Westminster, he teaches design studio DS(3)06 with Dr Victoria Watson, and leads an MArch history and theory seminar group on class, race, and landscape.

Zahira El-Nazer is a practising architect, urban designer and educator with a BArch in Architecture (American University of Beirut, 1994) and an MArch in Architecture and Urbanism (AA, 2000). She previously worked at the offices of Zaha Hadid and was appointed an urban design advisor for the London Thames Gateway Development. In 2009, she founded Zamuch, a digital collaborative practice that produces designs internationally in architecture

and urbanism. Zahira's research investigates the prevalence of complexity and self-organisation theories in urban and architectural epistemologies by re-reading the *Casbah* in high-modernist theory. She is currently a PhD candidate at The Bartlett School of Architecture.

Matan Flum is a PhD student at The Bartlett Development Planning Unit, supported by the UCL Overseas Research Scholarship. He is interested in spatial politics and Critical Whiteness Studies as well as critical discourse analysis. His research aims to examine Middle Eastern geopolitics through the dialogue between the built environment and *whiteness*. Before embarking on his PhD project, Matan co-authored a book with Prof. Dalia Gavriely-Nuri, *'Ma'abarot': It Is Not Just a Name of a Kibbutz: Ma'abarot Representations in the Israeli Culture, 1950–2015* (published in Hebrew, 2021).

Rían Kearney is a curator and researcher based in the Midlands. Working across exhibitions and live programmes, he founded *Queer Space Archive*, an initiative that looks to document Birmingham's under-recorded LGBTQ+ spaces. Currently a PhD candidate at The Bartlett School of Architecture UCL, supported by The Bartlett Promise Scholarship, his doctoral work considers how participatory drawing can be used to trace multi-layered histories of LGBTQ+ venues. He has previously worked as Assistant Curator at Nottingham Contemporary and Co-Curator at Recent Activity. His writing features in *Frieze* and *This is Tomorrow*, and he recently contributed a chapter to the book *Queer Exhibition Histories* (Valiz, 2023).

Mike Kwok's scholarship develops at the intersection of architecture and video game design. A recipient of the LAHP scholarship, Mike holds a Master's in Design Studies from the Harvard University Graduate School of Design as a HK Jockey Club fellow and a Master's in Architecture from HKU. A qualified architect, Mike engages architecture, urban histories, and video game design. Drawing from his experience in

game engines, he has cultivated methodologies that leverage video games for exploring novel architectural approaches. His research probes the potential of spatial narratives, film, and video games for storytelling and cultural productions. Mike co-teaches in The Bartlett's Design for Performance & Interaction MArch programme and the UAL Extended Diploma in Creative Media Production & Technology.

Patricia Rodrigues Ferreira da Silva is a Brazilian architect, holding a BSc in Architecture and Urbanism from the Pontifical Catholic University of Rio de Janeiro and an MSc in Architecture and Urban Design from Delft University of Technology. She has worked in architectural practice at different firms in Brazil and the Netherlands, in addition to her experience as curatorial and editorial assistant. Her background also informs her research interest in the relationship between political history and the built environment, currently explored in her doctoral studies at The Bartlett School of Architecture, with the support of the London Arts & Humanities Partnership.

Elin Söderberg is a registered architect based between London and Sweden. With a keen interest in the Swedish woodlands, her work seeks to explore the historical interrelationship between landscape, architecture and ecological understandings of matter. Elin holds an MArch and a BSc from The Bartlett School of Architecture where she is currently pursuing a PhD in Architectural Design, funded by the UCL Graduate Research Scholarship. Working across practice and research, her doctoral work draws on her previous experience as a London-based architect alongside her ongoing project restoring a timber building from 1873, located in a rural village in Hälsingland, Sweden.

Anna Talvi is a researcher and design engineer focusing on astronaut-spacesuit performance. She has an interdisciplinary background in mathematics, garment technology, design and computation. Anna has extensive practical

experience in advanced garment construction, manufacturing and bespoke tailoring. In the last years, she has given talks and lectures at the European Space Agency, Harvard University, the University of Toronto, the Architectural Association, the Design Museum and Design Indaba. Her doctoral research is supported by the Engineering and Physical Sciences Research Council and the European Space Agency.

Jonathan Tyrrell studied architecture at the University of Waterloo in Canada where he also taught as an adjunct professor from 2013 to 2020. He was an associate at Dereck Revington Studio in Toronto, where he led a series of award-winning public art projects and memorials from

conception through to fabrication. Prior to this, he worked extensively with Philip Beesley on the *Hylozoic Series*, developing specialised experience in interactive system design, digital fabrication and component design while leading complex installations at major art festivals across North America, Europe and Asia. Jonathan is currently undertaking a PhD at The Bartlett School of Architecture where he also teaches contextual theory and design in the Design for Manufacture MArch and Design for Performance & Interaction MArch programmes. His research is funded by the UCL Overseas Research Scholarship, The Graduate Research Scholarship, and the Social Sciences and Humanities Research Council of Canada.

Recent Graduates' Biographies

Dr Paul Bavister is an architect, researcher and academic. He is a Project Director at Flanagan Lawrence and Associate Professor at The Bartlett School of Architecture UCL, teaching on the Design for Performance & Interaction MArch programme. His work sits at the intersection of professional practice and academic research, forming a reciprocally beneficial triumvirate of teaching, research and practice. The work is multidisciplinary and based on the causal relationships between sound, music, architecture and acoustics. His research builds on innovative practices using both traditional methodologies of acoustic research as well as biometric sensing, evolutionary computation and neural networks, informing digital modelling processes. His work has been exhibited in the UK at the Tate Modern, the Science Museum, RIBA, the Barbican, and internationally at Ars Electronica (Austria), Finland and Japan.

Dr Ruth Bernatek is an architectural historian specialising in sound and the built environment. In 2024, she joined Warwick University as a Postdoctoral Researcher in Sociology. Previously, she was Postdoctoral Fellow on the ERC-funded project SONCITIES at Oxford University, having completed her PhD at The Bartlett in 2022. Ruth's doctoral thesis explored histories of audiovisual architecture since 1950, specifically the work of

architect-composer Iannis Xenakis. Since then, she has been studying sound's role in the politics of belonging and exclusion in contemporary cities. Her current work investigates socio-legal perspectives of sound in urban areas characterised by high degrees of difference, with a particular interest in acoustic welfare and justice systems.

Dr Chin-Wei Chang holds a PhD in Architectural and Urban History & Theory from The Bartlett School of Architecture, UCL, where he built on his unique blend of professional architecture and urban design expertise from Taiwan. His doctoral work examined the architectural profession and academy, emphasising design education's history and global spread in China, Europe, and the USA. Dr Chang is a Research Associate and Project Curator of 'China Builders' at Harvard University's Chinese Art Media Lab (CAMLab). He is a prolific author and has delivered lectures in several countries.

Dr Kerri Culhane's experience spans twenty years of award-winning professional architectural history, and curatorial and planning practice, focusing on the immigrant neighbourhoods of New York City's Lower East Side, including Chinatown, Little Italy, Two

Bridges and the Bowery. In collaboration with fellow Bartlett graduate Yin Kong (Urban Design MArch 2012), Kerri is currently co-curating the exhibition 'Paifang 牌坊: Gateways to a Past & Future Chinatown', which invites the New York Chinatown community to reflect upon the ways in which cultural memory and identity manifest in the built environment. It opens at the Think!Chinatown Studio (1 Pike Street, Manhattan) in May 2024.

Dr Judit Ferencz is a freelance illustrator and architectural researcher. She is currently contributing to the open-access project *Practising Ethics*. Her doctoral studies at The Bartlett School of Architecture were funded by the RIBA LKE Ozolins studentship. Previously she studied illustration at Kingston University in London and art history at ELTE University in Budapest. She taught illustration at the University of Nottingham, London Metropolitan University and City Literary Institute. She has worked as a freelance illustrator in literary publishing for clients including *Granta Magazine* and Random House, *Vintage Classics*. She contributed to the Survey of London's Whitechapel project through her practice of reportage drawing.

Dr Nina Jotanovic is an architectural designer who works at the intersection of design and chemical and biochemical engineering, with an expertise in biomineralisation and the perceptual effects of materials that can be grown. Nina has a cross-disciplinary PhD from The Bartlett School of Architecture and The Centre for Nature Inspired Engineering at UCL, where she investigated the growth of microscopically thin, yet three-dimensional, lustrous materials of biogenic origin. Her work has been published in *Paisajes* and exhibited at Construmat Barcelona, Biofabricate New York, Open Cell London and Ars Electronica Festival.

Dr Carlo Menon is an architect and researcher in history and theory, with degrees from La Cambre, Brussels (Diploma, 2006) and The Bartlett School of Architecture, London (MA,

2013, and PhD, 2023). His collaborative practice, mostly with his partner Sophie Dars, interweaves architectural thinking with publications (frequently), exhibitions (occasionally) and education (continuously). In particular, he has developed writing and editorial skills, whose outputs mostly appear in the magazine *Accattone*, which they co-founded. He currently teaches architectural design at La Cambre Horta Faculty of Architecture (ULB Brussels) and representation at the MA Civic Design (PBSA Düsseldorf).

Dr Chi Nguyen is a graphic communication designer working across the fields of graphic design, architecture and urbanism. She holds a BSc degree in Architecture from Carleton University, a Master's degree in Graphic Design from Central Saint Martins, University of the Arts London, and recently completed her PhD at The Bartlett School of Architecture. Her research explores and experiments with the role of publishing in communicating about the contemporary city. As a practitioner, Chi has led the communication efforts of award-winning architecture studios in Toronto, Canada, and has been involved in a number of design publications and exhibitions.

Dr Thomas Pearce is an architectural designer, researcher and educator based in Berlin. After teaching at The Bartlett School of Architecture and the Architectural Association, he was appointed Junior-Professor for Emerging Technologies and Design at the Bauhaus University in Weimar in 2022. His collaborative design research practice (www.thomaspearce.xyz) straddles the boundaries between architectural design and fabrication, historical reconstruction and speculation, performance and technological subversion. It takes shape within a changing network of collaborations with architects, designers, artists and performers. Thomas holds a BA and MA in Cultural History (KU Leuven) and a BSc (TU Berlin), MArch and PhD (Bartlett) in Architectural Design.

Dr Sol Pérez-Martínez is an architect, educator and postdoctoral research fellow at ETH Zürich. She is a qualified architect in Chile, with Master's degrees in Architecture and Architectural History, and a PhD in Architecture & Education from The Bartlett School of Architecture and the Institute of Education at UCL. Her last public building in Chile motivated her research about equity and education in architecture and architectural history, with particular attention to the experiences of women and marginalised groups. She has taught at The Bartlett and Universidad Católica de Chile and lectured internationally, including at the Whitechapel Gallery, Tate Exchange and Nottingham Contemporary.

Dr Matthew Poulter is an architect and urban historian. He trained in Interior Design at Duncan of Jordanstone College of Art, Dundee, and in Architecture at the University of East London. In practice, Matthew specialises in arts, heritage, and higher-education-led regeneration projects. His research explores the relationship between topographical forms of representation (maps, drawings, and written descriptions) and the layered nature of the historic built environment, an interest that was inspired by psychogeographic literature. Matthew completed his PhD at The Bartlett School of Architecture in 2021 – a study of William Leybourn's *Survey of Encroachments upon the Old London Wall (1676)*.

Dr Tony Presland completed his PhD in 2023 in the Architectural and Urban History & Theory programme at The Bartlett School of Architecture. He holds undergraduate degrees in Chemistry (Westfield College, University of London, 1984) and the Humanities (Open University, 2008), and Master's Degrees in User Interface Design (London Metropolitan University, 1993), Art History (Open University, 2013) and the History of Design (University of Oxford, 2017). He has previously served as Treasurer and Digital Secretary for the Design History Society. Tony is the Head of IT for Historic England in Swindon.

Dr Sarah Rivière is Senior Lecturer in Architecture at Falmouth University. Her research resurrects the *stasis* engagement from ancient Greece and develops it as a tool for fostering a located, yet lively, architecture of kindred confrontation, tempered by restraint. Sarah recently co-published *Dream – Play – Challenge: Facing up to the Crisis in Residential Living* (Berlin: Jovis) and the intersectional feminist *Survival Lounge and Berliner Architekt*innen: Oral History* (Berlin: TU Berlin) projects.

Dr Saptarshi Sanyal is an architectural historian, conservation architect, and educator in architecture. He is currently an Assistant Professor at New Delhi's School of Planning and Architecture. Saptarshi's research lies at the intersections of colonialism, architectural modernity, intellectual history, visual production, and the histories of work and production. His doctoral research at The Bartlett, UCL was supported by a Commonwealth Scholarship from the UK government. In 2023, Saptarshi's PhD thesis won an honourable mention at the University of California, Berkeley's South Asia Art and Architecture Dissertation Prize.

Dr Alessandro Toti is a historian of architecture trained in Rome and London. He holds a PhD in Architecture and Urban History & Theory from The Bartlett, UCL, with a research focus on West Berlin Marxist architecture groups at the turn of the 1970s. He has taught at UCL, Westminster, Greenwich, and the Rome Programmes of Cornell and Virginia Tech. He has published on the Italian neo-avant-garde movement and the West German architectural and political contexts. His main research fields include historical materialism, capitalism, socialism and 20th-century European architecture.

Dr Adam Walls worked in architectural practice before completing his PhD in Architectural and Urban History & Theory at The Bartlett School of Architecture. His work is interdisciplinary and brings together literary, visual and material

culture with new materialist, decolonial, queer and critical whiteness approaches to the built environment. His previous work on gender and atmosphere has been published in the *Architectural Theory Review*. He currently teaches at Greenwich and UCL, where he is co-author of the open-access curriculum '*Race' and Space* and an organising member of The Bartlett's Decolonial Reading Group.

Dr Seda Zirek is a researcher, lecturer, and designer specialising in co-creative digital design tools, design theory, digital fabrication, complex system definitions, and new methods of modelling and simulating using machine learning and evolutionary algorithms. She pursued her Master's degree in Architecture

at GSAPP, Columbia University. She worked as a computational advisor and senior designer for Rafael Vinoly Architects and Zaha Hadid Architects. She has taught architecture at various institutions, including Yale University, The Bartlett School of Architecture, and Columbia University. She is Lecturer in Architectural Design at London South Bank University.

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Submitted and/or completed doctorates 2023-24

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This catalogue has been produced to accompany PhD Research Projects 2024, the eighteenth annual conference devoted to doctoral research at The Bartlett School of Architecture, UCL, 20 February 2024.

Edited by Stylianos Giamarelos, Patricia Rodrigues Ferreira Da Silva and Jonathan Tyrrell.

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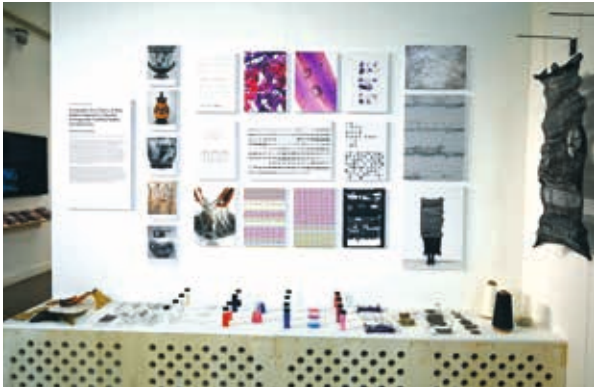
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PhD Research Projects 2024 is supported by The Bartlett Faculty of the Built Environment, UCL.



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Cover image: Earth Skin in situ during ground-based listening experiments - Ontario, Canada (Author: Jonathan Tyrrell, 2022).

ISBN 978-1-7392670-4-9



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