Welcome to the NUS Geography Graduate Research Workshop 2018 – the 6th since the series of annual workshops commenced in 2012!

The annual workshop is the culmination of the Graduate Research Seminar (GRS) module, which all Graduate research students in the Department of Geography are required to complete during their first year of graduate studies. The class includes both Masters and PhD students, some of whom only commenced their studies in January this year. This academic year, the GRS module comprises 20 graduate research students who together span a broad range of nationalities and backgrounds. In addition to a strong contingent from Singapore, students on the course originate from Algeria (via Canada), China, India, Indonesia, Malaysia, Mongolia, Philippines, UK and the US. Some have joined the Department direct from their undergraduate or Masters studies, while others arrived via a period of employment outside university. Equally broad is the range of research topics, as is evident from the abstracts included. The range of topics reflects a substantive part of the full breadth of research interests in the Department, from examining biomass burning in Indonesia to the sediment loads of rivers on the Tibetan Plateau, from the mobilities of actors through the landscape of theatre to the transnational mobilities of grandparents, from the difficulties in establishing and quantifying ecosystem services to the challenge of reconstructing past environmental changes from sediment records, and from questioning assumptions regarding urban development to analysing subaltern and liminal geo-politics.

The Workshop showcases students’ individual projects. Within their ten minute-long slot, each student will be presenting the ‘what?’, ‘why?’ and ‘how?’ of their research, describing their respective projects, placing each in its academic context, outlining the significance of their planned work, and detailing how they aim to tackle the underpinning puzzles and problems. Some of the students may even be in a position to present preliminary findings of their research. Most, however, will focus on research that they propose to carry out during the remainder of their time in the Department.

For many of the students involved, the Workshop has been their first experience of organizing and hosting an academic event. The fact that they have managed to put on the Workshop while also developing their own presentations is commendable. I am sure that the students will have gained much from the experience. I am equally certain that the students will also have benefited from presenting their own research ideas so soon after embarking on their graduate research; it is not easy to expose ideas to scrutiny when, often, much is unsure and unclear.

I hope you will enjoy the presentations, as well as provide constructive input and friendly advice to the students presenting their work. I feel very privileged to have been able to get to know the graduate research students who are new to the Department through the GRS module, and look forward to observing their development as researchers in their own right in coming years.

David TAYLOR
Graduate Coordinator
Department of Geography, NUS
KEYNOTE SPEAKERS

Professor Jonathan RIGG is a development geographer interested in understanding the human effects of social, economic and environmental transformations in the Asian region. With his research initially focused on farming and agriculture, Professor Rigg’s interests have expanded to migration, urban living, livelihoods, disasters, resilience and participation. As his interests have expanded, they have increasingly been funded through large, multi-collaborator and multi-institutional, interdisciplinary grants, often resulting in multi-authored outputs.

In the Workshop, Professor Rigg will share his experiences of collaborative research and interdisciplinary work. Increasingly, projects are becoming larger in terms of funding and include scholars from a range of fields. This presents both opportunities for new engagements and approaches, but also ample scope for tension and misunderstanding.

The problems facing the globe, such as climate change, require interdisciplinary perspectives and approaches. Moreover, scholars are also increasingly being required to demonstrate social impact. But achieving these things are often easier said than done.

Jonathan RIGG
Director, Asia Research Institute (ARI)
Professor, Department of Geography, NUS

Assistant Professor HWANG Yun Hye is an accredited landscape architect in Singapore and has a MLA degree from Seoul National University and a post professional MLA degree from Harvard University. Her research work focuses on promoting urban wildness against highly manicured greenery and developing ecological design strategies for fast growing Asian cities. Throughout her career, she has won several international awards and recognition in design showcase, conducted design studios in Singapore and neighbouring countries, and actively published peer-reviewed articles and books chapters. She also advises on landscape planning and management projects in the region as a means of reducing a knowledge-action gap.

In the Workshop, we will hear Professor Hwang talk about her experiences in the academic field and about her work and interest in integrating landscape architectural planning and natural resource conservation towards ecologically resilient cities. As a design scholar, she will be sharing keen insights about her work at the intersection of the academic and practical realms.

HWANG Yun Hye
Assistant Professor, Master of Landscape Architecture Programme, Department of Architecture, NUS
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00</td>
<td><strong>Registration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:30</td>
<td><strong>Welcome Remarks</strong></td>
<td><strong>David Taylor</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Department of Geography, National University of Singapore</td>
<td></td>
</tr>
<tr>
<td>09:40</td>
<td><strong>Session 1: Investigating Human &amp; Ecological Dynamics</strong></td>
<td><strong>Going Against the Grain: Examining the (Re)Emergence of Local Agricultural Knowledge in Tamil Nadu, India</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anjana Ramkumar</td>
<td><a href="mailto:anjana_r@u.nus.edu">anjana_r@u.nus.edu</a></td>
</tr>
<tr>
<td>09:55</td>
<td></td>
<td><strong>How is Ecological Knowledge Learnt, Retained, and Transmitted? Implications for the Customary Governance of Community Forestry and Landscape Management in Luang Prabang, Laos</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lau Ying Shan</td>
<td><a href="mailto:lau_ying_shan@u.nus.edu">lau_ying_shan@u.nus.edu</a></td>
</tr>
<tr>
<td>10:10</td>
<td><strong>Disturbance Interaction and Its Impact on Forest Ecosystem Services</strong></td>
<td>Neha Bisht</td>
<td><a href="mailto:neha.bisht@u.nus.edu">neha.bisht@u.nus.edu</a></td>
</tr>
<tr>
<td>10:25</td>
<td><strong>An Evaluation of Singapore’s Natural Capital and Available Coastal Ecosystem Services</strong></td>
<td>Sasha Danielle Soto</td>
<td><a href="mailto:sasha.soto@u.nus.edu">sasha.soto@u.nus.edu</a></td>
</tr>
<tr>
<td>10:40</td>
<td><strong>Examining the Impacts of Land Use Decisions on Fire in the Indonesian Peatlands</strong></td>
<td>Tan Zu Dienle</td>
<td><a href="mailto:e0267918@u.nus.edu">e0267918@u.nus.edu</a></td>
</tr>
<tr>
<td>10:55</td>
<td><strong>An Investigation into Local and Trans-Boundary Pollution History in Southeast Asia</strong></td>
<td>Alex FinneGAN</td>
<td><a href="mailto:e0267891@u.nus.edu">e0267891@u.nus.edu</a></td>
</tr>
<tr>
<td>11:10</td>
<td><strong>Sediment Load Changes of Representative Tibetan Plateau Rivers</strong></td>
<td>Li Dongfeng</td>
<td><a href="mailto:dongfeng@u.nus.edu">dongfeng@u.nus.edu</a></td>
</tr>
<tr>
<td>11:30</td>
<td><strong>Tea Break</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:40</td>
<td><strong>Session 2: Exploring Mobilities &amp; Migrations</strong></td>
<td><strong>Mobilising Theatre: Actors in Creative City Singapore</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meera Nair</td>
<td><a href="mailto:meera_nair@u.nus.edu">meera_nair@u.nus.edu</a></td>
</tr>
<tr>
<td>11:55</td>
<td><strong>Effect of Everyday Transitions across Distinct Thermal Environments on Pedestrian Thermal Comfort in Hot-Humid Tropical Climate of Singapore</strong></td>
<td>Heng Su Li</td>
<td><a href="mailto:hengsuli@u.nus.edu">hengsuli@u.nus.edu</a></td>
</tr>
<tr>
<td>12:10</td>
<td><strong>Religion and the Female Indonesian Domestic Workers</strong></td>
<td>Ummu Syafiqah BinTE Azlan</td>
<td><a href="mailto:ummusyafiqah@u.nus.edu">ummusyafiqah@u.nus.edu</a></td>
</tr>
<tr>
<td>12:25</td>
<td><strong>Balikbayan Professionals: Filipino Highly Skilled Returnees and Infrastructures of Reintegration</strong></td>
<td>Karen Anne S. Liao</td>
<td><a href="mailto:kliao@u.nus.edu">kliao@u.nus.edu</a></td>
</tr>
</tbody>
</table>
12:40  MIGRATION INFRASTRUCTURE, CIVIL SOCIETY ACTIVISM AND MIGRANT DOMESTIC WORKERS IN TAIWAN
YANNIS-ADAM ALLOUACHE (yallouache@u.nus.edu)

CAI FANGYI (fangyi.cai@u.nus.edu)

13:10 - 13:30  KEYNOTE 1
JONATHAN RIGG
Department of Geography, National University of Singapore

13:30 - 14:15  LUNCH & COFFEE

14:15 - 16:00  SESSION 3: UNDERSTANDING THE POLITICS OF CHANGING LANDSCAPES

14:15  EXAMINING THE CRITICAL SPATIOTEMPORAL PERFORMATIVITIES OF “INNOVATIVE URBAN-NESS”: A CASE STUDY OF SINGAPORE AND ITS TRANS-URBAN “BLOCK71” DEVELOPMENT
GOH JIANRONG (JOHN) (goh_jianrong@u.nus.edu)

14:30  PRACTISING RELIGION AT THE INTERSTICES OF SECULARISM: THE PLACE OF ISLAM IN SINGAPORE
RAEDI HAIZER BIN SIDIK (r.haizer_sidik@u.nus.edu)

14:45  CHILDREN’S GEOGRAPHIES OF PLAY IN EVERYDAY URBAN SPACES IN SINGAPORE
ALOYSIUS TAN YOKE JUN (aloysiustan@u.nus.edu)

15:00  TOWARDS A TRULY SUSTAINABLE SINGAPORE: THE NECESSITY OF REDEFINING ENVIRONMENTAL RHETORIC IN SINGAPORE
CLAIRE OEI HUI HSIA (e0193223@u.nus.edu)

15:15  SITUATING LAND CONVERSION IN SOUTHEAST ASIA: STUDIES IN URBANISATION, LANDUSE AND MIGRATION STUDIES IN THE EXTENDED METROPOLITAN REGIONS OF JAKARTA
MIYA IRAWATI (e0193243@u.nus.edu)

15:30  (RE)PRODUCTION OF THE MEKONG SOCIO-NATURE
SUMIYA BILEGSAIKHAN (sumiyab@u.nus.edu)

15:45  THE SUBALTERN AND LIMINAL GEOPOLITICS OF THE ‘TURKISH REPUBLIC OF NORTHERN CYPRUS’
CHEONG XIN YI SHARON (e0267439@u.nus.edu)

16:00 - 16:20  KEYNOTE 2
HWANG YUN HYE
Department of Architecture, National University of Singapore

16:20 - 16:30  CLOSING REMARKS
ALEX FINNEGAN
Representative, 6th Graduate Research Seminar
SESSION 1:
INVESTIGATING HUMAN & ECOLOGICAL DYNAMICS
GOING AGAINST THE GRAIN: Examining the (Re)Emergence of Local Agricultural Knowledge in Tamil Nadu, India

Anjana Ramkumar, Master’s Student

Abstract: Local Knowledge (LK) has been receiving increasing attention over the past few decades for its potential to inform environmental management. While most literature on LK has focused on pre-modern or modernising contexts, this research examines the (re)emergence of LK within the hegemonic landscape of an industrialised, market oriented agriculture in the Southern Indian state of Tamil Nadu. Focusing on the cultivation of traditional rice varieties (TVs), it seeks to understand how LK is used to inform sustainable agriculture as embedded within the socio-political systems governing agriculture in Tamil Nadu. In this pursuit, this research will draw from theories of Political Ecology and Alternative Development, while using the concept of Social Resilience to assess the impacts of TV cultivation on rural households. Qualitative methods, namely semi-structured interviews, participant observation and focus group discussions will be the primary mode of data collection in the field.

In doing so, this research will contribute to existing scholarship in two ways. First, by empirically analysing the cultivation of TVs in Tamil Nadu, it seeks to identify the challenges and opportunities presented by the application of LK to inform sound environmental management. Second, by examining the unique Indian context which hosts a (re)emergence of LK in agriculture, it seeks to unpack the multiple and potentially novel ways through which elements of the ‘traditional’ interact with the modalities of mainstream development.

KEYWORDS: Local knowledge; agriculture; social resilience

Anjana graduated with a Bachelor of Environmental Studies (First Class Honours) and a minor in India Studies from the National University of Singapore. She subsequently worked at the Climate Change Office of the Singapore Ministry of Foreign Affairs, with a portfolio specialising in international climate finance. She is currently pursuing her Master’s degree in Geography at NUS. Her research interests include Nature – Society relations in the Global South, the Human dimensions of Climate Change and Spiritual Ecology. She also has a regional interest in South Asia.
HOW IS ECOLOGICAL KNOWLEDGE LEARNT, RETAINED, AND TRANSMITTED? IMPLICATIONS FOR THE CUSTOMARY GOVERNANCE OF COMMUNITY FORESTRY AND LANDSCAPE MANAGEMENT IN LUANG PRABANG, LAOS

LAU YINGSHAN, PhD Student

Abstract: Community forestry’s coherence with the idea of localised, community-driven governance of resources has positioned it as a politically-legitimate and humanistic mode of forest management. In many traditional societies, such community-driven forest management is exercised by invoking customary laws based on traditional knowledge, including, for example, prohibitions on the felling of trees in sacred forests. However, socio-cultural, political and environmental changes are also eroding traditional ecological knowledge. This could be through its gradual substitution with more powerful knowledge discourses, its gradual loss of relevance in a changing society, or, simply, it being refuted when there are changes in the environmental conditions that justify it. If this cultural resource is neither recognised nor respected endogenously, it could spell fragmentation of both the community and its forests. Yet, individuals and local communities are capable of learning and adapting to such changes with the objective of sustainably managing their forests and landscape. My research seeks to adopt participatory approaches to understand how ecological knowledge is learnt, retained, transmitted, and incorporated into the local governance of forests and landscape in Luang Prabang, Laos. The tentative study site is a village (or a group of villages) in the Kuang Si watershed in Luang Prabang province which, from 2016-2018, have been involved in an NGO-facilitated, state-endorsed programme of delineating customary forest boundaries for watershed protection.

KEYWORDS: Ecological knowledge; customary governance; forest landscape management

Yingshan joined NUS as a PhD student in Geography in August 2017. Her research is a continuation of her long-time interests inspired from her Bachelor (Interdisciplinary Studies (Sustainability)) and MSc (Nature, Society and Environmental Policy) at the Australian National University and the University of Oxford, respectively. While working in PUB, Singapore’s water agency, and the Centre for Liveable Cities from 2010-2017, she also developed an occupational obsession with observing freshwater bodies and drainage networks. She enjoys ballet, contributing to environmental sustainability, reading philosophy and logic, and getting doses of nature therapy in forests with family and close friends.
DISTURBANCE INTERACTION AND ITS IMPACT ON FOREST ECOSYSTEM SERVICES

NEHA BISHT, PhD Student

Abstract: One of the critical challenges for biodiversity conservation and ecosystem management has always been management of multiple interacting disturbances, while ensuring the sustainable supply of ecosystem services, an issue that will continue to grow as global change drivers increasingly alter ecosystems. Forests around the globe have undergone rapid change in distribution and condition due to natural and anthropogenic disturbance factors. These disturbances have resulted in rapid land use and land cover change leading to a worldwide reduction in species diversity, thus affecting the flow of ecosystem services. Studies have shown that disturbances are essential drivers of ecological change but an increase in intensity and severity of these disturbances, exceeding the ecosystems resistance threshold, have been recorded in the past decades. Despite the recognition that interactions amongst drivers have important effects on biodiversity conservation, a limited number of studies have examined the interactive effects of drivers on plant demography and ecosystem services.

An understanding of these disturbance pathways and their interactions that cause changes to the severity of the disturbance impact can be a key to developing successful management interventions in forest ecosystems. The proposed research seeks to build a scientific understanding towards the concept of disturbance interaction and human-environment interactions by employing social survey methods, ecological field surveys and geospatial analysis.

KEYWORDS: Disturbance interactions; forest ecosystems; ecosystem services

Neha comes from a small yet charming town in northern India, Nainital. She has a postgraduate degree in Natural Resources Management, TERI School of Advanced Studies, New Delhi and an undergraduate degree in Forestry from Pantnagar University, Uttarakhand, India. Before joining NUS as a PhD student, she worked as an Associate Ecosystems Specialist at the International Center for Integrated Mountain Development (ICIMOD), Nepal on ecosystem management and long term environmental and socio-ecological monitoring in transboundary landscapes of the Himalayan region where she was involved in developing a management framework for ecosystem services, rangeland resource assessment protocol, conducting fieldwork on invasive alien plant species, governance and institutional aspects of springs and springsheds, community forestry, participatory natural resource management and long-term forest monitoring.
AN EVALUATION OF SINGAPORE’S NATURAL CAPITAL AND AVAILABLE COASTAL ECOSYSTEM SERVICES

SASHA DANIELLE SOTO, PhD Student

Abstract: Tropical coastal ecosystems have most recently been under pressure for increased land reclamation and economic incentives in Singapore. The city-island has rapidly expanded its urban distribution to match its growing population, reducing the already limited and fragmented coastal habitats around the island. Dredging, sediment dumping, and deforestation are a few processes of land reclamation that negatively affect the health and distribution of coastal and marine ecosystems. These ecosystems provide food and shelter to the species that inhabit them but, also, provide valuable ecosystem services (amenities) to the civilization that surrounds them. Ecosystem services are categorized by the services they provide a society such as provisioning (food and water availability), regulating (flood and disease control), and cultural services (spiritual or recreational), all which affect the quality of human health and livelihood. Little is known about the status and health of Singapore’s coastal and marine ecosystems or the values of their ecosystem services. It is irresponsible to continue developing along the coastal borders without proper knowledge; therefore, Singapore will serve as a case-study for the first tropical and national-scale ecosystem service assessment to identify and quantify its “Natural Capital.” I will (1) assess the status of Singapore’s tropical coastal-marine ecosystems and (2) quantify their ecosystem service values. This research will require a mixed-methods approach using data collection, GIS, land-satellite imagery, and spatial modelling techniques. The results of this research will be compiled with results from supplemental analysis in an interactive decision-support tool to guide government officials and stakeholders in future urban development.

KEYWORDS: Ecosystem services; land reclamation; natural capital

Native to west Texas, Sasha attended Texas Tech University for her BS in Natural Resources Management and Wildlife Biology and MS in Wildlife, Aquatics, and Wildlands Science and Management. She came to NUS as a PhD student in January 2018 with a background in spatial modelling and certified in Geographic Information Science and Technology. Thus far, her research has focused on better understanding the negative effects of aquatic invasive species using mesocosm experiments and species distribution modelling techniques. Her greater research interests include conserving biodiversity in at-risk regions like tropical mangrove ecosystems and identifying catalysts that contribute to coastal degradation.
EXAMINING THE IMPACTS OF LAND USE DECISIONS ON FIRE IN THE INDONESIAN PEATLANDS

TAN ZU DIENLE, PhD Student

Abstract: Tropical peatlands in Indonesia are increasingly degraded through land conversions for agricultural purposes. In the process of conversion, fire is frequently employed as a tool to clear land and contest ownership, resulting in haze episodes that affect the nation and neighboring countries. Following the particularly severe haze of 2015, stakeholders from various sectors have responded by spearheading initiatives to reduce fires. Many of these initiatives are targeted at village-based efforts to increase fire awareness and implement burning-free practices.

My research aims to understand how land use affects fire distribution in Indonesian peatlands. The research will combine modeling, spatial analysis and interviews to explore current and/or historical burning practices, how perceptions of fire affect their usage and the impacts of changing land use decisions on fire occurrences across multiple scales. Ultimately, the research hopes to contribute to the wider discussion of sustainable land use practices and improved fire management strategies.

KEYWORDS: Land-use land-cover; peat; fire management

Zu is a PhD student at the NUS Department of Geography and part of the SSRC Transboundary Environmental Governance of the Commons Project. She holds a M.S. in conservation ecology (University of Michigan) and B.S. in restoration ecology (University of Illinois Urbana-Champaign). Prior to joining NUS, Zu worked as an outdoor environment educator for at Bainbridge Island, Seattle. She enjoys exploring and is excited to start her work here in Southeast Asia.
AN INVESTIGATION INTO LOCAL AND TRANS-BOUNDARY POLLUTION HISTORY IN SOUTHEAST ASIA

ALEX FINNEGAN, PhD Student

Abstract: Southeast Asia is undergoing rapid social, economic and industrial development. One consequence of these dynamic changes over the past ca. 30 years, has been the accelerated environmental degradation of the regional biophysical environment. This study aims to quantify some of these changes with emphasis on the coastal and marine environment. The marine environment holds particular relevance as it represents a vital social, economic and food resource to many coastal communities. It is also the ultimate sink for many pollutants from the land and communities upstream, leading to a magnification effect. The study will examine a stretch of coastline which characterises several manifestations of rapid development. The project will utilise sediment cores from locations of interest and examine these in-profile, commenting on the temporal distribution of the data. The study will expect to find a parallel with pollutant quantity and economic development in the region.

KEYWORDS: Microplastics; marine; pollution

Alex is from the UK. He undertook his undergraduate studies at the University of Leicester (BSc Geography) with a year abroad at Texas A&M University. After graduating in 2014, he went up north to Newcastle University completing his MSc in Petroleum Geochemistry. After an insightful couple of years working for a multinational software development company in London, Alex decided to follow one of his long-time ambitions; returning to academia and was accepted onto the PhD program at NUS for January 2018 start. Alex’s interests are broad, including; environmental change, organic geochemistry and broader-environmental issues.
Abstract: The Tibetan Plateau (TP) is the headwater of most large Asian rivers: Indus, Ganges, Yarlung Tsangpo-Brahmaputra, Irrawaddy, Salween, Mekong, Yangtze, Yellow, Tarim and Amu Darya. These rivers contribute significantly to global land-ocean material flux and substantially influence global environment. For instance, the TP rivers annually transport 3,500 km³ water discharge and 2 billion (t) suspended sediment load into the ocean. With climate change (temperature, precipitation and glacier retreat) and intensified anthropogenic effects (water transfer projects, land cover changes and agricultural-industrial activities), soil erosion and sediment load changes in this region are expected to be dramatic. Therefore, it is important to study the spatio-temporal variations of sediment load of the TP rivers, explore the driving factors of these changes and predict their future changes. Knowledge of this field is essential for soil and water conservation and river basin management on the TP.

KEYWORDS: Climate change; sediment load; Tibetan Plateau

Dongfeng joined NUS in August 2017 as a PhD candidate in Physical Geography. He holds a Master degree in Hydraulics and River Engineering from Wuhan University. His previous research was to design waterway and flood control projects using both physical models and hydro-morpho-dynamic simulations. He is also a landscape photographer and has strong interest in mountains and rivers. His current research interests lie in climate change, hydrological processes and fluvial geomorphology on the Tibetan Plateau. His PhD fieldwork will be in collaboration with the Changjiang Water Resources Commission, Wuhan University and Institute of Tibetan Plateau Research, Chinese Academy of Sciences.
SESSION 2:
EXPLORING MOBILITIES & MIGRATION

Photographed by: Heng Su Li
MOBILISING THEATRE: ACTORS IN CREATIVE CITY SINGAPORE

MEERA NAIR, Master’s Student

Abstract: My research seeks to investigate the mobilities of Singapore actors within theatre landscapes locally and internationally. Since the early 2000s, theatre has played a larger role in cities as they aspire to ‘Creative City’ status. Central to this aspiration is the perceived mobility of creative workers, characterised as an ability to migrate easily to desirable cities within or across countries. In reality, the mobility of creatives encompasses more than just migration to include a range of movements across smaller scales, for instance, within the city and within designated ‘arts spaces’. Furthermore, these mobilities not only engage with the material landscape but are embodied by creative workers, resulting in an emergent landscape that is dependent on the creative worker’s subjectivities.

By engaging in interviews with theatre actors and doing participant observation, I seek to examine how state intervention and theatre practices result in patterns of actor mobilities through the material theatre landscape, how these mobilities are embodied by actors and expressed through the emergent theatre landscape, as well as how actor mobilities enact change upon the theatre landscape. By studying theatre actors’ lived experience of mobilities and the ways in which they engage with the theatre landscape, this thesis responds to calls for geography to engage more deeply with the performing arts.

KEYWORDS: Landscape; mobilities; theatre

Meera Nair joined the NUS Geography department in January 2018 as a Masters student. She graduated with a Bachelor of Social Sciences (Honours) from NUS in 2012 and worked in urban planning in the Singapore civil service after her graduation. She is active in the arts, having spent her childhood learning dance and subsequently moving on to music and creative writing. Her most recent foray into theatre in 2015 serves as the inspiration behind her current research. Her research interests are broadly in the arts, culture, mobilities and cities.
Abstract: Thermal comfort refers to the conditions where an individual expresses satisfaction with his thermal environment, or the state in which he is not compelled to correct the environment. Studies of thermal comfort are usually conducted within a thermal environment because such situatedness enables researchers to identify the exact spaces in need of thermal improvement. Also, there has yet to be a universal index developed for thermal comfort assessment that transits across thermal environments. While situated analysis of thermal comfort benefits space-users, it neglects a group of users – pedestrians – who use spaces as sites of transit. The understanding of pedestrian thermal comfort is important because the Singapore government is encouraging pedestrian-walking for health, transport and/or environmental reasons. With pedestrian-walking volume expected to increase, it is essential to identify the thermal discomforts pedestrians experience during their transits so that their experiences can be improved. Therefore, this research aims to assess the ways in which pedestrian transitions across distinct thermal environments, specifically, indoors, semi-outdoors and outdoors, affect their thermal comfort.

This research will assess pedestrian thermal comfort objectively and subjectively, through quantitative measurements of microclimatic and physiological parameters, and qualitative surveys of pedestrians’ thermal comfort respectively. 20 participants will be engaged on a thermal walk, where they will traverse along a route in the National University of Singapore. The route will compose of various indoor, semi-outdoor and outdoor environments. The purpose of the thermal walk is to assess the relationship between the mobile measurements of the physical parameters and surveyed comfort, and to examine how pedestrian thermal comfort vary with the transitions across distinct thermal environments. The same participants will attend 8 sessions of thermal walks, with 2 sessions conducted in each (inter)monsoon seasons in Singapore. Analysis of the thermal walk data along seasonal differences will yield interesting insights on the seasonal variations in pedestrian thermal comfort in a hot-humid tropical city.

KEYWORDS: Pedestrian thermal comfort; hot-tropical climate; transitions
RELIGION AND THE FEMALE INDONESIAN DOMESTIC WORKERS

UMMU SYAFIQAH BINTE AZLAN, Master’s Student

Abstract: This research is inspired by Rachel Silvey’s work on the imagined geographies of gendered piety in an attempt to mobilize and discipline women’s transnational labour migration. As Silvey pointed out, religion is often mentioned as an aside rather than an explicit central feature of migration (2007). This research follows Silvey’s recognition on the importance of religion in migration and looks at how religiosity, religious practices and religious meanings change for Indonesian domestic workers in different socio-political conditions, and examines how migration affects these changes. Thus, I would like to compare how these three factors change across space: before they migrate (in Indonesia) and after migration in their destination countries. There will also be a comparison between Singapore – a secular country – and a more Islamic (religious) state like Brunei in order to see whether state policies have a role in the change. Whether these changes are state-imposed or imposed by their employers, and the probable role of religious institutions in this imposition are what I would like to find out in this research as well. Interviews with Indonesian domestic workers are essential in conducting this research. By doing this research, I hope that this helps in alleviating marginalization for the domestic workers by giving them an autonomy to their own religious beliefs and practices, create an awareness of their religious needs and to perhaps help in developing a more socially inclusive policy too.

KEYWORDS: Migration; religion; domestic workers

I graduated with a Bachelor’s degree in International Trade from the University at Buffalo after which I worked at Dow Jones as a Research Editor before starting my Masters in 2017. I have been active in conducting English Language programs in various schools in Indonesia and at the same time, I am currently an active volunteer at Aidha, a Singapore-based NGO that works to instil computer literacy and entrepreneurial skills for foreign domestic workers.
Abstract: My research centres on the return migration and reintegration experiences of Filipino highly skilled and professional migrants, or balikbayan professionals. I wish to study why balikbayan professionals return, how they experience reintegration into local industries and socio-cultural spaces, what factors enable or impede these processes, and how their reintegration contributes to urban transformations in Metro Manila. I specifically focus on the voluntary return and reintegration of Filipino highly skilled returnees (tentatively, the research explores architects, civil engineers, urban planners and related professionals). The study is motivated by two research questions. The first question asks: (1) How do Filipino highly skilled migrants experience return and reintegration? This inquiry considers return motivations and the social and institutional factors that shape reintegration. The second question probes: How do Filipino highly skilled returnees contribute to urban transformations in the Philippines? I draw on the concepts of migration infrastructure (Xiao and Lindquist, 2014) and reintegration strategies (Kuschminder, 2017) to develop what I call reintegration infrastructure, which foregrounds the spatialisation of return and reintegration in explaining highly skilled migrants’ experiences of these processes. I use an infrastructural approach to draw out the structural dimensions that set the institutional and socio-cultural contexts of return and reintegration, and the link to migrant agency. The study will entail semi-structured, qualitative interviews with Filipino highly skilled returnees, observation and visual documentation; gathered data will be analysed using thematic coding and discourse analysis. Overall, the research seeks to contribute to discourses on return migration, reintegration, urban change and development.

KEYWORDS: Return and reintegration; highly skilled migration; migration infrastructure
Abstract: Taiwan is experiencing acute sociodemographic changes stemming from an aging population, low fertility rates and changes to the reliance on the family to provide social welfare. Since the 1990s, demands for foreign labor in various labour-intensive sectors and domestic and care work have intensified. Over 640 000 migrant workers can be found working in Taiwanese factories, construction sites and homes. Paradoxically, labor migration became easier, costlier and more cumbersome for migrants as it is intensively mediated. The migration infrastructure is a notion that speaks to the state apparatus and its regulatory functions, commercial brokers, employers, international organisations and civil society actors. The rationalities, driving forces and strategies of these institutions and actors collide with each other as they move migrant women and profit from their commodified labor.

The objective of my doctoral research is to explore the relationship among the experiences of migrant domestic and care workers, their support networks, who are part of the labor, religious and feminist movements and the broader migration infrastructure of Taiwan. To do so, I aim to produce a multi-sited and mobile ethnography of migrants and their support networks in various sites of processual operations, interactions, tensions and frictions with actors of the migration infrastructure. By adopting migration infrastructure as a guiding concept, I hope to focus narrowly on this multifaceted space to understand the impacts of the mutations in this infrastructure on the everyday lives of migrants. Then, I will analyse how migrants as resistance subjects, navigate and negotiate these processes and how civil society actors reconfigure their advocacy and effort of collective organizing.

KEYWORDS: Domestic and care workers; civil society activism; migration infrastructure
EVERYDAY LIVES AND THE SOCIAL CONNECTIONS OF OLDER CROSS-BORDER MIGRANTS: GRANDPARENTING MIGRANTS IN SHENZHEN-HONG KONG

CAI FANGYI, PhD Student

Abstract: Hong Kong SAR is an international city close to Shenzhen, Guangdong Province. Despite the 1997 handover, the political boundary and a living standard disparity continues to characterise the divide between Hong Kong and Mainland China. Many pregnant women from Mainland China went to Hong Kong to give birth so that their children can acquire Hong Kong identity and receive education there. This policy was repealed in 2012, however, there now exists millions of children who are Hong Kong residents and have no permission to go to schools in Mainland China. Many live in Hong Kong and their grandparents migrate to Hong Kong to take care of their grandchildren. Such grandparents have different cultural and language backgrounds from Hong Kong residents. Studying their everyday lives and connections with their families and local communities will be helpful for understanding their experiences and giving advice on the construction of urban infrastructure.

My research engages with the conceptual themes of transnational migration and cross-border mobility, I will draw on in-depth interviews and GPS tracking, spatial analysis and visualization to investigate the internal driving forces of these grandparenting migrants and quantify the relationship between their space-time path and urban environment. My research objectives are to:

1. Provide a GIS visualisation of the everyday lives of grandparenting migrants
2. Combine interviews and spatial analysis to explore the variables that affect the lives of these grandparenting migrants
3. Propose changes to the construction of urban infrastructure to improve grandparenting migrants’ life quality.

KEYWORDS: Grandparenting migration; GPS trajectory; spatial analysis

Fangyi joined the Department of Geography in January 2018 as a PhD student. She holds a BSc in Geographic Information System and a MSc in Geo-Information Science from China University of Geosciences (Beijing) and The Chinese University of Hong Kong, respectively. She worked in ‘Big Data Supported Urban Land Use Mapping and Change Detection in Hong Kong’ project as a research assistant in The Hong Kong Polytechnic University. Her previous work focused on human mobility and urban environment in Hong Kong and Shenzhen. Her current research interests are related to transnational migration, human mobility and GIS.
SESSION 3: UNDERSTANDING THE POLITICS OF CHANGING LANDSCAPES

Photographed by: Heng Su Li
EXAMINING THE CRITICAL SPATIOTEMPORAL PERFORMATIVITIES OF “INNOVATIVE URBAN-NESS”: A CASE STUDY OF SINGAPORE AND ITS TRANS-URBAN “BLOCK71” DEVELOPMENT

GOH JIANRONG (JOHN), Master’s Student

Abstract: This proposed research will focus on Singapore to examine the critical spatiotemporal performativities of “innovative urban-ness”. Specifically, it will examine the “innovative” urban future-making practices surrounding Singapore’s “Block71” development—a trans-urban venture to catalyse technology start-up growth which has come to represent Singapore’s archetypal model of “urban innovation”. The proposed research draws upon Foucault’s lexicon—namely, “genealogy”, “regime of truth” and “governmentality” to ask: 1) How has “Block71” come to represent Singapore’s archetypal model of “urban innovation”? 2) How is this understanding of “urban innovation” normalised and mobilised through mechanisms surrounding, and extending beyond “Block71”? The proposed research, at this preliminary stage, intends to advance three interrelated arguments. First, it highlights that a dominant discourse of “urban innovation” emerged as a strategic decision to economise the time of life, and to harness the resource hinterland existing beyond the city. Second, it contends that the discourse of “urban innovation” is not neutral, but one that categorises, ranks and orders urban spaces and dispositions. Third, it troubles the underlying notion of “urban innovation” as “futuristic” and “novel” to understand the phenomenon as always existing. In so doing, it departs from conventional economistic readings of “urban innovation” to consider the process as a disciplinary mechanism. This is a governance problematic that has recently made its entrance into the ambit of state calculation.

KEYWORDS: Urban innovation; urban future; Block71

I am a full-time teacher and a part-time research masters student interested in examining the politics of urban futurity. My current areas of interest include innovation, entrepreneurial citizenship, entrepreneurial migration and high-tech/speculative architecture—particularly as they relate to the (re)making of urban future. I also have a longstanding interest in visual culture—both in theory and in practice.
PRACTISING RELIGION AT THE INTERSTICES OF SECULARISM: THE PLACE OF ISLAM IN SINGAPORE

RAEDI HAIZER BIN SIDIK, Master’s Student

Abstract: Singapore’s brand of secularism has typically been lauded as “religion friendly” and “successful” due to its claims to guarantee equal opportunities and space for each of its main religious groups to thrive. Such opportunities, however, are conditional and not absolute, more so in the context of Singapore’s public spaces. In this context, I hope to examine the experiences of young Muslims with praying in public, makeshift spaces as a way to understand the place of minority religions such as Islam in multi-religious and secular Singapore. Put differently, I argue that such experiences and oft-fleeting spatial appropriations can reveal a great deal about the ways in which the “religious” and the “secular” are encountered and negotiated in public spaces. Moreover, given the oft-secluded nature of these makeshift prayer spaces, I also seek to examine if access to such spaces — and thus the ability to practise Islam more publicly — is gendered.

In order to untangle these questions, I will draw upon three main methods, all of which positions the body at the centre of the interrogation. First, respondents will be asked to keep an audio-/diary of their experiences with praying in makeshift, public spaces as means of gaining insight on the emotional and affective dimensions of prayer, and how this affects where they choose pray. Second, I hope to undertake auto-embodied ethnographies of the spaces identified by my respondents as a means of better understanding their embodied experiences in these spaces. Finally, I intend to bring these together using semi-structured in situ interviews.

KEYWORDS: Religiosity and secularism; public space; body

Haizer joined the Geography Department in August 2017 upon completing his undergraduate degree in the same department. He is broadly interested in the fields of feminist and political geography, with keen interests in issues relating to gender, race, and religion. His current research interest centres on the ways in which the “religious” and the “secular” interact, and are encountered and negotiated, in Singapore’s public spaces.
ALOYSIUS TAN YOKE JUN, Master’s Student

Abstract: There exists significant Western-centric geographical research on children’s agency (Skelton, 2007; Hörschelmann & van Blerk, 2012) and use of public spaces for play (Veitch et al., 2007), but little in the context of Asia, particularly Singapore. Guided by discourses promoting the importance of outdoor play for children’s development (Woolcock et al., 2008; Bento & Dias, 2017), I explore children’s geographies of play in everyday urban spaces in Singapore. My research questions are three-fold: 1) Do Singapore’s urban spaces facilitate spontaneous encounter/play for children? If so, how and where is this achieved? 2) In what ways do these spaces allow children to co-construct and perform their childhoods? 3) How child-friendly are Singapore’s urban spaces?

I adopt a child-centric methodology – participatory methods of ‘photovoice’, imaginative drawing/writing, semi-structured interviews and go-alongs – to garner children’s perspectives. I then juxtapose these with insights about existing child-friendly state efforts, gained via formal interviews with urban/housing planners.

I utilise the concepts of the ludic city (Stevens, 2007), child-friendly city (Fincher & Iverson, 2008) and New Social Studies of Childhood (Holloway & Valentine, 2000) to guide my research. I seek to engage in children’s voices to understand how their spatio-temporal practices in everyday spaces allow them to shape their lives as social actors in their own right. Ultimately, I hope to contribute to growing literature of Children’s Geographies in Singapore and value-add to existing urban planning policies, by highlighting the importance of including children’s voices in urban design — to plan with children, not just for children.

KEYWORDS: Child-friendly city; play; Singapore

I am a first-year Master’s student, having previously received my Bachelor of Social Sciences in Geography from the National University of Singapore. My Master’s research focuses on the intersection of children’s outdoor play and urban space in Singapore. On the side, I am also currently exploring the representations and politics of children in Chinese film. If you ask me about my thesis progress, I will tell you that researching on child’s play is no child’s play.
TOWARDS A TRULY SUSTAINABLE SINGAPORE: THE NECESSITY OF REDEFINING ENVIRONMENTAL RHETORIC IN SINGAPORE

CLAIRE OEI HUI HSIA, Master’s Student

Abstract: In the 1960s, the Singapore government rose up to the environmental challenges posed by rapid urbanisation and industrialization. The government developed environmental policies that were befitting of Singapore’s circumstances, of which the notion of “clean and green” arose. Since then, building Singapore into a “clean and green” country has been a national goal, forming the backbone of policies, institutions and public messaging with regards to the environment. As the world pushes forward with the Sustainable Development Goals, Singapore has jumped onto the sustainability band wagon and introduced sustainability policies as part of the national “clean and green” vision. However, Singapore has not fully embraced efforts to achieve all the Sustainable Development Goals and has remained selective in setting Singapore’s sustainability agenda. My thesis attempts to explore the historical development, ideological construction and strategic implementation of Singapore’s sustainability agenda. In doing so, my thesis aims to understand the scope, prioritisation and efficacy of sustainability policies in Singapore as well as to understand the political ideologies and rhetoric that legitimate policy implementation.

KEYWORDS: sustainability, sustainable urban development, Singapore environmental governance

Claire Oei is currently a Masters student with the Department of Geography at the National University of Singapore. She received her Bachelor of Science in Resource and Environmental Management and a Bachelor of Laws (with Honors) from the Australian National University. Claire previously worked for the Climate Change Programme Department at the National Environment Agency (NEA) in Singapore working on Singapore’s national greenhouse gas inventory, climate change policies and environmental sustainability policies. She was also part of the Singapore delegation that participated in the United Nations Framework Convention on Climate Change Conference of Parties talks. Her work at the NEA proved truly inspirational for her current Master’s thesis topic.
SITUATING LAND CONVERSION IN SOUTHEAST ASIA: STUDIES IN URBANISATION, LANDUSE AND MIGRATION STUDIES IN THE EXTENDED METROPOLITAN REGIONS OF JAKARTA

MIYA IRAWATI, PhD Student

Abstract: This study will examine the process of urbanisation in Southeast Asia by focusing on the land conversion from agricultural to industrial and residential uses. It considers urbanisation to be more than the changing ratio of rural-to-urban population, but as a far reaching process that affects cities, hinterlands and rural areas in different ways (Brenner and Schmid, 2014). The study will focus on the spatial effects and characteristics of urbanisation in urban-rural (desakota) area such as land-use, infrastructure and technologies (McGee, 1991). It will do so by looking at peri-urban regions proximate to cities and rural regions distant from cities in Indonesia, and by studying the economic and social ties between them through concepts such as ‘remittance landscape’ (McKay, 2005; Rigg, Salamanca and Thompson, 2016). This research will involve quantitative and qualitative methods for data collection and analysis. A 24-year data range (1994-2018) is proposed as the primary time frame. The significance of this research is conceptually to redefine urban-rural area according to the research context in Indonesia. Secondly, the existing literature on urbanisation in Southeast Asia will be tested and refined. The study aims to develop a stronger policy framework for urban and regional planning in Indonesia, and to make theoretical contributions to urbanisation studies in Southeast Asia.

KEYWORDS: urbanisation, rural-urban area, agricultural land conversion

Miya Irawati is a PhD student in Geography-NUS. She is also an Urban-Rural Systems researcher at the ETH Future Cities Laboratory in Singapore. She holds M.Sc. degree in Construction and Real Estate Development from a joint study program of HTW Berlin and Helsinki Metropolia and B. Arch degree from Trisakti University in Jakarta. She has conducted various research projects ranging from policies to pilot initiatives in Indonesia by assisting the Indonesia government, municipalities, the World Bank, UN Habitat, and UNESCO in focused areas of housing and settlement, slum upgrading, local economic development, and spatial planning in Indonesia. She is the Executive Board of the NGO ‘Partner of the Environment Fund’, where she mediates between the Indonesian government, civil society, and the private sector in solving environmental problems in Indonesia.
(RE)PRODUCTION OF THE MEKONG SOCIO-NATURE

SUMIYA BILEGSAIKHAN, PhD Student

Abstract: My current research seeks to understand socio-nature transformations in the Mekong by exploring how growth-oriented development policies, particularly its material manifestations in hydropower development, are redefining not only social and political relations but also the use and relation of water, land and other interrelated, transboundary commons of riparian communities.

The project undertakes the inquiry by convening in three conversations - geographical readings of enclosures and common(ing)s, political ecology scholarship on production of nature/space, and the concept of socio-nature. By conceptualising the landscape as a socio-nature, enclosure and commoning as processes, and commons as co-produced, this study plans to take a comparative approach to (i) understand the everyday geography of place (commons)-making, and (ii) situate ‘actually existing commons’ in different socio-nature contexts along the river.

KEYWORDS: Mekong commons; socio-nature; enclosure

Sumiya is a PhD candidate at the Department of Geography, NUS. A native of Ulaanbaatar, Mongolia, she holds a BSc in Biology (National University of Mongolia) and MCP in Environmental Planning (Seoul National University).

Before joining NUS, she worked in the international development sector - water management, sustainable supply chains and conducted research on environment and urban migration in Mongolia and Thailand.
Sharon is a first semester Master’s student working on political geography. She had previously received her Bachelor’s of Social Sciences in Geography from the National of University of Singapore. Her current research focuses on subaltern and liminal geopolitics—specifically, the Turkish geopolitical tradition. She aims to explore how Turkish geopolitical imaginations may be projected abroad, and how they may feature in the everyday practices of geopolitics. She is currently also learning the Turkish language in order to draw on various Turkish archives and better understand them in their original context. Her other research interests include popular geopolitics and feminist geography.
On behalf of my fellow research students, I would like to say thank you to our guests, for your active participation during the Workshop. Your feedback will be invaluable for the coming months and years as we seek to establish ourselves in the academic world as Masters and PhD students.

The experience of putting on this event has been very beneficial to the development of the group. For many of us, this was a daunting exercise at the start, as we were given just two things: a date and venue. Since that point, we have really made this event our own, hopefully putting on one of the best workshops in its 6-year history. It has been a great way to get to know one another and make friends in the process; as many of us have recently moved to Singapore and are beginning to settle down into our new lives here. We have learnt from one another, building skills in events management, planning and co-ordination between groups. As this is a large event to organise, we have trusted one another to complete tasks, to an agreed and well-defined timeline.

Speaking from personal experience, each presentation today marks a defining piece of work for us as individuals, representing many hours of time and effort. This has been shaped by our research and past experiences during our time here at NUS, and from the years we have spent at other institutions, work experience and interests outside academia. This is truly a celebration of the interesting and diverse people we have presenting, and the contribution that our combined experiences can bring to the department and university. We are grateful to be brought together by our chosen discipline Geography, understanding the multifaceted nature of this unique subject. As geographers, we unite under the importance of human interactions with one another and the environment; both natural and manmade. We take responsibility where others do not; in seeking solutions to many of the world's problems, highlighting and exposing issues which need a voice, and in celebrating the success and achievements that humanity makes every day.

To the research students presenting during the workshop: together, we have embarked on an exciting journey which will take us to places we never imagined, both literally and metaphorically! We each have a fantastic opportunity here, in a coveted department, at a truly world-leading university, to make a difference and to be future leaders in our chosen disciplines. Thank you everyone for your hard work and co-operation, making this event possible. One final and sincere thank you to Professor David Taylor, for his useful and valuable insight during the GE6770 Graduate Research Seminar module. I speak for everyone in saying that the advice we have received will shape our research and provide us with the tools for success in the future.

With thanks,
Alex Finnegan
Chair of 2018 GRS Workshop