

# DS18

## MONSOON ASSEMBLAGES MYANMAR

2019



### FIRST YEAR

Tamanna Akhter  
Jesmine Bath  
Aimee Daniels  
Katie Dechow  
Dagmara Dynar  
Charlotte Grasselli  
Kate Hosking  
Sara Kosanovic  
Una Ledal  
Ioana Ungureanu

### SECOND YEAR

Raymonde Bieler  
Thom Blain  
Aimee Cornelius  
Lidia Gherghie  
Fiona Grieve  
Elisabetta Lafratta  
Omar Manshi  
James Purchon  
Patricia Trivino  
Rachel Wakelin

### TUTORS

**Lindsay Bremner:**  
Is a Professor of Architecture and  
the Principle Investigator of the  
Monsoon Assemblages project.

**John Cook:**  
Is an architect and Research  
Associate for Monsoon  
Assemblages.

**Ben Pollock:**  
Is an architect at Jestico + Whiles  
and co-founder of 4D island.

### GUEST CRITICS NAMES AND AFFILIATIONS

**Nerea Calvillo,** University  
of Warwick, Centre for  
interdisciplinary Methodologies

**David Chandler,** University  
of Westminster, Politics  
Department

**Beth Cullen,** Monsoon  
Assemblages

**Nick de Klerk,** Aukett Swanke  
Architects

**Melanie Dodd,** Central St.  
Martins

**Tumpa Fellows,** University of  
Westminster

**Christina Geros,** Monsoon  
Assemblages

**Jan Goodbun,** RCA

**Alex Gordon,** Jestico + Whiles  
Architects

**Susannah Hagan,** Professor  
Emerita, University of  
Westminster

**Constance Lau,** University of  
Westminster

**Jane McAllister,** The CASS,  
London Metropolitan University

**Oscar McDonald,** Space Syntax

**Laura Nica,** Marek  
Wojciechowski Architects

**Michael O'Hanlon,** DSDHA

**Richard Portsmouth,** Birds  
Portsmouth Russian Architects

**Calvin Sin,** Jump Studios /  
Populous

**Julia Stefan,** //idigrep

**Alice Thompson,** MATA  
Architects

**Alex Watt,** Eric Parry Architects

**Charles Weston Smith**

### SPECIAL THANKS

The Quinton Hog Trust and  
Monsoon Assemblages for  
funding for the field trip

## The Playground for Intronaotic Astronauts

Aimée Daniels



This project is about religion and spirituality in Myanmar, drawing connections between religion and territory. Myanmar is a predominantly Theravada Buddhist country where social life and religion are inseparable. The nation employs two calendars, the Civil calendar for every day affairs, and the Burmese calendar to determine the dates of festivals, which are celebrated on full moons and deeply enshrined in Buddhist tradition. I designed the Playground for Intronaotic Astronauts as an architectural and astronomical observation park with full moon monuments driven by the rich narratives of Burmese festival culture.

## Yangon's Pottery Innovation Project

Charlotte Grasselli



Pottery and ceramics have played an important role in Burmese society for centuries, forming an industry which was once one of the most respected in South East Asia. However, with the rise in plastics, the traditional need for pottery in everyday life reduced, causing the industry to decline. The project proposes a new institution, the Yangons Pottery Centre to promote and regenerate the Burmese pottery industry. It is located in downtown Yangon in the former Divisions Court and a new extension. It comprises exhibition spaces, workshops, and research innovation laboratories. A pot's components, properties and states have been analysed and explored to inform the form, materiality and aesthetic of the building.

## Harvest Flower Pavilion

Kate Hosking



The rice industry is the largest agricultural industry in Myanmar with over half the country's arable land used for producing rice. In recent times, rice production has been augmented by the use of fertilisers which have contaminated groundwater and rivers. The project comprises paper flowers that measure the water pH of water run off from rice fields and are released to float down the river. They are collected for analysis in a pavilion that is part of a water purification landscape that uses natural water-based plants to produce purified water for local consumption.

## International Institute of Methane Reduction

Katie Dechow



The IPCC have stated that globally, 20% of our anthropogenic methane emissions come from rice cultivation. With over half of Myanmar's arable land being used to farm rice it is estimated that as a country 4.5 million tonnes of methane is produced annually. The IMIR acts as a central hub where the collective goal is to educate the community into forming new low-emission habits. The institute consist of an exhibition space, laboratories, methane storage and reward scheme and a series of inflatable spaces which make use of the stored methane. A giant canopy held up by methane balloons acts a beacon to attract people to site.

## Mogok Collective

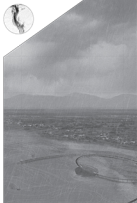
Dagmara Dynar



The Mogok Collective is designed to bring transparency to the ruby industry in Myanmar. It is situated in Mogok, which is a recognised supplier of rubies. The town produces over 15 tonnes of raw material, containing roughly 900 carats of rubies, every day. The Collective houses negotiation between the Burmese government, mine owners, national, local and export traders, researchers and Mogok residents, but puts miners themselves in the centre of negotiations. The building consists of an amphitheatre, an underground gallery, private debate rooms and laboratories where data about rubies, as well as the stones themselves, can be studied and monitored.

## The Mercury Research & Health Institute

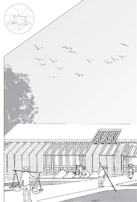
Sara Kosanovic



The Mercury Research and Health Institute is a health and education focused institution based in the most heavily mined areas in the north of Myanmar. It will educate the public on the effects of mercury-contamination from the gold mining industry. Its research will concentrate on alternative methods of mining that do not utilise mercury, more efficient water filtration systems, and more effective mining and panning methods. This will aid in the medical treatment of miners with health issues resulting from the use of mercury during the mining process. The ultimate aim of the institution is to contribute solutions to the medical and environmental problems that heavy mining creates.

## Irrawaddy's Salt Farm

Ioana Ungureanu



The Irrawaddy Salt Farm is intended as a prototype for salt farming across the Irrawaddy Delta in Myanmar. It uses an innovative method of making salt by extracting it from mangrove mud. It thus represents not only a way of reviving salt production as an industrial and cultural aspect of the region, but also a way of mitigating the landscape through reforestation of mangrove forests. The programme involves a combination of natural elements: mangroves, mud and salt, tied together through everyday architecture. A salt extraction canopy gives the farm its distinctive appearance.

## Myanmar Mercantile Shrimp Exchange

Tamanna Akhter



This proposal is a Futures Market for Shrimp trading in Yangon. Due to its increasing economic value and high demand, Myanmar's Mercantile Shrimp Exchange incorporates an international network in order to subsidise the current industry. The scheme comprises 10 components making up a new infrastructure through the intentional overlapping and intersection of various programmes such as a sushi bar and mini golf course. Through social architecture, it aims to enhance the productivity and efficiency of shrimp farming enabling farmers to profit during the slow breeding process.

## Hsipaw Forest Collective

Jessmine Bath



Hsipaw Forest Collective merges with the forest it protects, achieved through materiality and experience. The building invites visitors to meander through each level, transitioning from a dense arrangement of columns to openness, translating the structure of the forest using architectural elements. The roof system mimics the forest canopy, by creating a topography with collection points for the rains during the monsoon. The water trickles through the building via open copper drains, inspired by the pagoda form. The most important spaces are the knowledge exchange and presentation floors which facilitate open discussion among all parties involved in a forestry co-management scheme.

## Circular Railway Tea House

Una Ledaal



Drinking Lahpetey/sweet milky tea, is a big part of everyday life in Myanmar. Tea has always been an important part of Burmese culture. Teahouses are located on every corner and in every market around the country. They are used as meeting places for discussion and conversation. Located on the Yangon Circular Railway, the Railway Tea House is a moving tea house used as a place for tea drinking, learning and discussion about the potential effects of climate change on the tea industry.

## The Smiling Dolphin Embassy

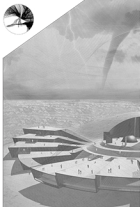
Elisabetta Lofratta



The Smiling Dolphin Embassy is a building designed to augment sound, sensory experience and communication between Irrawaddy dolphins and humans. The aim of the project is to make the local fishermen and the villagers in Myanmar more aware of sound creation and noise pollution, one of the causes of the Irrawaddy dolphins' critically endangered state. The Smiling Dolphin Embassy will potentially become a tool to harness the extraordinary intelligence of dolphins to further develop cooperative fishing and to make a contribution to finding solutions to acoustic pollution in the river.

## The Sacred Cyclonic Shelter

Aimee Cornelius



Natural hazards in Myanmar include destructive earthquakes and cyclones, flooding and landslides that are common during the rainy season. Cyclones, which are large-scale rotating storms that generate high winds have caused mass fatality in the coastal areas due to lack of shelters. This project encompasses a sequence of distinctive wind chimers that serve as a cyclone warning system and a Sacred Cyclonic Shelter, which is used as a sacred space for most of the year and a cyclone shelter when disaster strikes.

## Data Flows: Digitalising The Irrawaddy River

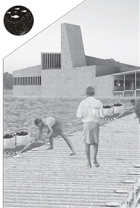
Patricia Trivino



This project aims to construct a system of communication between Irrawaddy river and its human users. It proposes a way of preserving the Irrawaddy river as a visible method of transport and for conserving it. Its purpose is not to directly bring a solution to the problems of navigating the Irrawaddy, as much as to communicate the invisible, changing river landscape through a visible, dynamic platform of data.

## Hilsa Lane

Omar Manshi



This project is about creating a safe passage within the Irrawaddy River for hilsa fish. It is currently under threat due to a number of anthropogenic factors. In the part of the proposal developed for the project, a series of buildings are designed to store salt and charcoal. The salt is used to promote phytoplankton growth for fish to feed on and the charcoal to clean the water. In addition lilies are used to create a darker environment to attract the fish, as they are light-phobic and the bamboo walkway helps prevent the problem of overfishing as fishermen cannot cast huge nets past the edge.

## Shwe Recuperation Corridor

Fiona Grieve



The Shwe Recuperation Corridor explores how a fossil fuel pipeline could potentially be transformed from an object of destruction and loss to an instrument of social reform and compensation. The corridor comprises a network of instruments, heat taps and tribunals that together deliver justice and raise awareness of the social and environmental impacts of foreign investment in Myanmar, focusing on the Myanmar-China Gas and Oil Pipeline in particular. The Shwe Energy Tribunal hopes to learn from and remedy some of the mistakes made during the construction of the pipeline, through the provision of services that provide an openness and clarity to an industry previously not afforded to the Burmese people.

## Avian Air: A Tropicseric Bird Sanctuary

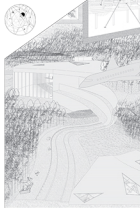
Rachel Wakelin



Storytelling realises anthropological concepts otherwise unseen. By engaging with the story of an everyday entity, affected by climate change, our changing environment can become more tangible. Migration patterns of birds are dramatically changing and the link to climate change is fundamental. This bird watching tower is a hybrid typology of bird watching and data display of migration and climate. The intention is climatic communication, through an experiential journey intended to converge the human experience with the non-human entity of birds.

## Regulating The Land Of Treasure : A New Jade Standard

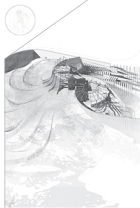
James Purchon



Currently, the predominantly illegal jade mining accounts for half of Myanmar's GDP. Set in 2030, this building will perform a series of new regulations from a previously ignored environmental management plan based on increased transparency and smaller scale jade mining. Just outside the notoriously corrupt Hpukant Township, the jade currency will be controlled by integrating all industry processes within a networked satellite system of infrastructure from mine to Hpukant and beyond. The building will begin to remediate and reflect the surrounding landscape and ecology, whilst spatially exploring the structural and geological qualities of jade and the mining itself.

## The Chaung Gyi Archipelago

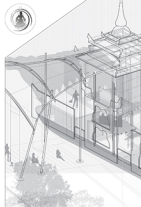
Raymonde Bieler



The Chaung Gyi Archipelago aims to explore displacement solutions for the population of Chaung Gyi, a village located at the junction between the Irrawaddy river and its delta. The village loses a critical amount of land to erosion every year. The eroded sediments are transported downstream and deposited in other parts of the river. The concept of the masterplan is to harness those sediments, enabling the creation of islands and to stabilise the land to create livable spaces for the affected communities. This new land is managed by the River Registry, a civic institution dealing with the claiming and negotiation of the land.

## The Activist Puppet Theatre

Lidia Gherghe



This project is an activist puppet theatre to inform and engage the public in protest against the social, economic and environmental consequences of dam construction in Myanmar, focusing on the Myittha dam. It embraces the unique culture and history of Burmese puppetry while emphasising the features of Irrawaddy River that will be affected by dam construction. It allows the public to get involved and participate in the activist movement by telling their own stories about river.

## Forest Protection Outpost

Thom Blain



The forests of Myanmar have been exposed to heavy deforestation over recent decades. This proposal aims to generate a new relationship with the forest, one where humans and the natural world intersect in a system of exchange. The building acts partly as an embassy, showcasing the beauty of the natural forest and its current health. In addition, a border control filters and monitors the flow of natural resources and humans in and out of the forest. The aim of the architecture is to make use of local knowledge of the forest by placing the members of the local community at the centre of the running of the Forest Protection Outpost.

# STUDIO DESCRIPTION

"The studio worked in Myanmar, a monsoonal territory currently being rapidly transformed by climatic, industrial and agricultural

which human and non-human ways of being and ways of knowing are taken into account.

This was the third and final of three DS18 studies contributing to the research agenda of Monsoon Assemblages, a five-year long research project funded by the European Research Council (ERC). This year the studio worked in Myanmar, a monsoonal territory currently being rapidly transformed by climatic, industrial and agricultural pressures. It was framed by the idea of 'cosmopolitical design'. This is based on the realisation that what used to be called nature (weather, climate, a river etc.) is no longer a stabilising pattern or a backdrop for human activity. Instead nature is created, instigated, composed and undone at every moment. It rejects the modernist idea of nature as external to human experience and able to be mastered by architects, engineers and scientists from the outside. Instead, it explores what design might be if it is practiced as an active process of manipulation and reworking nature from within, in

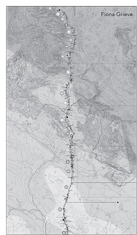


Thom Blain

# MAPPING THE COSMOPOLITICAL RIVER

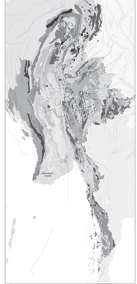
**BRIEF 2**

The aim of this brief is to research and map the Ayeyarwady-Chindwin River Basin from the perspective of a non-human entity. Central to this brief is the idea that a river is not a body of water flowing between two banks, but a complex, dynamic system, that extends across its entire basin, beneath the earth, on the surface and into the atmosphere, and that changes over time, across seasons and in response to numerous pressures - a river is this entire spatio-temporal system.

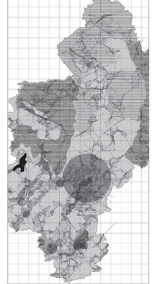


Fiona Grieco

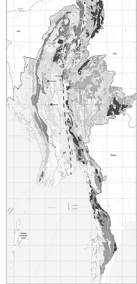
Geological Map Related to Ruby-Dagmara Dynar



Geological Map Related to Jade - James Poshon



Geological Map Related to Gold - Sara Kossanovic



# SIMULATING A RIVERINE PROCESS

**BRIEF 3**

The aim of this brief is to simulate a riverine process encountered by the chosen entity, in order to visualise, model and study the river as a dynamic system. Thus developing a spatial and temporal sensibility and intuition towards material dynamics.

# AUGMENTED SENSORIA

**BRIEF 5**

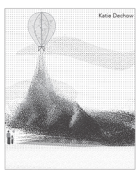
The aim of this brief is the design and prototyping of an instrument to make an imperceptible / invisible aspect of some non-human entity or its habitat in the Ayeyarwady-Chindwin River Basin perceptible to humans.



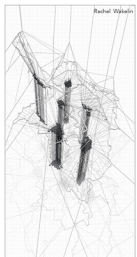
Sara Kossanovic



Aimee Cornelius



Katie Deshpande



Rachael Walsby

# FROM INSTRUMENT TO COSMOPOLITICAL FORUM

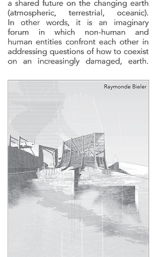
**PROTOTYPE TO MICRO-PUBLIC-PLACE**

**BRIEF 6**

The objective of the final semester long brief of the year is to take you through a series of steps to unlock the potential of your first semester's work to generate the architecture of a new cosmopolitical institution in which the entity you have been researching and its human interlocutors negotiate a shared future on the changing earth (atmospheric, terrestrial, oceanic). In other words, it is an imaginary forum in which non-human and human entities confront each other in addressing questions of how to coexist on an increasingly damaged, earth.



Aimee Daniels



Raymonde Butler



Fiona Grieco

# MONSOON ASSEMBLAGES

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<http://www.monass.org>



European Research Council



Horizon 2020 European Union Funding for Research & Innovation

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