

‘THE INFLUENCE OF FRY AND DREW’ CONFERENCE AT THE SCHOOL OF ARCHITECTURE, LIVERPOOL UNIVERSITY

THURSDAY 10TH – FRIDAY 11TH OCTOBER 2013

CONVENED BY JESSICA HOLLAND AND IAIN JACKSON

KEYNOTES

Hilde Heynen, ‘Modernism, colonialism and feminism: Theoretical reflections on the entanglements in the life and work of Jane Drew’

Elizabeth Darling, ‘The Conditions for an Architecture for To-day: A discussion of the inter-war architectural scene in England’

Jiat-Hwee Chang, ‘Contextualizing Fry and Drew’s Tropical Architecture: Climate as Agency’

Session One – TRANSITION

Vanessa Vanden Berghe, ‘Aspects of Collaboration in the Work of Oliver Hill and Maxwell Fry’

Thomas Wensing, ‘Fry and Goldfinger: A comparison between two CIAM models of high-rise housing’

Alan Powers, ‘Maxwell Fry and Jane Drew: The Romantic Turn’

Session Two – POST-WAR BRITAIN

Christine Hui Lan Manley, ‘Modern City versus Garden City: Housing at Harlow New Town’

Jessica Holland, ‘Jane Drew: Material and artistic innovation in post-war London’

Barnabas Calder, ‘Cohabitation or collaboration? “Drake and Lasdun of Fry Drew Drake and Lasdun”’

Session Three – FRY & DREW IN THE TROPICS

Viviana d’Auria, “‘The most difficult architecture to create’”: Fry, Drew and Partners’ contested legacies and the vicissitudes of low-cost housing design in (post)colonial Ghana’

Tim Livsey, ‘Fry and Drew at Ibadan: rethinking the “colonial modern”’

Rana Habibi, ‘From the Anglo-Persian Oil Company Towns to Modern City Neighbourhood Units in Tehran’

Session Four – CLIMATE & PEDAGOGY

Jacopo Galli, ‘Edwin Maxwell Fry and Jane Drew: Architecture as a Climatic Device’

José Luís Possolo de Saldanha, ‘Luís Possolo: The Portuguese-speaking Architect at the first AA Course in Tropical Architecture’

Irene Sunwoo, ‘Environmental Design Pedagogy at the Architectural Association’

Daniel Barber, ‘Designing with Climate in the Suburb: Olgyay and Olgyay and the American Influence of Fry and Drew’

Session Five – CHANDIGARH

Antony Moulis, 'Designing with landform and climate: Fry and Drew's contribution to the Chandigarh master plan'

Christina Papadimitriou, 'Houses of Chandigarh'

Iain Jackson, 'Chandigarh: Fry and Drew's non-residential projects, from nursery school to printing press'

Claire Louise Staunton and James Price, 'Subverting Modernism through autonomous urbanism'

Session Six – LEGACY

Yemi Salami, 'Fry and Drew's influence on Colonial Public Works' Architecture in Nigeria'

Jorge Figueira and Bruno Gil, 'Dry and Humid and Everywhere: The Work of Amancio (Pancho) Guedes in Mozambique'

Ana Tostões and Zara Ferreira, 'How to be Modern and Design with Climate: Fry and Drew's legacy and the School Programme in Mozambique (1955-1975)'

Robert Home, 'Theory and practice, global and local: The career of David Oakley'

Session Seven – REASSESSING TROPICAL ARCHITECTURE

Lukasz Stanek, 'Tropical Architecture as Cold War Discourse in Post-Independence Ghana (1960–66)'

Rachel Lee, 'Searching for the Social in the Tropical'

Ola Uduku, 'Rediscovering Fry and Drew's "Tropical Design" within the contemporary frame'

OTHER EVENTS

Screening of '12 Views of Kensal House' (1984), with an introduction by filmmaker Peter Wyeth.

Exhibition of recent photographs of Fry and Drew's work at Ibadan University, by photographer 'Deyemi Akande.

Tour of Maxwell Fry's Civil Engineering Building (1955–60), Liverpool University.

KEYNOTE 1

Modernism, colonialism and feminism: Theoretical reflections on the entanglements in the life and work of Jane Drew

Hilde Heynen, KU Leuven

The entanglement between modernism and colonialism has been a topic of serious consideration in recent decades. Following the lead of Edward Said, it is argued that colonial discourse was intrinsic to European self-understanding: it is through their conquest and their knowledge of foreign peoples and territories (two experiences which usually were intimately linked), that Europeans could position themselves as modern, as civilized, as superior, as developed and progressive vis-à-vis local populations that were none of that. The crucial – if often only implicit – role of colonial discourse in the endeavour of modernism thus has to be acknowledged. Likewise it seems that modernism and feminism are in some sort of entanglement: they share – at least – the ideals of emancipation and liberation for all, although it is also clear that modernist discourse favours male protagonists and masculine interests.

Jane Drew as a person and an architect found herself in the midst of these entanglements. As a committed participant in the Modern Movement, she was engaged in questions of housing in the UK as well as elsewhere, in British colonies or ex-colonies. Her commitment to the Modern Movement was not contradictory to, but rather continuous with her service to the colonial state. Her involvement in the construction of Chandigarh was also consistent with the hegemonic position of modernism, criticized by later postcolonial thinkers. As one of the very few active woman architects of her generation, she must have encountered quite some antagonism and sexism from colleagues, clients and superiors.

This lecture will ponder these entanglements, inquiring about Jane Drew's position as a woman architect in the tropics, investigating whether the 'colonial' conditions offered her a kind of laboratory for deploying her full capacities as an architect, which might have been more difficult in the more conventional environment of the UK. The lecture will not focus on the life and work of Jane Drew as such, but rather use these as a starting point for developing some theoretical reflections.

Hilde Heynen is Full Professor and Chair of the department Architecture, Urbanism and Planning at the University of Leuven. Her research focuses on issues of modernity, modernism and gender in architecture. She is the author of *Architecture and Modernity. A Critique* (MIT Press, 1999) and the co-editor of *Back from Utopia. The Challenge of the Modern Movement* (with Hubert-Jan Henket, 010, 2001), *Negotiating Domesticity. Spatial productions of gender in modern architecture* (with Gulsum Baydar, Routledge, 2005) and *The SAGE Handbook Architectural Theory* (with Greig Crysler and Stephen Cairns, Sage, 2012). She regularly publishes in journals such as *The Journal of Architecture* and *Home Cultures*.

KEYNOTE 2

The Conditions for an Architecture for To-day: A discussion of the inter-war architectural scene in England

Elizabeth Darling, Oxford Brookes University

Taking its cue from the title of a 1938 lecture by Wells Coates, this paper considers the conditions that created the generation of architects in inter-war England that included Jane Drew and Maxwell Fry. Its ultimate concern is to offer some conclusions about how such conditions shaped Fry and Drew's desire to transform space and society in particular, and, at a broader level, the nature of English modernism as a whole.

The paper will explore several conditions in order to achieve this goal. Chief among them are the educational contexts in which Drew and Fry studied, and hence what this might tell us about the modernisms they would practise. Among the earliest of the generation of women to train professionally, Drew attended the Architectural Association at a time when it was just beginning its shift towards a more avowedly 'modern' stance. Fry, by contrast, was a product of the Liverpool Beaux-Arts system that the AA would eschew not long after Drew graduated. Important too, were the intellectual milieux which the pair inhabited, and their friendship networks. This is evident in the comradeship of Coates and Fry, an alliance forged following their first meeting some time in 1923-4. Out of this emerged a commitment to training themselves in modern culture and to make connections with allied avant-garde groups, a strategy which allowed them to become the natural leaders of an institutionalising English modern movement. Drew, likewise, shared a network of progressive friends – such as the Communist architect Justin Blanco White – an engagement particularly with modern art, and an equal skill at organisation and propagandising, something which did much to keep the movement alive during the war years.

Referencing other collaborations, and key inter-war architectural projects, particularly by Fry, the paper concludes its concern to contextualise the English side of Drew and Fry's modernism.

Elizabeth Darling works on 20th century British architectural history with a particular interest in inter-war modernism, social housing, and gender. She has published on the nature of authorship in the design process; the innovative practices of the inter-war voluntary housing sector, the housing consultant Elizabeth Denby and the relationship between citizenship and the reform of domestic space in inter-war Britain. Her book, on British architectural modernism, *Re-forming Britain: Narratives of Modernity before Reconstruction*, was published by Routledge in early 2007 while an edited volume (with Lesley Whitworth), *Women and the Making of Built Space in England, 1870-1950* was published by Ashgate in autumn 2007. Her research focuses on three main areas: the link between urban renewal and social (especially child welfare) reform in the slums of Edinburgh in the early 20th century; the arena in which progressive ideas about design and space were developed and disseminated in 1920s Britain, and an in-depth study of the work and life of the architect-engineer Wells Wintemute Coates, which research is supported by funding from the Paul Mellon Centre for the Study of British Art and the RIBA Research Trust. She is most recently the author of *Wells Coates*, published by the RIBA in collaboration with the 20th Century Society & English Heritage (2012).

KEYNOTE 3

Contextualizing Fry and Drew's Tropical Architecture: Climate as Agency

Jiat-Hwee Chang, National University of Singapore

Influence acts in both directions. While Maxwell Fry and Jane Drew were indeed influential figures in the fields of modern architecture, town planning and tropical architecture, they were undoubtedly also shaped by various forms of external influences. This paper will explore some of these influences on Fry and Drew. The focus of this paper is, however, not so much on the influence of personae – such as teachers, mentors, patrons, colleagues and friends of Fry and Drew – but with the conditions of possibility – specifically historical structure, socio-political conditions and technoscientific infrastructure – that shaped the ways Fry and Drew produced tropical architecture in Africa and Asia during the mid-twentieth century.

Through a close reading of two books by Fry and Drew – *Village Housing in the Tropics* (1947) and *Tropical Architecture in the Humid Zone* (1956) – this paper seeks to understand what were the influences on Fry and Drew's discourse and practice of tropical architecture. Broadly speaking, this paper will explore two main forms of influence on Fry and Drew. One, it situates Fry and Drew's tropical architecture in the longer genealogy of European, particularly British, buildings in the tropics. While Fry and Drew's work in the tropics contributed to the institutionalisation of tropical architecture in the mid-twentieth century and was posited as something new and modern, this paper argues that their work was inextricably linked to prior colonial "tropical architecture" and, in particular, carried historically sedimented meanings of tropicality. Two, this paper locates the influences on Fry and Drew's tropical architecture within the mid-twentieth century moment. Specifically, it shows how Fry and Drew's tropical architecture was undergirded by the technoscientific infrastructure of building research in climatic design. This paper also argues that the socio-political conditions of decolonisation and development in the British Empire/Commonwealth facilitated Fry and Drew's production of tropical architecture.

Drawing on the notion of what science studies scholars James Rodger Fleming and Vladimir Jankovic call "climate as agency" that translates matters of concern into matters of fact, this paper seeks to show that, common to the two aforementioned broad forms of influence, the tropical climate in tropical architecture was more than a statistical index of weather trends. Tropical climate was elevated as a prime consideration in the design and construction of tropical architecture because it was seen as an agency and a force that informed social habits, affected health, shaped socio-economic progress and determined the welfare of a territory's population.

Chang Jiat Hwee is Assistant Professor at the Department of Architecture, National University of Singapore. He obtained his Ph.D. in Architecture from the University of California at Berkeley in 2009. His interdisciplinary research on (post)colonial architectural history and theory, and the socio-technical aspects of sustainability in the built environment have been published as various book chapters and journal articles. He is currently working on a book titled *A Genealogy of Tropical Architecture: Colonialism, Ecology and Nature* (to be published by *Archi-text* series, Routledge). He is the co-editor of *Non West Modernist Past* (2011) and a special issue of *Singapore Journal of Tropical Geography* on "tropical spatialities" (2011). He is also the author of two monographs on contemporary architecture in Singapore.

SESSION ONE - TRANSITION

Aspects of collaboration in the work of Oliver Hill and Maxwell Fry

Vanessa Vanden Berghe, University of East London

This paper seeks to explore through an examination of the work of two twentieth century architects Maxwell Fry and Oliver Hill how their work can shed new light on the existence of alternative forms of modernism.

At first sight, this unlikely comparison would suggest that Fry's development follows the conventional path of architectural modernism whilst Hill's work tends to be seen as deviating from such a modernist trajectory putting himself and his work at the margins of architectural history. However, on closer inspection we can see that both Fry and Hill offered 'different' architectural approaches that underline the existence of wider manifestations of modernism in England. Their collaboration on the Dorland Hall exhibition (1933) suggests that these differences in approach were underpinned by their shared commitment to bringing good design to a wider public. Other collaborations reinforced this sense of creative partnership between friends, partners and clients. This is evidenced in Fry and Gropius's collaboration on Impington Village College (1939) and Hill's Thatched House at Knowle (1925) in which regionalist influences in their oeuvre reveal how both architects early on in their careers sought to increasingly create buildings with a distinctive sense of place and identity.

Analysing various aspects of Hill's and Fry's collaborations and the influence that these projects have had subsequently on architectural production, I will argue that such a wider approach not only adds to our knowledge of alternative expressions of modernism but that it also increases our understanding of how these architects commonly sought to integrate modernism within the larger cultural and regional frameworks of interwar Britain

Vanessa Vanden Berghe has studied History of Art at the University of Ghent, Belgium. She completed an MA in the history and theory of architecture at the University of East London in 2001, where she also lectures and is currently in the final stages of her MPhil (also at UEL) researching the Enigma of British Modernism through the work of Oliver Hill. She most recently contributed a chapter entitled: 'Oliver Hill: a window on Regionalism in Britain during the interwar period' in *Regionalism and modernity during the interwar period* (edited by Leen Meganck, Linda Van Santvoort & Jan De Maeyer) published by KADOC-Artes.

SESSION ONE - TRANSITION

Fry and Goldfinger: A comparison between two CIAM models of high-rise housing

Thomas Wensing, Independent

Looking back at the CIAM period (1928-1960), it has often been asserted that the CIAM conferences were dominated by Le Corbusier and that it offered a singular and dogmatic approach towards urban planning and housing. This reductive postmodern reading is sometimes extended in the blame directed at CIAM for many of the social ills which befell post-war urban schemes. A closer scrutiny of the CIAM conferences, and the discussions which were taking place at the time, shows in fact a kaleidoscopic landscape, a truly international environment of fruitful discussion and debate, and an intellectual landscape which was aimed at feedback and self-correction.

In CIAM Dokumente 1928-1939 (1979) Alfred Roth acknowledges Le Corbusier's influence on the conferences, but is quick to deflate the myth that he single-handedly shaped CIAM, and instead offers a more pluralistic view of many contributions from different nations. Roth explains that a split existed between French and German culture which was reflected in a political division between utopian and scientific socialism.

In the British context, the MARS group reflected a similar pluralism as the CIAM conferences as a whole, in part through the influx of foreign architects fleeing totalitarian repression in Nazi Germany. I contend that the MARS group can therefore be seen as a platform in which the French, more artful, CIAM strand and the German, so-called functionalist and scientific approach, were reconciled and expressed in the work of members of the MARS group.

This paper proposes to explain the similarities and differences to the way in which high-rise housing was presented as an answer to the housing question by the respective French and German CIAM groups and to explain the way in which these CIAM ideas were adjusted to the British context by two of the members of the MARS group; Ernő Goldfinger (1902-1987) and Edwin Maxwell Fry (1899-1987).

Thomas Wensing is a licensed architect in the Netherlands and the UK, living in Brooklyn. He is an independent scholar and writes for magazines such as Blueprint and Architecture Today. Before moving to the US, he worked for three years as project architect at David Chipperfield Architects in London, UK. At DCA Thomas Wensing worked on a variety of projects, from a sculpture studio for Antony Gormley to the design and planning applications for large commercial and residential projects in London. Between 2008 and 2010 he was partner at Meld and Studio Seventi, both in London, and he worked in New York for Bogue Trondowski Architects.

Thomas Wensing graduated in 2005 as MSc in Advanced Architectural Design at Columbia University on a Fulbright Scholarship. He received a Master of Architecture Degree from Delft University in 2001. Teaching activity has included Kent University, Eindhoven University of Technology and Tilburg Academy for Architecture.

SESSION ONE - TRANSITION

Maxwell Fry and Jane Drew – the Romantic turn

Alan Powers, Independent/NYU London

The paper will start from Fry's 'A Letter about Architecture' in *Horizon* magazine, May 1946, in which Fry addressed Drew as well as a wider non-specialist readership. It represents a transitional period in Fry's career that began before the war with some lesser known buildings such as the brick built house Warham's Ash, Hereford, and the Cecil Residential Club in North Gower Street. These were more varied in materials and form than the Modernist buildings through which he first acquired fame in the years 1933-36, and anticipate, along with Goldfinger's Willow Road houses and some other examples, the next ten or fifteen years of stylistic development in English and European Modernism. There is no accepted term for describing this romantic turn in Modernism, at least until the 1947 coinage 'New Empiricism'. The style remained current in much of Fry and his practice's work well into the 1950s.

In the *Horizon* text, and in *Fine Building*, 1944, Fry reveals the thinking that moved him and other members of his generation to move on to a second version of Modernism that was deliberately anti-machine and reflected the writings of D. H. Lawrence and Lewis Mumford to which he referred. In the paper, these written sources will be related to Fry's work and that of his contemporaries in Britain, Sweden and the USA to fill out a more complete account of this change of direction.

Dr Alan Powers, FSA, Hon. FRIBA, has written widely on twentieth century British architecture, art and design and curated a number of exhibitions. He was Professor of Architecture and Cultural History at the University of Greenwich before becoming an independent scholar with a range of teaching activities. He has had a long association with the Twentieth Century Society, becoming Chairman 2007–12. He was founder editor of its journal *Twentieth Century Architecture* and with Elain Harwood and Barnabas Calder is a joint editor of the monograph series, jointly with English Heritage and RIBA, *Twentieth Century Architects*. His books include *Britain*, in the series *Modern Architectures in History* and *Serge Chermayeff*, designer, architect, teacher. *Eric Ravilious*, artist and designer will be published by Lund Humphries in October 2013. In 2011–12, Alan Powers was awarded a British Academy Mid-Career Fellowship on the theme, *Figurative Architecture in the Time of Modernism*.

SESSION TWO – POST-WAR BRITAIN

Modern City versus Garden City: Housing at Harlow New Town

Christine Hui Lan Manley, Mackintosh School of Architecture

During post-war reconstruction debates, Garden City supporters promoted low-density housing, while modernist architects advocated high-density high-rise regional planning. As members of the MARS Group, E. Maxwell Fry and Jane Drew fell into the latter camp, with Fry playing a key role in the development of the MARS Plan for London. The post-war New Towns program provided the ideal opportunity to test these new planning concepts, especially since a number of MARS Group members were commissioned to design the towns. Gibberd was selected to plan Harlow and was determined to create a modernist town with an urban character. Naturally, he turned to fellow MARS Group member Fry to design housing in the first neighbourhood, Mark Hall North.

In partnership with Jane Drew, Maxwell Fry designed housing groups ‘Tanys Dell’ and ‘The Chantry’ at Harlow. However, hampered by the low density recommendations, the housing in Mark Hall North was considered a ‘failure’ in 1953 by *The Architectural Review*. This paper seeks to examine the process involved with the design of the neighbourhood to show that a modernist agenda was, in this instance, compromised by the overpowering influence of the Garden City model.

By analysing the distribution and layout of housing in Mark Hall North, this paper will reveal how Gibberd, Fry and Drew sought to create higher density housing groups in an attempt to orientate the New Town toward the modernist high-density vertical city paradigm and away from the low-density Garden City planning model. However, government design publications and Ministry officials had envisaged Garden City type planning for the New Towns. This paper will argue that despite the various strategies employed by Gibberd, Fry and Drew at Mark Hall North, ultimately, the prevailing inclination toward Garden City planning restricted the creation of a modern urban character at this first neighbourhood in Harlow.

Christine Hui Lan Manley is currently completing her PhD at the Mackintosh School of Architecture. Her research centres on the concept of ‘urbanity’ – a notion which developed in Britain through architectural discourse during the 1940s and 50s. Christine’s PhD research investigates how urbanity was defined and understood by the architectural avant-garde, and how the idea was applied to the design of housing in the Post-War New Towns.

Christine became interested in housing design whilst working for a London-based architectural practice, where she designed plans for high density sites and worked on innovative social housing schemes. Her interest in the development of housing in a historical context arose during research carried out during Diploma and Masters studies at the Mackintosh School. Christine is a member of the C20 Society and currently edits their ‘Building of the Month’ feature. Her PhD research is funded by the Arts and Humanities Research Council (AHRC).

SESSION TWO – POST-WAR BRITAIN

Cohabitation or collaboration? ‘Drake and Lasdun of Fry Drew Drake and Lasdun’

Barnabas Calder, Liverpool University

After the termination of Berthold Lubetkin’s Tecton partnership in 1949 two of the partners, Lindsay Drake and Denys Lasdun, accepted an offer from Fry and Drew of a new partnership. This lasted until the retirement of Drake in 1959, at which Lasdun left too to establish Denys Lasdun & Partners.

Drake & Lasdun seem to have maintained a considerable level of autonomy within the partnership, publishing their work separately, invariably as ‘Drake and Lasdun of Fry Drew Drake and Lasdun’. Letters from the time reveal that Lasdun actively resisted closer architectural involvement with Fry and Drew, and he always maintained later that the relationship was purely an office-share for reasons of expedience. Yet a publication of Drake and Lasdun’s work in *Architectural Design*, February 1958, includes projects which were never again acknowledged by Lasdun, and which, in stylistic terms, look much closer to the oeuvre of Fry and Drew.

The decade-long existence of Fry Drew Drake and Lasdun was a productive one for both sides of the partnership. A number of the buildings of this period for which Lasdun led the design process have been continuously recognised since as amongst the most original and interesting buildings of British modernism – Bethnal Green “Cluster Block” social housing exhibited at CIAM, Hallfield School, and the outline design phases of the Royal College of Physicians and a block of luxury flats in St James’s Place.

This paper will explore the dynamics of the partnership, drawing on interviews with surviving assistants in Fry Drew Drake and Lasdun, and on the limited archival evidence, to investigate how Drake & Lasdun operated within the shared offices, and whether the cohabitation had any influence on the architectural output of the partners.

Barnabas Calder is Lecturer in Architecture at the Liverpool School of Architecture. His research centres on the architecture of Denys Lasdun, about whose National Theatre he wrote his PhD, before spending two years cataloguing much of Lasdun’s archive at the RIBA. He is currently researching and writing a complete works of Lasdun funded by the Graham Foundation, to be published as a web resource by the RIBA. *Lasdun Online* will be composed of illustrated discursive entries on each of Lasdun’s projects, accompanied by thematic essays on aspects of Lasdun’s practice and its context.

Barnabas is also writing a book on British Brutalism for William Heinemann, and a single-volume story of architecture for Penguin. His other research interests include Cedric Price, on whom he curated an exhibition at the Lighthouse, Glasgow, in 2011 and the Bartlett, London, 2012.

SESSION THREE – FRY & DREW IN THE TROPICS

“The most difficult architecture to create”: Fry, Drew & Partners’ contested legacies and the vicissitudes of low-cost housing design in (post)colonial Ghana

Viviana d’Auria, KU Leuven

As has been well documented, Maxwell Fry and Jane Drew were intensely involved in British West Africa. From their Accra-based office, they designed the cornerstones of late colonial welfare development, ranging from hospitals to universities. Explorations of their West African work however, have neglected housing design, including the ways in which it confronted colonial antecedents and how expatriate practitioners and local professionals confronted its legacy. This disregard is all the more challenging seen the weight it had for Fry and Drew themselves, as well as its overall significance for general post-war technical assistance.

Indeed, in the case of housing conception too, the partnership’s work was envisaged at a time of confidence in the reconciliation of modernism and development within the walls of a low-income dwelling. Freshly-arrived in Chandigarh after several years spent in West Africa, Fry and Drew were important contributors at the United Nations Housing Seminar in New Delhi in 1953. At the event, their efforts not only earned them recognition with the prize-winning conception of House 23, but was also the topic of Fry and Drew’s paper, who underscored how low-cost dwellings were “of all architecture the most difficult to create”.

On such premises, this contribution focuses on pre-Chandigarh housing design in Ghana. By looking at cases from the Accra-Tema Metropolitan Area, it wishes to comment more particularly on how the partnership was concerned with indigenous dwelling cultures. It then reflects on how this centre of attention was (or not) picked up by international technical assistance and local government planning in the following decades. The notion of ‘growing’ and ‘extendable’ housing, in addition to gender-based typologies will be inquired into by means of selected cases such as the Jamestown slum clearance scheme, the work of the Tema Development Corporation and of the International Co-operative Housing Development Association.

Viviana d’Auria is Lecturer in Human Settlements in Development at the Department of Architecture, Urbanism and Planning (University of Leuven) and NWO Rubicon fellow at the Department of Geography, Planning and International Development Studies (University of Amsterdam). Her dissertation *Developing Urbanism in Development: Five Episodes in the Making of the Volta River Project in (Post-)colonial Ghana 1945-76* (KU Leuven, 2012) explored the contribution of transnational technical assistance projects to the epistemology of (post-)colonial urbanism through the particular case of the Volta River Project. Critical spatial analyses of modern dwelling environments and their lived-in ‘hereafter’ are an integral part of her research within a more general interest in modern urbanism in non-Western contexts. On this note, Viviana’s post-doctoral inquiry is comparatively exploring home space in Greater Accra and Lima by focusing on the socio-spatial history of modern ‘incremental’ neighbourhoods such as Tema Manhean and Villa El Salvador.

SESSION THREE – FRY & DREW IN THE TROPICS

Fry and Drew at Ibadan: rethinking the ‘colonial modern’

Tim Livsey, Birkbeck College, University of London

This paper considers Fry and Drew’s buildings for University College Ibadan (UCI), Nigeria. These buildings have often recently been interpreted as part of a post-war ‘colonial modern’ moment, which saw a pact between rationalist urban planning and authoritarian colonial power. Colonial modern planning, including Fry and Drew’s work at Ibadan, has been interpreted as excluding indigenous voices from planning and upholding colonial power.

The paper uses the history of the UCI buildings to qualify colonial modern interpretations. It shows how Nigerian agendas influenced the planning of the buildings through a long pre-history of Nigerian thinking on higher education, and the acquisition of the site, which involved negotiations between the colonial state and local chiefs. Fractures within the colonial establishment are considered, including those between architects and client, suggesting that there was not an integrated colonial modern machine. The unexpected variety in the buildings’ reception and use is also considered, to explore the ways the buildings were interpreted by Nigerians.

However, the paper also endorses aspects of the colonial modern view, showing how Fry and Drew’s apparently apolitical ‘modern’ spaces were closely imbricated with colonial-era urbanism and constructions of whiteness. As such the buildings represented an ambivalent legacy to a decolonizing country.

Tim Livsey is an AHRC funded PhD student at Birkbeck College, University of London. He is currently completing a thesis on ‘The University Age: Development and Decolonisation in Nigeria, 1930 to 1966’, which makes special reference to built environments, including Fry and Drew’s work at the University of Ibadan.

SESSION THREE – FRY & DREW IN THE TROPICS

From Anglo-Persian Oil Company Towns to Modern City Neighbourhood Units in Tehran

Rana Habibi, KU Leuven

Fry, Drew & Partners designed the new towns of Gachsaran and Masjid-Suleiman in South-western Iran in the 1950s. These two settlements were basically company towns conceived for British-Iranian seniors and local workers. The Anglo-Persian Oil Company (APOC) was founded in 1909¹ and built most Oil cities in the country, such as Masjid-Suleiman, Gachsaran and Abadan. The company towns in question are emblematic of colonial towns and cities in the first half of the Twentieth Century. Town planning practice shifted away from an ad hoc collection of buildings to the conception of separate but symbiotic worlds of expatriate suburb and 'native town'. Gachsaran and Masjid-Suleiman embody the attempt to generate 'architecture of welfare and development' (Crinson, 2003). The architect given responsibility for the town planning scheme as well as the design of large numbers of buildings was James Mollison Wilson. The latter was a member of the Baghdad Railway Station design group. He was one of the young architects who were given considerable scope for their professional skills in the British empire, particularly in the 'bargain basement' of the Middle East after the First World War. Fry, Drew & Partners cooperated with Wilson in the design of Gachsaran and Masjid Suleiman. They also completed a survey on housing style in the oil town of Aghajary in 1955, before designing the two other company towns.

Most oil company towns in Iran consisted of a remodelled Garden City and City Beautiful idea. These planning ideals and ideas were not limited to Iran, but rather were shared across a number of contexts the practice was involved in. Indeed, Fry, Drew & Partners, as well as Mollison Wilson, were working in India while busy with the Iranian commissions. The trans-nationalism of their practice is embodied by the transfer and transformation of the bungalow to Iran, which triggered a strong cultural reaction. In fact, the 'import' of the Garden City model by the British oil company towns, concomitant with the Iranian modernization process, had a considerable impact on the metamorphosis of traditional Iranian city structure. It introduced a new model for modern towns. Chaharsad Dastgah, the first middle-class housing in Tehran, was constructed on the basis of oil company planning ideas in 1946. It was designed by Iranian European-trained architects. Row-housing with private gardens and the Baroque Style square have some similarities with the garden of Bawarda, Braim and other Anglo-Persian oil company towns in Southern Iran. However, the planned units were a revisit of traditional Iranian housing. In short, the imported ideas of company towns by the trans-national practice of Fry, Drew & partners occurred hand in hand with the creation of a context-specific Garden City model in Iran by hand of young Iranian European-trained architects.

Rana Sadat Habibi is an architect graduated from Azad University of Tehran. In 2011 she obtained two degrees of Master of Urbanism and Strategic Planning and European Master of Urbanism from the University of Leuven (KUL) and University of Venice (IUAV), respectively. Currently, she is a PhD researcher at the department of architecture, urbanism and planning of the University of Leuven. Her research project is entitled Middle-Class housing in Tehran 1945-1979, an instrument for modernization of society or a hidden negotiation for contextualization, which is financed by ASRO department in KUL. Papers about her research have been published in the proceeding of international conferences such as Contemporary Architecture and Urbanism in the Mediterranean and the Middle East/ Global Impacts and Local Challenges, CAUMME 2012, Istanbul and the Urban Change in Iran Conference 2012, University College of London (peer review conference proceeding).

SESSION FOUR – CLIMATE & PEDAGOGY

Edwin Maxwell Fry & Jane Drew – Architecture as a Climatic Device

Jacopo Galli, IUAV University in Venice

With their numerous designs in West Africa from 1949 to 1960 Edwin Maxwell Fry and Jane Drew established an innovative design system that was later conceptualized in their book *Tropical Architecture in the dry and humid tropics* in 1964.

What is now known as Tropical Architecture consisted in a process of transculturalization of European modernism that was heavily influenced by climatic and social concerns. This design system can be seen as the sum and intersection of different climatic devices that were specifically thought in order to respond to one or more climatic inputs. Otto Koenigsberger saw African vernacular architecture as a pedagogic model for the design of climatic devices: materials and technologies were used in order to achieve a balance with the environment.

Fry & Drew applied this concept and generated an impressive amount of architectural devices that were modified and overlapped in an anti-vernacular way. This can be considered an embryonic step towards a quantitative architecture not solely based on the designer's genius but on a set of scientific data that influenced and transformed architecture.

This assumption does not affect the audacity and boldness of design: the research on innovative building materials or the regeneration of historical building techniques. Every design choice in *Tropical Architecture* was taken respecting the concepts of convenience and opportunity, shading devices or breathing walls took form based solely on climate and are a great example of anti-vernacular regional modernism.

Through a critical redrawing of the buildings it is possible to comprehend design mechanisms in order to verify how the different devices were used in response to the different climatic conditions. The research does not intend to verify the technological functionality of the devices but the architectural coherence displayed in their use. Understanding this design system allows us to retrace how architectural design could be shaped by climatic factors and scientific data, in order to comprehend an important step in the history of transnational modernism.

Jacopo Galli is a PhD candidate at IUAV University in Venice. He holds a bachelor degree in Architecture from the University of Parma and a masters degree in Sustainable Architecture from IUAV University in Venice. He is currently working on a dissertation that investigates British Tropical architecture in West Africa of the 1940s and '50s as an innovative design system representing an embryonic stage of climate responsive design. The dissertation is particularly focused on the book *Tropical Architecture in the Dry and Humid Tropics* seen as the masterpiece of Edwin Maxwell Fry's and Jane Drew's entire career. The analysis of the book will be carried out through an understanding of the main influences on Fry & Drew's African designs such as *Tropical Medicine and Colonial Technologies* and through a critical redrawing and analysis of the buildings used as examples in the manual.

SESSION FOUR – CLIMATE & PEDAGOGY

Luís Possolo – The Portuguese-speaking Architect at the 1st. AA Course in Tropical Architecture

José Luís Possolo de Saldanha, University Institute of Lisbon

Luís Gonzaga Pedroso Possolo (Lisbon, 1924) was the only Portuguese-speaking architect at the 1954/55 first edition of the Architectural Association's Course in Tropical Architecture, held under Maxwell Fry.

Possolo's performance seems to have been of a high standard there. In his report for the Portuguese Overseas Affairs Undersecretary of State, he points-out that from all 120 designs by the students in class, only seven were selected for an exhibition at the AA - Possolo being the only one to have two designs shown.

The grading panel at the course was made of Fry, Jane Drew, and J. McKay Spence (who was Deputy Director for the Department). All grading reports on Possolo's designs are extant, as well as his AA Diploma and a number of interesting documents - such as his letters to, and from, Fry, Drew, Lake & Lasdun, upon finishing his Course at the AA, that show he was close to being hired by the office. However, he chose instead to return to Portugal, where he worked at the Overseas Planning Office (Gabinete de Urbanização do Ultramar) and produced a number of fine designs for Portuguese Africa.

Possolo's auspicious period at the GUU then led him to privately design a number of highly creative projects – two of which were particularly important in Mozambique and Angola's development and modernisation: the buildings for the Cambambe Dam, in Angola, and the Nacala Cement Factory, a mile north of the Mozambican city and port of Nacala.

In Possolo's papers, we also find sketches deriving from projects by Fry and Drew, and a number of black-and-white photographs of tropical architecture by British offices. These provide evidence of the young architect's keenness in following tropical architecture along the guidelines of the AA course. This also clearly comes through in his own built projects for Africa.

José Luís Possolo de Saldanha graduated in architecture at the Universidade Técnica de Lisboa Faculty of Architecture in 1990. He held a scholarship (1999–2002) from Fundação Calouste Gulbenkian for his PhD, which he presented in 2003 at the University of Seville Superior Technical School of Architecture.

He has lectured in Architecture since 1996, and is an Assistant Professor with tenure in the Architecture and Urbanism Department at ISCTE-IUL (University Institute of Lisbon), where he has been teaching since 2006. He is presently President of the Pedagogic Council of this Higher Education Institution for the 2013–2014 biennium.

José Luís Saldanha has presented papers and authored, or co-authored, articles, books and chapters of books on a wide range of architectural themes, such as landscape, building design and tropical architecture. He has also been active in designing architecture for private and institutional clients in continental and insular parts of Portugal.

SESSION FOUR – CLIMATE & PEDAGOGY

Environmental Design Pedagogy at the AA

Irene Sunwoo, Bard College

This paper traces the history of the Rational Technology Unit, a design studio at the Architectural Association in London that can be understood as the successor to the AA Tropical School and as the predecessor to its current Sustainable Environmental Design postgraduate programme.

Active between 1972 and 1976 and coordinated by Gerald Foley, the Rational Technology Unit's research and design investigations were prompted by the contemporary energy crisis. Its objective, on the one hand, was to conduct a wide-range of research on the energy consumption of buildings, as well as alternative energy sources (solar, wind) and building materials (sulphur, soil-cement). But by taking a 'rational' approach to technology in its efforts to 'design with nature', the unit also implicitly called for a departure from the romantic, utopian, and techno-fetishistic approaches to environmental issues, as put forward by avant-garde architects and professionals alike.

Through its investigative research the unit sought to understand the energy crisis as not simply a matter of depleting resources, but rather, as a matrix of economic, political, and social factors in which architecture was irrevocably complicit. At a moment when the Three-Day Week and North Sea oil drilling threw questions of energy consumption and national resources into high relief in Britain, the unit aimed to redefine the role of the architect and architecture according to a 'realistic' perspective on the relationship between technology and the built environment.

Putting the Rational Technology Unit's research and projects in dialogue with the work of other tutors within the AA and with architectural practice in Britain, the paper uses architectural education as a lens for understanding shifting attitudes towards environmental design during the 1970s.

Irene Sunwoo is a Visiting Assistant Professor at Bard College, and a doctoral candidate at the Princeton University School of Architecture. Her current research focuses on the pedagogical theories and work of Alvin Boyarsky, former chairman of the Architectural Association.

SESSION FOUR – CLIMATE & PEDAGOGY

Designing with Climate in the Suburb: Olgyay and Olgyay and the American Influence of Fry and Drew

Daniel A. Barber, University of Pennsylvania

In the late 1940s and early 1950s, when Maxwell Fry and Jane Drew were exploring methods for building in the tropical climates of West Africa, interest in architecture and climate was also the concern of many practitioners in the Americas. Richard Neutra's commissions in Puerto Rico, for example, involved school designs with induced ventilation; design innovations across Brazil and South America developed dynamic shading systems; in the US, the American Institute of Architects collaborated with House Beautiful to produce a series of articles on "Climate Control" and a handbook for architects.

This presentation will briefly summarize this American interest, and then focus on the work of Victor and Aladar Olgyay, twin Hungarian émigrés working at MIT and Princeton in the period. Committed Corbusians, the Olgyay's met Fry in London in 1936, soon after he completed his Sun House, and were inspired by his use of the materials and methods of modernism towards a more refined relationship to climate. The Olgyay's books *Solar Control and Shading Devices* (1957) and *Design with Climate* (1963) codified and popularized the global climatic discourse. They also present an early attempt to place these interests in historical perspective.

Whereas Fry and Drew developed their strategies in the context of the economic development goals of Britain's former colonies, the Olgyay's focused on the American suburb. The second part of the presentation will focus on the challenges they faced. In addition questions of orientation, materials, and building shape, developing means by which architects could engage scientific analyses of climate were paramount, as they allowed for a generalized method for designing subdivisions according to regional differences. Their method for climatic subdivision design was briefly influential, before the affordability of HVAC rendered their analyses mute – a historical consequence, as the presentation will conclude, that has ramifications for the present.

Daniel A. Barber is an Assistant Professor of Architectural History at the University of Pennsylvania, where he is also the Associate Chair of the Department of Architecture. His research looks at the role of architectural technologies in the infrastructural and territorial transformations of the immediate post-World War II period in the United States. His current book project is titled *A House in the Sun: Modern Architecture and Solar Energy in the Cold War*.

Barber's essays have appeared in numerous periodicals, including *Grey Room*, *The Journal of Architecture*, *Design Philosophy Papers*, *thresholds*, and *DASH*; he has also published articles in numerous edited volumes. An essay is forthcoming in *Technology and Culture*.

Barber received a PhD from Columbia University, and was a post-doctoral fellow at Harvard University Center for the Environment. He has held visiting positions at Oberlin College, Barnard College, and the University of Auckland, New Zealand.

SESSION FIVE – CHANDIGARH

Designing with landform and climate: Fry and Drew's contribution to the Chandigarh master plan

Antony Moulis, University of Queensland

In the book *Tropical Architecture in the Humid Zone* (1956) Maxwell Fry and Jane Drew strongly criticise both 'Garden City' and 'grid-iron' layouts as 'unrealistic' to housing and town planning in the tropical context. Key to their own planning precepts is a practical concern for the relationship of landform and climate - the prevention of erosion, the securing of road drainage and respect for the natural contours - leading to housing layouts subtly adjusted to the prevailing conditions. For Fry and Drew such an approach emerged productively from their work begun in the British government's West African colonies in 1944 and continued at Chandigarh, India, between 1951 and 1954. Their specific critique of both Garden City and grid-iron forms - the prevailing planning approaches in mid-20th century modernism - could be viewed as a direct legacy of their experiences in Chandigarh, where the partners found themselves working within the constraints of the city's famous master plan, drawn by the Swiss-French architect Le Corbusier, which was broadly understood as a rational gridded revision of the original Garden City plan devised by the US planner Albert Mayer. Yet subtle adjustments of the city's gridded layout to account for features of the land reveal the greater agency of Fry and Drew in the master plan's formation and speak of their knowledge and experience of planning in the tropics already gained from their West African work up to 1950.

Based on research of the architects' archives held by the RIBA and the V&A Museum, this paper gathers evidence of Fry and Drew's contribution to the Chandigarh master plan, drawing upon testimony of both partners of events surrounding the master plan's making in early 1951. By seeing Chandigarh's overall layout in context with the architects' own strategies for housing and town planning in the tropics published between 1947 and 1956 the paper will argue the key role of Fry and Drew in substantiating the Chandigarh master plan as more than simply an abstract conceptualisation of city form.

Antony Moulis is Associate Professor and Director of Research in the School of Architecture at the University of Queensland, Australia. His research on practices of design in mid-twentieth century modern architecture includes archival research at the Fondation Le Corbusier, the Alvar Aalto Academy, and the Canadian Architectural Archives. His architectural writing for professional and academic journals appears in *ARQ*, *AA Files*, *Architectural Theory Review*, *Architecture Australia*, *Monument*, *Architectural Review Australia*, and *The Journal of Architecture*. He is currently a Chief Investigator on an Australian Research Council Discovery project on eminent Australian architect John Andrews, known for his work in North America in the 1960s and '70s, including Gund Hall at Harvard. Moulis co-convened the 2011 Conference of the Society of Architectural Historians, Australia & New Zealand, and was awarded Best Paper at the Society's 2010 Conference for his research of the collaborative links between Jorn Utzon and Le Corbusier.

SESSION FIVE – CHANDIGARH

Houses of Chandigarh

Christina Papadimitriou, Princeton University

'Birth is an impingement by an environment which insists on being important... To be born or to relive birth is to experience the feeling of being in the grips of something external.' Donald Winnicott

This paper will narrate the story of the housing schemes of Chandigarh built in a period of anxiety shortly after India's independence in 1947. Following Nihal Perera's argument that Chandigarh is a hybrid of imaginations negotiated between multiple agencies rather than a single author's creation, the narrative will try to give an account of the different voices expressed and the different visions of modernity moving between individuals - as diverse as Otto Koenigsberger, Albert Mayer, Matthew Nowicki, Maxwell Fry, Jane Drew, Le Corbusier and Pierre Jeanneret - and national and institutional platforms.

The main argument will be made in terms of international relationships, with major and minor players, as they manifest themselves in the building of the houses of Chandigarh and not in post-colonial terms since the latter frame of thought has the tendency to reduce the ex-colony to the role of a post-colony. Thus, by focusing on Maxwell Fry and Jane Drew, this paper will compare their housing projects in Chandigarh not only to their work in West Africa or in the Middle East, as is usually the case, but also with their projects in Britain such as the two schemes designed for Harlow, the Tany's Dell and Chantry housing groups. Since Fry and Drew were also responsible for the bye-laws provisioned for Chandigarh, similarities and differences between them and those of the London County Council will also be drawn. The paper's aim is to demonstrate a process of modernization that affects everyone but where 'effects' on a specific subject depend on the latter's position in the instance of modernization.

Christina Papadimitriou is a Ph.D. Candidate in the Department of Art and Archaeology at Princeton University where she received her M.A. in 2011. She also holds an M.A. (Dist.) in Histories and Theories from the Architectural Association in London, a Diploma (Dist.) in Architecture from the University of Patras and a Diploma in Art and Archaeology (Dist.) from the University of Athens. Her dissertation studies the MARS Group in Britain from 1933 until 1957. Starting as a marginal architectural group, MARS acquired a preeminent position both in England and abroad after the Second World War and played an important role in the way the modern movement was perceived and disseminated globally. The dissertation takes on specific themes of shared interest as indicated by the group's organized committees and narrates the MARS story through exemplary but formally diverse solutions to the obstacles the group had identified in Britain's way to modernism.

SESSION FIVE – CHANDIGARH

Subverting modernism through autonomous urbanism

Claire Louise Staunton and James Price

The film *Corrections and Omissions* (2013, James Price) presents two cases of anarchic urbanism in contemporary Chandigarh. The first concerns the domestic dwellings built for low and mid-rank government employees in Sector 22, designed by Jane Drew & Maxwell Fry. Residents have defied the Chandigarh edict on a small scale by adapting the buildings to their individual and family needs; by altering the room size, use and the building shape as well as permitting “homeless” low caste families to squat on their allocated land in exchange for services such as cleaning, guarding or ironing.

Secondly, the film introduces to the viewer the off-grid village of Burail. In a struggle to keep perfect order and perfect form within the 56 sectors that make up the city, the temporary slums which appear on the fringes of the grid are systematically flattened by the state. The exceptions to this are the villages that pre-date the arrival of Le Corbusier and his team, and still exist enclosed by the masterplan. Burail lies in the centre of sector 45. Its community has persistently defied all planning regulations, is built along an irregular, diagonal axis; its thoroughfares and alleyways missing from the official city map.

The paper unpacks and allies these two examples of anarchic architecture as a subaltern creation of complex spaces, which subvert the grid, and disrupt several current narratives that de-politicise or renew colonialism. Such urbanism operates within an alternative economy outside of the dominant forces of capital and development and is an inherently political act. The paper proposes that these practices expose the contradiction between the principles of indigenous architecture (Drew 1963, Drew & Fry 1964) which insisted upon learning from the vernacular thus adapting designs for the needs and habits of future Chandigarh residents and the modernist imperative to uphold the truth of materials, which guards pure design from “from whims of individuals” (Chandigarh Edict). Furthermore, this paper suggests that the increasing heritagisation of Drew & Fry’s buildings are antithetical to their ambitions for their architecture and renders the planned districts de-politicised.

Claire Louise Staunton is the director/curator of Inheritance Projects and Flat Time House, London. Inheritance is a small group of independent curators and researchers (Laura Guy, Becky Ayre) that organises exhibitions, events, new commissions, publications and research projects. Initiated in 2007 as a vehicle to interrogate museological schemata, the narrations of history and personal and national heritage Inheritance has developed into wider territories of investigation. Inheritance works with artists, musicians and writers in collaboration with institutions to produce new knowledges and develop politically informed, critical discourses around particular topics or situations. The exchange between Inheritance curators with filmmakers, artists, writers, residents and historical artefacts offers a multiperspectival narration by a number of speakers from different places and times.

Inheritance leads a long-term investigation of the visual culture of intentionally planned urban areas (New Towns) and their migrant populations. This research project has involved a project space in Shenzhen which served to question heritage and art history in a new migrant city, an exhibition and ‘Research Lab’ unpacking the theoretical and practical applications of community at MK Gallery, Milton Keynes and more recently a performative presentation concerning the willing blindness of new developments, at Sarai, New Delhi. Other key project areas include the destabilisation of heritage through artists’ activities often redressing colonial, feminist and wider

political histories in the contemporary. This has included a residency programme with the National Trust, a radio show and exhibitions in traditional museum spaces.

James Price is a documentary and experimental filmmaker who has been working with Inheritance Projects since 2010. Price's films have been shown on the BBC, Channel 4, and More4, in art exhibitions and international film festivals. Television projects include the mini-series *What is Freedom?* (Channel 4, 2009) a critical investigation of liberty and freedom in USA, and *A Piece of the Moon* (Channel 4 / More 4, 2008) an exploration of the capitalising of outer-space and the agents who are establishing the market. *The People In Order* series (Channel 4, 2006) has gone on to be shown at festivals in the UK, Germany, the Netherlands, Poland, Australia and the USA and was the first series of *3 Minute Wonders* to be selected by Channel 4 in their annual review of work. James Price has also exhibited video installations and photography in the UK. His 2006 installation, *Conversation*, an exploration of human interaction and judgment, has shown in the UK, Canada, the USA, and Iran. This work is being distributed as an educational aid in the UK, Australia and North America. In 2012 he produced *The Body Adorned* a semi-permanent installation in the Anthropology Department at the Horniman Museum, London.

SESSION SIX – LEGACY

Fry and Drew Influence on Colonial Public Works Architecture in Nigeria

'Yemi Salami, Liverpool University

This study examines the influence of Maxwell Fry and Jane Drew on the architecture of Nigeria's Colonial Public Works Department (PWD). Mostly referred to as Fry and Drew, literature provides accounts of their coming to work in West Africa as architects and professional advisors during the mid-twentieth century. They are also deemed to have pioneered alongside other private architects of the time, the climate responsive design that has come to be known as 'tropical architecture'.

The literature equally provides a glimpse into operations by the Public works Department (PWD). The department had largely produced the country's earlier colonial buildings, as well as a good number of its mid-twentieth century buildings. The period therefore experienced a blend of designs by the new private architects and by the PWD. But did the designs of the new entrant private architects generate an impact on colonial building? How did the PWD build before this time? Did it have a design tradition by which it operated? Was this tradition affected by the new influences, particularly from Fry and Drew?

To answer these questions, the study will examine two Fry and Drew buildings and their application of tropical design principles. It will then explore two building types done by the PWD – a courthouse and a post office. For each building type, the study will examine its design in the earlier colonial years, as well as during the tropical architecture trend. Changes arising in the new design will then be identified and discussed, particularly those most likely based on fry and drew influences. The purpose therefore, is not only to establish if Fry and Drew influenced PWD designs, but to also know what features they had influenced.

Yemi Salami is a PhD student at the Liverpool School of Architecture, University of Liverpool. Her research investigates British colonial architecture in Nigeria between 1900 and 1960. Specifically, the research aims to understand the colonial administration's Public Works Department (PWD), and the architecture which it produced within the period of study. Yemi held a faculty position at Olabisi Onabanjo University Ago-Iwoye, Nigeria, before enrolling for her PhD in November 2011.

SESSION SIX – LEGACY

Dry and Humid and Everywhere: The work of Amâncio (Pancho) Guedes in Mozambique

Jorge Figueira and Bruno Gil, University of Coimbra

In the seminal *Tropical Architecture in the dry and humid zones*, published in 1964 by Maxwell Fry and Jane Drew, the work of Amâncio Guedes (“Pancho” Guedes, Lisbon, 1925), in Mozambique, appears recurrently as an example of the themes aimed by the authors. The relationship between Pancho’s work and the concerns of Fry and Drew is umbilical, even if the Portuguese architect is more corrosive and incendiary than pedagogical.

Our presentation aims to contextualize and problematize the works of Pancho Guedes referenced by Fry and Drew, as part of his vast production between the early 1950’s and 1975, an itinerary that ends with the decolonization process of the “Portuguese Africa” in 1974. Pancho’s work refers to the condition of Portugal as a colonial power blasted by a great artistic, experimental, “climatological” voracity, which Fry and Drew capture in *Tropical Architecture...*, demonstrating a particular geo-culture within the colonial process in Africa. Accordingly, we sustain that the general invocation of the post-colonialism – “can the subaltern speak?” – finds in Pancho Guedes a particular resonance. Pancho is a colonizer colonized by modern architecture, from which he is always in a desire/rejection process. All his work is envisioned, in the manner of Team 10 and beyond Team 10, and certainly under the influence of the theses by Fry and Drew, to mourn the more dogmatic aspects of modern architecture, showing affection towards the locality, using techniques and styles that aim to adapt or lacerate the modern canon towards the local. The archaic, primitive and vernacular recurrently appear in his work, more in the manner of an “automatic writing” than an analytical mode. The high point of this trip is the publication that he imagines of *1001 portas do caniço* (doors from the slums of Lourenço Marques/Maputo), photographed relentlessly in very beautiful slides.

Jorge Figueira graduated in Architecture at the University of Porto, 1992. PhD Degree at the University of Coimbra, 2009, with a thesis entitled *The Perfect Periphery. Post-modernity in Portuguese Architecture, 1960-1980*. Director and Assistant Professor at the University of Coimbra’s Department of Architecture. Researcher at the Social Studies Centre (University of Coimbra). Professor at the PhD Programme in the Faculty of Architecture of University of Porto. Coordinator at the University of Coimbra of the Red PHI Património Histórico-Cultural Iberoamericano. Curator of international exhibitions such as “Álvaro Siza. Modern Redux”, Instituto Tomie Ohtake, Sao Paulo, Brazil, 2008. Editor of *Álvaro Siza. Modern Redux*, Hatje Cantz (Berlin). Author of several books on contemporary architecture, including *O Arquitecto Azul*, Coimbra University Press, 2010. Has published texts in *Arquitectura Viva*, *Casabella* and *A+U* and has a column on architectural criticism in *Público* newspaper.

Bruno Gil graduated in Architecture at the University of Coimbra, Portugal, 2005. Following the graduation thesis entitled “Architecture School, Today” he continues research in that subject. Currently, he is developing his PhD at the Centre for Social Studies and at the Department of Architecture of the University of Coimbra, with a grant from the Foundation for Science and Technology, Portugal. His thesis focuses on issues related to the practice of architectural research, identifying disciplinary specificities, research cultures, topics and methods. He is a contributor at the University of Coimbra to the Red PHI Património Histórico-Cultural Iberoamericano. He has participated in diverse international conferences and workshops, published texts in architecture magazines and was co-founder of the NU magazine and its director between 2003 and 2004.

SESSION SIX – LEGACY

How to be Modern and Design with Climate: Fry and Drew's legacy and the School Programme in Mozambique (1955-1975)

Ana Tostões and Zara Ferreira, IST-UTL, Lisbon

Maxwell Fry (1911-1996) and Jane Drew (1899-1987) headed an essential role on the *design with climate* issue. They contributed to reveal the possibility of a Modern Movement architecture applied to the tropics showing what was beyond the Brazilian Modern and its formal answer. An efficient and technical approach was achieved connecting design tools with sanitarian requirements, establishing a methodological and pedagogical brand disclosed by their research, lessons, publications (Fry; Drew, 1964) and buildings (Kultermann, 2000, 54).

Their action was reflected on the development of the Modern Movement architecture in the former African Portuguese colonies, along the 50' and 60', namely in Mozambique: in the scope of the African investment overseas conducted by the “Estado Novo” dictatorship (1926-1974) the educational program was the main focus following other African countries strategies, according to updated UNESCO policies.

Though, in the beginning the high schools buildings were designed in the metropolis, Lisbon, through the Colonial Urbanization Office (GUC), soon the role would be taken by the local offices receiving influences from the *Tropical Architecture in Dry and Humid Zones* at the Architectural Association course, in London, sponsored by GUC to their employees. At the same time, two facts come together: the wave of Portuguese architects' emigration to African colonies and the increasing autonomy of these territories (Tostões; Oliveira, 2010). So, one may say that Fry and Drew prepared a whole generation of Portuguese architects skilled on tropical climates design methods.

In Mozambique, it gave rise to the development of Public Works Department, where a school trail-blazer concept was developed by Mesquita (1919-?). Widely developed between 1955 and 1975 (the year of the colonies independence), seeking for an efficient energetic performance and comfort in a tropical climate, a *modus operandi* has been conceived and applied (Ferreira, 2012).

The paper aims to demonstrate how the Modern Movement ideology has been locally interpreted, following Fry and Drew knowledge and pedagogy. Their influence will be analyzed in order to enlighten the school building culture using some case studies.

Ana Tostões is an architect, architectural historian and chair of Docomomo International (www.docomomo.com). She is Associate professor with Habilitation at IST-UTL, Lisbon, where she is in charge of the architectural PhD program. Her research field is the history of architecture and the city of the twentieth century, in which she develops an operative view, oriented towards the conservation of modern architecture, focusing especially on post-war architectural culture and on the relations between European, African and American production. On these topics she has published books and scientific articles and curated exhibitions. She's coordinating the research project (PTDC/AUR-AQI/103229/2008) *EWV: Exchanging World Visions*. The project aims to study Sub-Sahara African architecture and planning mostly built in Angola and Mozambique during the modern movement period.

Zara Ferreira is an intern architect and research fellow at Instituto Superior Técnico (IST-UTL), Master in Architecture at IST-UTL with a dissertation entitled *The Modern and the Climate in the Lusophone Africa. School buildings in Mozambique: the Fernando Mesquita concept (1955-1975)*. Based on the systematic analysis of case studies, on which she carries out the analysis and the interpretation of the systems and technologies designed to respond to specific levels of comfort for the tropical climate, along with the analysis of the organization of the built environment and the functional typology, the essay aims to contribute for the characterization of the school's architectural program (developed under the scope of the research project *EWV: Exchanging World Visions*).

SESSION SIX – LEGACY

Theory and practice, global and local: The career of David Oakley

Robert Home, Anglia Ruskin University

During the 'after-life' of empire several significant British architects were active in shaping the public buildings and urban forms of the newly-independent countries of the developing world, and their work is now creating its own historiography.. Maxwell Fry and Otto Koenigsberger are perhaps best known, along with others such as Holford, Gardner-Medwin and Clifford Holliday. Largely forgotten now (and indeed attracting no obituary at the time of his death), but nevertheless a prominent player in his time, was David Oakley (1927-2003). This paper is based upon his private papers, and seeks to rescue him from posthumous obscurity, and place his career and work in a wider context.

Oakley over a wide-ranging and long career in many countries was an expert in various fields: housing, urban planning and development, construction industry development, education and training, and disaster preparedness. He spanned the change in development thinking from the 1950s to the 1990s, from the decolonisation emphasis upon mass housing, through the architect-planner approach to urban development planning, and latterly responses to natural disasters. He belonged to a breed of international development consultants who moved between the different worlds of academia, and company and private consultancy. All these 'experts' operated within colonial and postcolonial networks of knowledge and sponsors, especially the international agencies associated with the United Nations. They were also liberated by the globalisation of communication, allowing them to travel freely (especially with the rise of air travel), disseminate knowledge, and maintain a measure of metropolitan dominance over the forms and circulation of knowledge. He participated in the debates over architecture's social responsibilities, not least the concept of a distinctive 'tropical' architecture, and in the formulation of the academic syllabus for training a new generation of architects in newly independent nations.

Rob Home is Professor in Land Management at Anglia Ruskin University (UK), formerly at the Universities of East London and Reading. He has taught in town planning, estate management, surveying and law at undergraduate, master's and doctoral level. His research interests are in the area of planning history and land management, particularly in developing countries. His published books include: *Of planting and planning: The making of British colonial cities* (2nd edition 2013, Routledge); *Demystifying the Mystery of Capital: Land titling in Africa and the Caribbean* (co-edited) (2004, Cavendish); *Essays in African Land Law* and *Local Case Studies in African Land Law* (edited) (2012, Pretoria University Law Press). He is a member of the International Planning History Society and the EU COST Action 'European Architecture Beyond Europe', and on the editorial board of *Planning Perspectives* journal. His articles on planning history have been published in *Journal of African Law*, *Planning Perspectives*, *Social & Legal Studies*, *Third World Planning Review*, *Planning History*, *Habitat International*, and *Town Planning Review*.

SESSION SEVEN – REASSESSING TROPICAL ARCHITECTURE

Tropical Architecture as Cold War Discourse in Post-Independence Ghana (1960–1966).

Lukasz Stanek, University of Manchester

While scholars have convincingly linked the genealogy of tropical architecture to the colonial networks of the British Empire within the processes of decolonization, the role of Cold War dynamics in this genealogy has been much less recognized. This paper fills in this gap by discussing the cosmopolitan architectural practices in Ghana during the presidency of Kwame Nkrumah (1960–1966), with the specific focus on the Accra International Trade Fair. This ensemble was designed by architects and engineers from socialist Poland according to the principles of “tropical architecture” as advocated by Maxwell Fry and Jane Drew: the translation of modernist architecture according to local climate, technology, and society. The construction of the Fair was a part of broader debates on “building in the tropics” in the Soviet Union and Poland, in response to the engagements of professionals from socialist countries in Europe in Africa and Asia since the late 1950s. Yet in spite of being one of the most prominent ensembles in Nkrumah’s Accra, the Trade Fair was never included to publications about “tropical architecture” nor was it presented in the journal “Western African Architect and Builder” which promoted “tropical architecture” well into the 1970s. This absence needs to be seen as expressing the “intellectual division of labour” specific for the Cold War that allowed acknowledging the work of architects from socialist countries as technological objects, but not as architectural ones. Based on archival research and fieldwork in Poland, Hungary, Croatia, and Ghana, this talk will show how the discourse on “tropical architecture” offered a way for expressing ideological and economic antagonisms among architectural practices in mid-1960s Accra. At the same time, this paper will signal points of connection among practitioners from both sides of the Iron Curtain in early post-independence Ghana, including the School of Architecture in Kumasi, where Fry and Drew would discuss the principles of tropical architecture with colleagues from Hungary and Yugoslavia.

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SESSION SEVEN – REASSESSING TROPICAL ARCHITECTURE

Searching for the Social in the Tropical

Rachel Lee, Technische Universitaet Berlin

Tropical architecture was institutionalised as a professional field in the metropolis of mid-twentieth century London. Drawing on theories developed over two centuries by military and medical experts, and augmented by the experiences of modern architects and planners who had worked in Britain's colonial territories, tropical architecture is generally understood as a climate-centric approach to building in the 'tropics'.

This conception, however, may be too reductive. Several of the key protagonists involved in the institutionalisation of tropical architecture were not exclusively concerned with the climatic aspects of building in tropical regions. Perhaps in contrast to the hygiene engineers who preceded them, they shared a commitment to creating buildings that attempted to understand and respond to the social needs of the users e.g. in the West Indies Robert Gardner-Medwin endeavoured to create buildings that suited the social customs as well as the climatic conditions and the building materials; in Chandigarh Fry and Drew made social surveys, the results of which influenced the designs of buildings such as shops, houses and cinemas; and in 1950, as the Federal Republic of India's Director of Housing, Otto Koenigsberger began conducting an extensive social survey of Delhi.

With a view to creating a more nuanced understanding of the history of tropical architecture, this paper will attempt to illuminate the role that social issues played in the development of the field. While taking into account recent scholarship that has highlighted tropical architecture's inextricable links to decolonisation, it will address to what extent tropical architecture was stripped of social concerns and examine why, despite the more inclusive interests of some of the figures key to its development, it was reduced to a climate-based technoscientific field.

Rachel Lee is a research associate at the Brandenburgische Technische Universitaet Cottbus and a lecturer at the Technische Universitaet Berlin, where she is currently completing her doctorate on Otto Koenigsberger's works and networks in exile. She is also a member of MOD Institute – an urban research and design collective based in Bangalore and Berlin.

SESSION SEVEN – REASSESSING TROPICAL ARCHITECTURE

Rediscovering Fry and Drew's 'Tropical Design' within the contemporary Frame

Ola Uduku, Edinburgh University

How does today's writing on climate and 'adaptive' comfort differ significantly from these earlier literary endeavours after more than half a century after Fry and Drew's books and other writing on tropical building design? Furthermore are we able to compare or undertake a critical analysis of today's building guidance and codes as relates to climate and programme, within our current sustainable low-carbon design context? The premise that this paper proposal seeks to investigate is whether there has been real change in conception or thought about the word 'tropical' design, in intellectual or practical design terms, or there has simply been a reinvention of the names, tools and narratives in which this semantic theme is engaged with in the 21st century.

Ola Uduku is a faculty member at the Architecture School, at Edinburgh University, and has research interests in Environmental Design as well as Modernist Architectural History in Africa. She is a director and foundation member of the organisation ArchiAfrika, which actively seeks to spread knowledge about African architecture within and outside Africa. Ola is co-researcher on the Alan Vaughan-Richards Archive Project.