The Bartlett
School of
Architecture

Architectural History MA

Programme Information Sheet

This document provides details of the structure and content of this programme.

Programme context and history

Established in 1981, Architectural History MA at The Bartlett is the UK's longest-running and most prestigious Master's course in the historical, theoretical and critical interpretation of architecture, cities, urban spaces, creative practices and of their representations.

Over the past 35 years, the course has developed to prioritise the exploration of new and existing methodologies and critical theories as they might be applied to the study of architecture and cities. Rather than dealing with architecture exclusively through the work of famous individuals, landmark buildings, stylistic classification or normative categories, the course locates architecture within social, ideological, creative, political, material and technological, theoretical and urban processes. In doing so, it explores the boundaries of what might be regarded as constitutes legitimate architectural objects of study, and the effects of different modes of historical interpretations upon the discipline and beyond.

Programme structure

The programme is normally taught over a twelve-month period, during which students must complete and pass 180 credits. 120 credits are completed in approved taught modules, and 60 credits are gained from the dissertation module. Where relevant, students may replace 30 credits with another UCL department's graduate module, with the permission of the Programme Director and the respective department.

Teaching modes: Seminars are the leading teaching mode (teaching ratio of 1 to 15 students), together with lectures, one-to-one tutorials, group-working, writing workshops, research seminars, film screenings, reviews of student-work by staff and visiting researchers, building and gallery visits in London and further afield, and an annual field trip. Modules use advanced-level teaching approaches to encourage innovative student-led work. The final dissertation provides students with an opportunity to conduct their own original research into a specific subject of their own choosing.

Programme modules

Core modules (term 1: each 30 credits, assessment coursework term 1)

Critical Methodologies of Architectural History
This module reviews the range of methods and approaches open to the architectural or urban historian, critic and theorist, as well as the traditions from which each derives, and the controversies around them. Through a weekly lecture and seminar, students read and discuss works by a variety of architectural historians, e.g. Alberti, Banham, Colomina, Evans, Giedion, Forty, Hayden, Jacobs, Picon and Wölfflin.

Texts by authors including, Braidotti, Douglas, Foucault, Freud, Latour, Said, Spivak and Thompson on theories of history, aesthetics, materialism, subjectivity and technology are also studied. Seminars, readings and discussions therefore consider architectural history in relation to epistemologies, such as, biopolitics, semiology, psychoanalysis and postcolonialism.

Research and Dissemination of Architectural History
This module complements the more theoretical and historical modules of the programme by examining some of the more practical aspects of research,

development and application. The module investigates a variety of ways of working with, researching and communicating architectural history in order to allow different kinds of information, interpretations and audiences to be addressed. A series of weekly lectures and assignments explores alternative methods of researching (archives, drawings and models, photographs and imagery, oral history, internet and digital sources) and communicating (teaching courses, journalism, exhibitions, policy, sound and media broadcasting).

Optional modules (term 2: each 30 credits, assessment coursework term 2)

Architecture in Britain since the 17th Century
This module examines a range of built work in London and Oxford, and asks what kinds of historical and critical judgements can be developed from encounters with buildings. Each week the pattern consists of lengthy fieldwork visits followed by seminars in which the case studies are analysed in detail.

Works studied in any one year might include such projects as: St Paul's Cathedral, Chiswick House, Regent's Park, Barry's Reform Club, Butterfield's All Saint's Margaret Street, Unwin's Hampstead Garden Suburb, Tecton's Finsbury Health Centre, Camden Council's Alexandra Road Estate, Denys Lasdun's Royal College of Physicians, and Jacobsen's St Catherine's College Oxford. The module benefits from input by members of the world-renowned Survey of London team, now part of The Bartlett School of Architecture.

Representations of Cities
This module reviews the variety of ways in which cities have been conceptualised in recent urban and cultural theory. It introduces how the city and urban spaces can be understood as a set of differing cultural experiences: experiences of time, space, social identity, artistic interventions etc. Methodologically, the module introduces some of the main architectural and critical theories - such as the work of Castells, Debord, Hooks, Jacobs, Koolhaas, Le Corbusier, Lefebvre, Picon, Sassen, Simmel, Thrift, Whyte, Wirth and Zukin - relating to the experience of the city. In particular, the category of social space is introduced as an important concept which mediates between different disciplines, and links thinkers who have considered the intersection of buildings, cities and people.

Topics range from architectural and urban modernism to Situationist practices, urban design, ghettos, globalization, sexualities and informational & digital cities. The module also makes extensive of different modes of film to explore these ideas and issues, from Berlin: Symphony of a Great City and A Man With a Movie Camera to The Pruitt-Igoe Myth, The Fountainhead and Looking for Langston.

Theorising Practices: Site Writing
Through discussions of and engagements with different texts and projects, and the production of a piece of site-writing in the form of an installation and/or artist's book, this module examines the relationships between critical spatial practices and theories through a transdisciplinary perspective. Using seminar, workshop and presentation formats, this module introduces a wide range of critical spatial practices. By referring to a particular set of texts alongside examples of practice – historical and contemporary – this module encourages a consideration of the differing ways theory and practice relate –through analogy, analysis, application, dialectics, deconstruction, reflection, relation, speculation – wondering collectively how we might write architecture and the urban realm differently.

History and Theory of Digital Design

This module assesses the present state of computer-based design by situating today's digital turn within the long duration of the history of cultural technologies. It describes the technical logics of hand-making, mechanical reproductions, and digital making, highlighting the differences between digital variability, manual and artisanal variations, and the mechanical mass-production of identical copies.

Examples discussed include: 6 identical reproductions that were crucial in architectural history, and particularly on the early modern invention of architectural notations and of architectural authorship (the rise of the 'Albertian paradigm' in the Renaissance), and on the modernist principle of standardisation in the 20th century. A brief history of the digital turn and of its theoretical and technological premises is then outlined: from Post-Modernism and Deconstructivism and the Deleuzian 'Fold' to the spline-dominated environment of the 1990s; from free-form, topology and digital formalism to mass-customisation, non-standard seriality to more recent developments in digital interactivity, participatory making and building information modeling (BIM).

Lastly, it discusses the present state of digital design theory, particularly the issue of Big Data, its cultural and epistemological implications, and its consequences for the making of form (theories of emergence, self-organising systems, form-finding, material computation, complexity, and discretisation).

Materialist Ecological Architecture
This module examines the history and theory of materialist and ecological architectures from the Early Modern period to the present day, with reference to architectural, philosophical, aesthetic and ecological sources. It begins by examining concepts of matter, nature, biology and culture including: 17th century and 18th century European aesthetics and empiricism (Locke, Kant, Spinoza). Students then discuss 19th century materialism, together with early 20th century scientific texts on biological materialism (Darwin, Marx, Howard, Thompson, von Uexküll).

The module then explores post-war cybernetic, scientific and landscape practices from the 1950s-70s (Bateson, Buckminster Fuller, Carson, Banham). Finally, the module examines ecological history and theory from the 1970s to our current context of climate-change politics, including: feminist eco-politics, theories of transversality and ecosophy; biopolitical theories of human-nature, and anthropocenic or posthuman ethics (Haraway, Braidotti, Guattari, Bennett, Latour, Sloterdjik).

Multiple Modernities Architecture
This module questions conventional modernist historiography by exploring architectural encounters with modernity outside its dominant geographical, theoretical and professional territories. Students begin by situating current global modernist perspectives within a wider context, using the example of the West's encounter with China and Japan from the 18th century to examine the artistic and architectural consequences for East and West. Seminars focus on specific sites of architectural production and urban development including: Russia's initial attempt to open Manchuria; post-Meiji era Japan (the first non-Western country to modernise); Japan's creation of Manchukuo in the 1930s; and the pursuit of a national architecture in pre- Communist China.

In the second part of the term, students then explore examples that possess modern characteristics but have been overlooked by conventional modernist readings owing to their cultural condition, geographical setting or their professional approach. Case studies include: the enduring global modernity of Shanghai; pre-and postcolonial modernisms in Africa and questions of modernist heritage; peripheral modernisms

in Europe through the cities, such as Gdynia and Tel Aviv, and alternative modernisms in Britain through the architecture of Charles Holden and McMorran & Whitby.

Practices of Criticism
This module explores interdisciplinary theories of criticism and the practice of criticism within architecture and its related disciplines. Students examine how these approaches inform writing/practicing architectural historiography today.

The module begins by addressing the intersection of architectural theory and history with the history of architectural criticism in the 'modern' to 'high modern' periods (1940-1980) including: post-war Modernism within the British architectural press; the aesthetic, political and ideological motivations in architectural journal production through the work of Pigeon, Pevsner, Nairn, Nash, Piper, de Cronin Hastings. It then addresses Marxist criticism, Structuralism, semiology and phenomenology within the architectural criticism of late modernism, including, Banham, Colquhoun, Frampton, Rowe, Evans.

The second part of the module focuses on the postmodern turn, 'deconstruction' and the contemporary period including the impact of architectural criticism, and the relationships of word and image across print and digital formats in the late 20th and 21st centuries, and evolutions in critical theory, space and aesthetics from the 1970s to the present. It studies the impact of neo-Marxist, post structuralist, semiotic methods within practices of criticism (including Jameson, Krauss, Lyotard, Macrae-Gibson, Marin), and the critique of spatial practices as allegory, aesthetic, political unconscious, utopics. It concludes with recent reassessments of criticality in contemporary architectural and art criticism (e.g. Dovey, Foster, Heynen, Rendell, Stead): a so-called 'crisis of criticism'.

Students may also choose to take the following optional module:

Histories of Global London, 1900 to the Present
Taking London as our primary case study this module focuses on understanding how the city's built environment has been shaped by its global connections and associated population flows, from 1900 to the present. It considers the changing framework of planning and community development legislation at a number of definitive moments, such as the publication of the County of London Plan (1943), the dissolution of the Greater London Council in 1986, and the establishment of the Greater London Authority and Mayor of London in 2000, and the latest Draft London Plan published by Sadiq Khan in 2017.

The module draws on ethnographic, literary and visual sources to analyse key changes in the built environment in relation to the cultural representation of minority social groups. It will augment understandings of the significance of 'subaltern' community identities, ethnicities, cultural practices and intangible heritage in the formation of particular London neighbourhoods and built landscapes during this period, positioning the city's global histories and diversity as central to a critical understanding of its urban heritage and futures. The module asks students to engage critically with questions such as: how do we assess urban heritage as a social, cultural and economic asset for urban development in complex multicultural/postcolonial cities.

Drawing on the work of the transdisciplinary UCL Urban Laboratory, participants engage with key debates in the history and theory of urban change in relation to theories of identity, critical heritage, and equalities. Part 1 focuses on historical, theoretical and methodological contexts and is combined with Part 2 which focuses on fieldwork at an identified London site and/or archive and production of a related output.

N.B. All option modules have limited enrolment: please contact Professor Peg Rawes, Programme Director, for further information.

Dissertation module (term 3 and summer vacation: 60 credits)

Architectural History Dissertation with Oral Examination
This module requires students following MA Architectural History to submit a 10,000-word dissertation on a subject agreed with the teaching staff. Students choose a subject lying within the scope of the syllabus, making use of the techniques and methods taught in the course. During this module, students also participate in the programme's field trip, dissertation review seminars with invited international critics, and develop their study into a publication for the programme's end of year public research conference. The field trip takes place in mid-May, which all students are invited to join (not compulsory). This is normally to an EU city with significant architectural, urban, institutional and collaborator sights/visits.

Examples of recent dissertation topics include:

- Agency at the threshold: Maronage as subaltern spatial practice
- Summer Land to Winter Land: Time and labour in the Isle of Ely, 1634-1652
- Negotiations with Plants: the 'Garden in Movement' of Gilles Clément
- Terremoto in Palazzo: a disruptive historiography of the Vele of Scampia
- Residential Developments in Shanghai from 1949 to Present: the aspiration and manifestation of urban housing
- Art, architecture and the modern catholic church: William Mitchell's contributions to two British cathedrals, 1960-1973
- Family, leisure, and labour in Cedric Price's Housing Research, 1966-1973
- Generative Architecture Manifesto: Investigating the agency of the architect in digital architecture
- La Grande Brasserie du Levant: Beverage industry, drinking sociality, and recent gentrification in Beirut
- Reinventing the Prison: HMP Holloway, 1968-1978
- Rubble of Warsaw, 1939-1949: Histories of architectural remains in the annihilated city
- Social freedom and the elastic envelope in gender- specific spaces of Dubai
- The Architecture of the Internet: Discovering the aesthetics of London's data centres
- The failed BRECAST project in 1970s Britain and Chile

Extracts of dissertations are listed at the end of this document. Also see the annual Programme Symposium books here:
2018 Working Papers -
https://issuu.com/bartlettarchucl/docs/working_papers_book
2017 Building Ruptures - https://issuu.com/bartlettarchucl/docs/building_ruptures
2016 Disputed Architectures -
https://issuu.com/bartlettarchucl/docs/2016_10_21_disputed_architectures_-

Academic staff:
Programme Director – Professor Peg Rawes
Core academic staff – Professor Iain Borden, Professor Ben Campkin,
Professor Mario Carpo, Dr Edward Denison, Professor Barbara Penner, Professor
Jane Rendell, Dr Tania Sengupta and Dr Robin Wilson.

Associated academic staff: Dr Eva Branscome, Dr Polly Gould, Dr David Roberts,
Peter Guillery, Colin Thom and the Survey of London.

Alumni testimonials

Corinna Anderson
Writer and editor, Boston MA

I first heard of the Bartlett's MA Architectural History program as an unhappy mathematics undergraduate interning at the Art Institute of Chicago. A curator described the year she spent immersed in philosophy and critical theory with her cohort, and the lasting bonds she formed with architects, writers, and artists from around the world. Having newly discovered architectural theory and history, I was eager to find my way into this community, and the Bartlett was precisely the place I was looking for. The programme opened my scope of knowledge to a whole world of politics and social relations I had never dared to believe concerned architecture.

Coming from a different background than many of my classmates, the experience was often intense and challenging for me. Every step of the way, the polymathic faculty – who fold their backgrounds in anthropology, philosophy, and artistic practice into their teaching – encouraged me to experiment, and pushed my understanding of what it means to practice history today. For those interested in developing critical, political consciousness alongside a rich understanding of contemporary and 19th century architecture, the MA programme offers the intellectual provisions and a brilliant, curious community to explore with.

Jon Astbury
Deputy Architecture Editor, Architects' Journal

I often felt the title 'Architectural History' was an understatement to this programme. In a field as wonderfully amorphous as architecture, this programme draws upon all manner of cultural and spatial practice, with a student cohort from diverse backgrounds. While it is at times unnerving to study a discipline that is so variable, it is exactly this quality which made the teaching and seminars so dynamic and far-reaching, and gave the work we each achieved a genuine sense of purpose.

Kirti Durelle
Architect, UK/France

The MA in Architectural History was an excellent experience for me. When I applied, I had recently completed the training to become an architect in the UK, and I sensed a dire lack of critical thinking within the profession, about architecture and the work architects do. My previous undergraduate and postgraduate architecture studies had given me too little room to really pursue any research and writing ambitions - 'design' was always placed at the forefront, with theory and history mostly used as auxiliaries to support design decisions.

The Bartlett course allowed me to take a step back from this mode of thinking, and understand the biases that this design education had instilled in me. I was able to take the time to think critically about history and theory on their own terms, which opened up fundamentally new intellectual territories. I could suddenly reframe and broaden my understanding of architecture by looking at it from new angles, and asking of it the questions that I thought were relevant. The opportunity to develop my critical thinking and research skills was invaluable, on a professional level but even more so on a personal one. The faculty played a fundamental role in providing an open, safe and stimulating environment for discussion and learning, which I think is key to the course's success.

Tom Dyckhoff
Historian, writer, broadcaster: Architecture, cities, design & places

Studying architectural history at The Bartlett didn't teach me what such-and-such architect was building in 1867 and 1868, or whether rococo followed mannerism or vice-versa. You learn that along the way, and, in any case, that's what books and archives are for. No, instead, what is so inspirational and what was so pioneering about the course is that it teaches you a way of thinking about architecture and the built landscape. It teaches you to question. It teaches you not just to confront questions and buildings, but to look at them from other angles. It teaches you to be critical. As you go on through your career, whatever path you might take, developing this attitude to and way of thinking about architecture is far more important than simply knowing facts. Architecture here is not just about the physical object - although there are infinite and fascinating stories you'll explore and unearth about the landscapes we live in as they grow, develop and decay; it is a whole body and culture of knowledge.

Helen Castle
Publishing Director at the RIBA. Previously Commissioning Editor of AD and Executive Editor of Global Architecture at Wiley Publishing

The Bartlett MA offers an exceptional range of opportunities. It is unique as a History and Theory postgraduate course set in one of the world's leading architecture schools. There are countless chances to attend open lectures and a constant glut of events going on in London. It is, however, the excellence of the teaching and the seminar format that are transformative. You learn not only from the seminar leaders but also from what a smart and internationally diverse group of students bring to the discussion. This challenges your thinking and level of contribution. I undertook the course part-time after I had been working in architectural publishing for several years, it directed and brought a new focus to my understanding of modern architecture. Seventeen years on, it remains a constant touchstone for my learning.

Sarah Jackson
Townscape, heritage and design consultant, Professor Robert Tavernor Consultants, UK

I decided to do the History of Modern Architecture masters as I wanted to the change the direction of my career, from a practising architect to something I didn't then quite know what. The course did everything I wanted it to; it made me think about architecture in a different way, and it gave me the skills¬ – and confidence – to explore and express complex ideas. Perhaps more importantly, it allowed me the time to think, a commodity that is painfully absent in the commercial world. The combination of the practical aspects of being an architect and the academic qualities of an architectural historian has been extremely useful in my subsequent career. Since completing the Masters, I have worked as a Conservation Architect on extraordinary buildings such as the De La Warr Pavilion and CR Mackintosh's 78 Derngate, and I also spent 8 years at CABE, running the Design Review programme. I am now a Heritage consultant, providing heritage advice to major projects. Key to these roles are research skills, the ability to write with clarity and intellectual curiosity; all qualities that are brought out in the Masters course.

Harriet Jennings
Assistant curator, the Building Centre London

The Architectural History and Theory MA equipped me with an invaluable lens through which to understand and analyse architecture and the urban environment. Coming from quite a formal art historical undergraduate degree, the MA was challenging and liberating. The modules don't set you up to rote-learn the architectural cannon, but explode and reconstruct your understanding of 'architecture' and the contexts in which it exists. Tutors encourage independent research interests and writing practices, many of which still inform my work.

The cohort was incredibly inspiring and much was learnt through conversations inside and outside the seminar rooms, with multi-disciplinary backgrounds enriching my understanding of topics and methods of working. The Bartlett provides unparalleled resources – exceptional tutors, an influential work environment within the architecture school and many lecture series to engage with outside of study. It was an extremely rewarding year that accelerated me into the architectural sphere and has undoubtedly shaped my understanding of the built environment and directed my subsequent career path.

Hanan Kataw
Architect, researcher, PhD candidate at Harvard Graduate School of Design

My year at the Bartlett is without a doubt one of the most important experiences I've had that redefined my understanding of architecture and its histories. Coming from a background in Architecture Engineering, the MA Architectural History encouraged me to creatively rethink what I knew about architecture while providing me at the same time with the skills needed to rigorously tackle historically and theoretically challenging lines of research, skills that have been vital for my work since.

Studying architectural history at the Bartlett is not about the monumental buildings and the famous architects and historians, we did study some of those, but more importantly, we studied how to read beyond the descriptions and the dates, how to approach the archive, the text, and the architectural artifact, and how to investigate different histories and narratives. The conversations I've had with the staff and the cohort, while at the programme and after, still shape my career, my writing, and my approach to architecture and the world around me. The well-balanced structure of the programme guides you and keeps you on track, but its flexibility allows you to choose your own track to follow.

Isabelle Morgan
Assistant to the Director and CEO, Biennale of Sydney

I was extremely lucky to be a student on the Architectural History MA at the Bartlett. With its focus on critical thinking, theory and interdisciplinary explorations, the course transforms the way you think about architecture. It encourages creative experimentation in approaches to research and writing. It goes far beyond the definition and scope of a traditional approach to architectural history.

The course is intense, rigorous and challenging, with teachers and students from a broad range of cultural, professional and academic backgrounds. There are stimulating discussions and debates on issues, historic and current, surrounding architecture and society.

In my current role - at the Biennale of Sydney, a largescale contemporary art exhibition that spans the city of Sydney - key issues of architecture, the city, art,

exhibition-making, politics and ethics come up on a daily-basis. I am thankful for the critical tools I learned on the course, which have proved invaluable to expanding my research abilities and also in a professional working environment.

Davide Spina
PhD Candidate, ETH Zurich - Institute for the History and Theory of Architecture (gta)

I enrolled in the Architectural History MA in 2011, right after completing my Part I degree in Italy. As an undergraduate student I had heard great things about the course, but my experience far exceeded my expectations. At the Bartlett I found a way of looking at the built environment that was new to me.
The MA locates architecture within socio-economic processes and favours methodological pluralism over dogmatism, interpretation over the simple learning of facts, everyday objects over canonical works, and accessibility over elitism - an approach that immediately resonated with me.

As a student of the programme you will learn to think creatively about architecture, produce original ideas, and develop your own intellectual interests - regardless of whether your aim is to become a scholar, critic, curator, journalist, or return to practice. This is in part due to the course structure, which is designed to provide you with a solid grounding in a number of fields, mainly critical thinking, research, writing, and knowledge dissemination. My tutors were world authorities in their areas, my colleagues were individuals with different backgrounds from all over the globe, and the environment was collegial and collaborative, a mix that made for a fantastic learning experience. In addition, as part of the UCL community I enjoyed access to libraries of the highest quality and to a vibrant college life, both of which helped me broaden my horizons and, eventually, produce better work.

Location also counts in the success of the programme: the Bartlett is nestled in the heart of London, so the MA benefits from a kind of 'special relationship' with the city, whose past and present have so much to say about architecture and its role in society. Attending the Architectural History MA was key for my development as a scholar. I cherish my experience in the programme and still use what I learned there every single day.

Dissertation Showcase

Fariha Faruque 2018
The Performance of the Page as a Site of Architectural Discourse

While architecture is perceived through its materials, spaces, forms and details, it is explained, illustrated and disseminated almost entirely through its representation on media. The page as a surface of representation—with all its graphical notations, materiality, textuality, imagery and 'intrusion of visual form' into its spatial extensions—plays a powerful role in communicating to the reader what it documents (R. Allsopp, 'Itinerant Pages', Performance Research, 9/2, 2004, p.4). The page is, therefore, not only a medium of documentation, but a dynamic plane of performance that becomes a site of architectural history and criticism (J. Rendell, Site-Writing, 2010, p. 17).

In this dissertation, the page is examined as an active site of architectural discourse. The content of the subject matter is studied through its relation to the graphics of the page on which it is documented, thus exploring new ways of understanding the work. In order to understand the role of the page as a medium of architectural representation and criticism, this dissertation engages with published and unpublished works of Alison and Peter Smithson, who were not only the key propagators of a radically new movement, 'New Brutalism', but despite having few built projects, produced an extensive archive of meticulously composed and documented writings which deployed graphical annotations on the page to divulge important architectural issues (S. Parnell on the Smithsons, Architectural Review, Jan 2012).

The Smithsons propounded the 'as found' aesthetic through their built and written works, exploring the ways in which the 'ordinariness of everyday' aspects could be evident in architecture (D. Robbins (ed.), The Independent Group, 1990). Their developing awareness towards different environmental and technological aspects influencing architecture, such as the automobile, climate and social cohesion, would translate onto the surface of the page through various graphical notations, aimed at communicating to the reader their theories and principles of designs. To investigate this relationship between their architectural perspectives and the performance of their pages, the Smithson's CIAM 10 scroll and the pages of Alison Smithson's books, AS in DS: An Eye on the Road and Imprint of India are critically examined, exploring new ways of understanding the subject matter in relation to architectural history and theory.

At the CIAM 10 conference in Dubrovnik in 1956, the Smithsons gave each member of Team 10 a metre-long scroll that was designed in their symptomatic graphics, combing cluster diagrams, ideograms and texts to communicate a unified language of architectural treatise (C. M. Boyer, Not Quite Architecture, 2017 p.389. Likening the surface of the scroll to a physical architectural site, the Smithsons made their erratic graphics on the page analogous to the 'random aesthetic' of their proposed irregular town patterns. With a growing interest in urban design, the Smithsons attention extended to post-industrial developments that were beginning to change the relationship between people and location. During the 1970s–80s, Alison Smithson wrote AS in DS: An Eye on the Road, relating the sensibility of a passenger in a moving vehicle to the picturesque post-industrial landscape (A. Smithson, AS in DS, 1983). Highlighting the linkage between automobiles, architecture and ecology in a post-industrial society, she transformed the page into a site of spatial hierarchies of texts, drawings and photographs. Eventually, with a heightened awareness of the environment, the Smithsons' attention broadened towards climate and location, which led Alison Smithson to write Imprint of India in 1994, narrating a young British girl's experience of travel in India (A. Smithson, Imprint of India, 1994). With an overlay of 'as found' images, drawings and textuality, the pages of Imprint in India become a trope for the various overlapping impacts of environment, climate, culture and locality on a person, which in turn influence the built environment.

The Smithsons' use of the page reflects their 'as found' aesthetic of the ordinariness of daily life, not just through written descriptions but perhaps primarily through the raw qualities of their graphics, which continuously evolved along their expanding sensibilities. Through characteristic semiology, the Smithsons conveyed architectural philosophies while also underlining the ongoing architectural debates of the time. This performative role of the page, created through the abstraction of ideologies, is key in obtaining a holistic perception of the subject matter and its context, enabling new ways of comprehending architectural history and theory.

Architectural representations are in perpetual shift between the 'status of artefacts and the delineation of processes' (P. Riahi, 'Expanding the Boundaries of Architectural Representation, Journal of Architecture, 22/5, 2017, p.824). The Smithsons' performative graphics transformed the page layout work into productions of art, simultaneously demarcating the distinct emergent architectural ideologies regarding war, social relations, mobility and climate, as the CIAM 10 scroll, AS in DS and Imprint of India illustrate. Performative representation engenders thus a shift from 'the architectural object to the architectural system', which shows that beside pragmatic, building or functional requirement, architecture is also 'the "image" or "symbolic expression" of a society that defines itself in scientific terms' (ibid, p. 823). This symbolic expression takes over the surface of the page, transforming it into an extraordinary site of architectural discourse and a dynamic space of performance.

Joe Crowdy 2017
Land, Water, and Time: the Administrative Architecture of the Cambridgeshire Fens in the early 17th Century

At the beginning of the 17th century, the landscape of the Cambridgeshire fens had been under construction for several centuries. According to international investors – keen to speculate on the improvable value of the fens – this landscape had been 'abandoned to the will of the Waters,' and consequently lay 'wast and unprofitable' (Sir Vermuyden, London, 1642). But this image of an untended wilderness bore little relation to local reality. The spatial arrangement and social programme of this patchwork of reedbeds, summer grazing meadows, and eel-filled meres was in fact carefully engineered to provide a rich variety of resources, through a long-standing network of administrative technologies and customary practices. This productive environment was designed and constructed, I argue, through particular temporal regimes of administration, governing the effective function of waterways and distributing rights and privileges on farmland.

Water: the temporality of commissions of sewers
Systematic water management was vital to the maintenance of an inhabitable fen landscape. Flood-prevention protected agricultural land and homes, and the fenland economy depended on the predictable flow of waterways, for transporting people and goods. The fluctuation of river currents demanded a responsive temporality of administration that could gather information on the state of channels, take decisions, and physically enact these decisions. Since the 13th century, this process had been the responsibility of local commissions of sewers (H. G. Richardson, English Historical Review July 1919). Through a legal mechanism of court sessions and neighbourhood juries, the commissions directed the labour of local inhabitants to maintain drainage infrastructure. The success of this process depended on the imbrication of the commission's operational rhythms with other regulatory temporalities of the landscape, through a punitive regime of deadlines, and by exploiting a network of local officials.

Court and view - rhythms of decision making
The temporality of the commissions was constituted through the correspondence and conflict between its two main subsidiary rhythms, pertaining to its internal decision-making processes, and the external activities it directed. The former rhythm initially appears a lifeless and bureaucratic realm of minutes and reports. A close reading of the paperwork produced by commissions, however, reveals a distinctly performative and spatially situated pattern of operation. The records of a series of sessions held at Cambridge's Guildhall demonstrate the regulation of embodied attendance as the dominant rhythm of court business (Sessions of Sewers 1639-40).

Local constables and community representatives were summoned to court to give testimony or hear orders, under pain of exponentially increasing financial penalties. Absent from the documentation of attendance and assembly are the journeys to court required to avoid a fine of contempt, or the everyday rhythms which attendance must have interrupted, present only in the inscriptions of absentees: those for whom a fine was perhaps a lesser hardship than a break in their routine. Whilst its decision-making practice was confined to the courtroom, the commission extended its power out over the landscape, into the fields, fens, and lives of its inhabitants, through this regime of deadlines.

Breaking court time
Over the course of six months, these sessions record only two occasions when missed appointments were not penalised. In one case, a juror was 'subpoened up' to attend a higher court in London (ibid.). In the second, the obligatory work of scouring ditches for every inhabitant of Thriplow was excused only because 'the small pox is so rageing in that towne they have no persons to perform the workes' (ibid.). These allowances for non-compliance demonstrate the limits of the power of commission time – the biological or legal forces that surpass the court's normal rule over the lived rhythms of its subjects.

Records of wrongdoings expose specific ruptures to commission time. Several orders prescribed the duties of millers from the three watermills within Cambridge at the time, regulating their harmonious use of the river's energy through 'law stakes' (measuring water height), and a 'mill horn' (ibid.). The mill horn regulated the operational rhythm of the three mills, in order to share the flow of a single watercourse. Since at least 1570, Newnham Mill was forbidden from operating before the horn at the King's Mill has been blown, and was obliged to halt work on a later sounding of the same horn. The mill horn's authority was seriously undermined in 1634 by miller William Loe. In June that year, Loe and five other men had been found illicitly drawing water away from the other mills. In July and August, Loe set Newnham Mill to work when the other two mills 'did stand for water and had bloen the horne before' (University of Cambridge Guard Books). Worse, Loe was later caught by rival millers, 'in the night goen with one mill after the horne hath been blone and againe before the horne.' This accusation links the rhythm of horn blowing not only to the requirements of the other mills, but to the regular cycle of the day – the horn apparently signalling a night-time curfew. In the most flagrant disregard for the rhythm enforced by the commission, Loe installed his own, entirely independent temporal regime of horn blowing and mill 'going':

> Loe... hath two boyes and they have a horne, which they bloe at their pleasure at all seasons both night & daie, and although it be not halfe a pond, upon the bloeing of their horne, they will sett their mills on worke, contrarie to the order concerning the bloeing of the horne (ibid.).

Harriet Jennings, 2016
Unsanitary and Unsavoury: Housing on
Robin Hood Lane

The degeneration and regeneration of housing on Robin Hood Lane in Poplar, Tower Hamlets, has long been instigated by health concerns. In March 1879 the East London Observer celebrated the impending demolition of 'one of the most unhealthy rookeries in Poplar' which was replaced with James Hartnoll's Grosvenor Buildings in 1885. These in turn fell into unsanitary conditions, recorded as 'foul' and overcrowded by sanitary inspectors by 1901.

Purchased and demolished by the Greater London Council in 1965, they were replaced with Alison and Peter Smithson's 1972 Robin Hood Gardens public housing estate. The reduction of residents' exposure to traffic pollution and the provision of a central green envisaged as a 'stress-free zone' and the 'lungs' of the estate were at the heart of their designs. However, despite the vision of a better way of life promised by the Smithsons' scheme, since its completion Robin Hood Gardens has acquired increasingly negative associations.

Indeed, Nikolaus Pevsner described the project as 'ill-planned to the point of being inhumane' (Pevsner 2005). The apparent failure of the Smithsons' buildings to embody the health ideals of their architectural vision can to a great extent be attributed to the unpopular material properties of the concrete blocks. The blocks embody the Smithsons' objectives of New Brutalism, which aspired to 'drag a rough poetry' out of the ordinary.

However, Pevsner described the finish of the precast blocks as threatening 'rough and tough shuttered concrete' (Pevsner). Adrian Forty notes such adverse reactions to concrete, observing 'an element of revulsion seems a permanent, structural feature of the material' (Forty 2012). Forty links this response to concrete's fluid material properties and changeable liquid/solid state – preventing people from comfortably defining it or its perimeters. In 1966 anthropologist Mary Douglas defined dirt as 'matter out of place'. Douglas wrote that 'where there is dirt there is a system' and speculated perceptions of dirt and pollutants arise from 'a contravention of that order' (Douglas 1996). In light of her analysis that we dislike things that cut across clear categorisation, finding them intolerable for defying the symbolic systems by which we live and which dictate our attitudes to hygiene, the negative reactions to concrete's fluid properties are understandable. Thus concrete is identifiable with dirt, a view supported by the fact 'béton,' French for concrete, derives from the old French 'betum' meaning 'rubble, rubbish, or dirt' (Calder 2016).

It is interesting to consider how these formal attributes of concrete can contribute to perceptions of post-war estates, and those who live in them, as dirty, diseased and marginalised. Even Barnabas Calder, author of Raw Concrete: The Beauty of Brutalism, recounts that when growing up concrete architecture represented 'everything which was frightening and other' – identifying the architecture and its inhabitants as contravening the accepted social order and posing a threat to the normative populace. In Geographies of Exclusion, David Sibley proposes that the relegation of defiled members of society who are 'judged to be deviant, imperfect or marginal' to defined areas such as council estates is how 'exclusionary, purified social space' is created and maintained by the powerful in society (Sibley 2011).

Separations are exacerbated by the stigma attached to council residents, as elucidated by Lynsey Hanley who notes that 'the word "council" has become a pejorative term' used 'to ridicule people's clothing, their hairstyles, their ways of speaking' (Hanley 2007). Such judgements resemble those made by social investigator Charles Booth of the Robin Hood Lane site in 1897 and have inherent class implications as the socio-economically disadvantaged are less able to conform to bourgeois norms. In his notes Booth described the streets around the Grosvenor Buildings as 'all evidenced of their being of the poorest and roughest' (Booth 1897). He makes this assertion from the fact that there were many 'bootless children, unwashed steps, no flowers in the front window' which he attributes to 'official laziness'.

Booth's categorisations seem unfounded and moralistic, as he branded people as 'rough' or in a poverty band of 'semi-criminal' based on the visual appearance of their built environment. This has remarkable resonance with former Prime Minister

David Cameron's 2016 assertion that a certain kind of architecture nurtures a criminal class. He proclaimed that the 2011 rioters 'came overwhelmingly from these post-war estates' as they encourage 'social problems to fester and grow unseen,' and called for social reform to begin with the metaphorical and physical cleansing of the built environment. Both Booth and Cameron's explanations for poverty and social strife are rooted in the visual impression of the built environment and they reveal how powerful perceptions of dwellings as imposing, neglected or dirty are in shaping the popular reputation of an area and its residents. Sibley identifies such judgements as originating from 'the opposition between purity and defilement'. Although wary of Douglas' cross-cultural generalisations, her observations of socio-spatial practices devised from concepts of dirt can be applied to contemporary western societies to explain the 'boundary consciousness' explicit in Booth and Cameron's assessment of the built environment (Sibley).

The Robin Hood Lane site makes East London inequalities explicit as the Smithsons' neglected, New Brutalist, Welfare State estate stands in stark contrast to the clean, prosperous, neo-liberal architecture of encroaching Canary Wharf. As former resident Abdul Kalam asserted, 'Canary Wharf dictates East London now… And Robin Hood Gardens is too close to Canary Wharf. It's like an eyesore' (Brennan 2015). The estate is facing impending demolition and regeneration by Swan Housing association, which it is feared will increase the number of private units and replace council tenancies with insecure 'affordable' housing. Therefore not only will the regeneration cleanse the site of the Smithsons' gritty architecture, but could potentially exile the local working-class community as the site becomes desirable for city workers. As resident Nicholas Ruddock identified, tenants 'are seen as less valuable, in a sense diseased –' implied by the dehumanizing term 'decanted,' used to describe their removal from the buildings and the area (Brennan).

Specific material and social relations reveal how notions of pollution and the abject elicit stigma which prompts phases of architectural and social change on the site. Thus concepts of dirt and pollutants permeate its social and architectural fabric, with manipulation of the built environment historically perceived as a mechanism of socio-economic change. This has had different political motives and embodied varying State attitudes towards the care of the population. Yet the repetitive nature of the cycles of de- and re-generation on the site, explicated by this metaphor of dirt and pollution, reveal that changing the physical form of the built environment has never succeeded as an alternative for deeper socio-economic change.

Grainne Hebeler, 2015
The Alphabet is Dead: Long live the alphabet!

The beauty of Arabic calligraphy is not easily integrated into modernity. It has not been straightforward uniting the major technological advances of the past millennia, specifically the printing press and computerised digitisation with an alphabet used by Middle Eastern culture. The slowness to adopt these seemingly beneficial technologies is due to numerous structural challenges in the written form of Arabic rather than a cultural aversion to technology.
Unlike Latin languages where there are only two forms of a single letter, Arabic script is vastly more complex. Arabic script requires letters to be joined together to make a word, while each single letter has at least four different forms that change depending upon where it is placed. After the unveiling of Gutenberg's printing press, it became apparent that the complexity and financial investment to produce Arabic movable type far exceeded that of a Latin movable type alphabet and thus, very few printed works were published (Mata'a; Roper; Vrolijk).

The initial presentation of the printing press to the Middle East did not help either. The first full book printed in Arabic was a Psalter called Kitâb salât al-sawâʾî (1514), a book of daily prayers, ordered by Pope Julius II for the Greek Orthodox Christians of the Levant. For Muslims and religious leaders this was an affront to their religion and their understanding of written text as being "God's word." It was in opposition to the infiltration of Christian texts into the Muslim world that prompted the Ottoman Empire at the end of the 16th century to declare an almost across-the-board ban on printing of any type (Szyliowicz).

Where the West transitioned quickly to a printed system, the Middle East functioned in an oscillating relationship between modes of oral and written composition. Oral tradition has a long history in the Middle East and was understood to be greater than or equal to calligraphy in some cases, especially in regard to recitations of the Quran. As seen in the verse below, "The medium [as] the message" is clearly bridged in the way Quranic verses were learned and passed on (McLuhan). Adjoining oral recitation, writing was not necessarily the means for disseminating information but was intended for visual appreciation of the holy book of the Quran, something that sets it apart both aesthetically and culturally from the Bible, which was stamped and duplicated mechanically almost entirely without this vision (Abi-Farés).
Digitisation.

From the 1960s until the late 1980s, the transition timeframe from analogue to digital, Arabic script was faced again with similar problems as when the Gutenberg printing press was introduced. Regardless of lingering difficulties with physical print technologies, the adoption of digital computing still had fundamental incompatibilities with Arabic. Attempting to insert Arabic script into the existing Western computing model, with English as the overarching language for coding, proved troublesome. It was not until the introduction of Unicode in 1987 that Arabic script would be supported.

Interestingly, since the 1990s, Western text-based communication technologies have become well established in the Arab world. During the transition period, most (including but not limited to the Internet, PCs, bulletin board systems, forums, email, instant messaging, and SMS) only support communicating via languages in Latin script (Encyclopedia). To this day some technologies do not support Arabic as an option. This limitation has resulted in Arabic speaking users usurping Latin script to transliterate Arabic to English. Clever workarounds, such as Arabizi, have been created for convenience and coherence. Arabizi, the slang term used to describe a popular writing system based on substitution that uses Latin letters and numbers to form and symbolise Arabic, can be conservatively interpreted as a direct affront to Middle Eastern culture (Yaghan). Many users of mobile phones and computers still write in this language code even when their platform supports Arabic script.

Yet, the virtual medium offers the promise of a more malleable interface for design strategies. Not only has Unicode offered Arabic script a place in the digitisation of written language, but other technologies revolving around audio-based communication are paving the way for the future of orality in the Middle East.

Conclusion

Although it appears that the Middle East's lack of participation in printing history should inhibit its interaction with the modern age's digital format, it can actually be seen as a benefit. Where the West has become entrenched by the interiorisation of written composition, the Middle East is not self-limited by this transition because of a different history of development – nurturing its calligraphic art form through religion, as well as maintaining an emphasis on its cultural history of oral recitation.

There is now the technological know-how and social interest in representing Arabic script on the digital platform in more ways than one. It is growing – most significantly due to the nature of digital technologies; it would appear that Arabic script development has the potential to "leapfrog" forward and lead the way in virtual arenas, both written and oral. However, the written word is becoming less and less of a dominating factor in the progression to the modern computing age, which positions the Middle East with an advantage, given its cultural heritage and the present day push to digital orality. Perhaps as audio-based computing improves, the alphabet may become a point of nostalgia. It may not be technically needed for communication in the future, if mechanised android voices verbally convey information. For cultures like those of the Middle East, and particularly cultures that are Muslim, this connection between image, text, oration and dissemination of knowledge remains paramount, and moving forward is a relevant model for the digital paradigm.