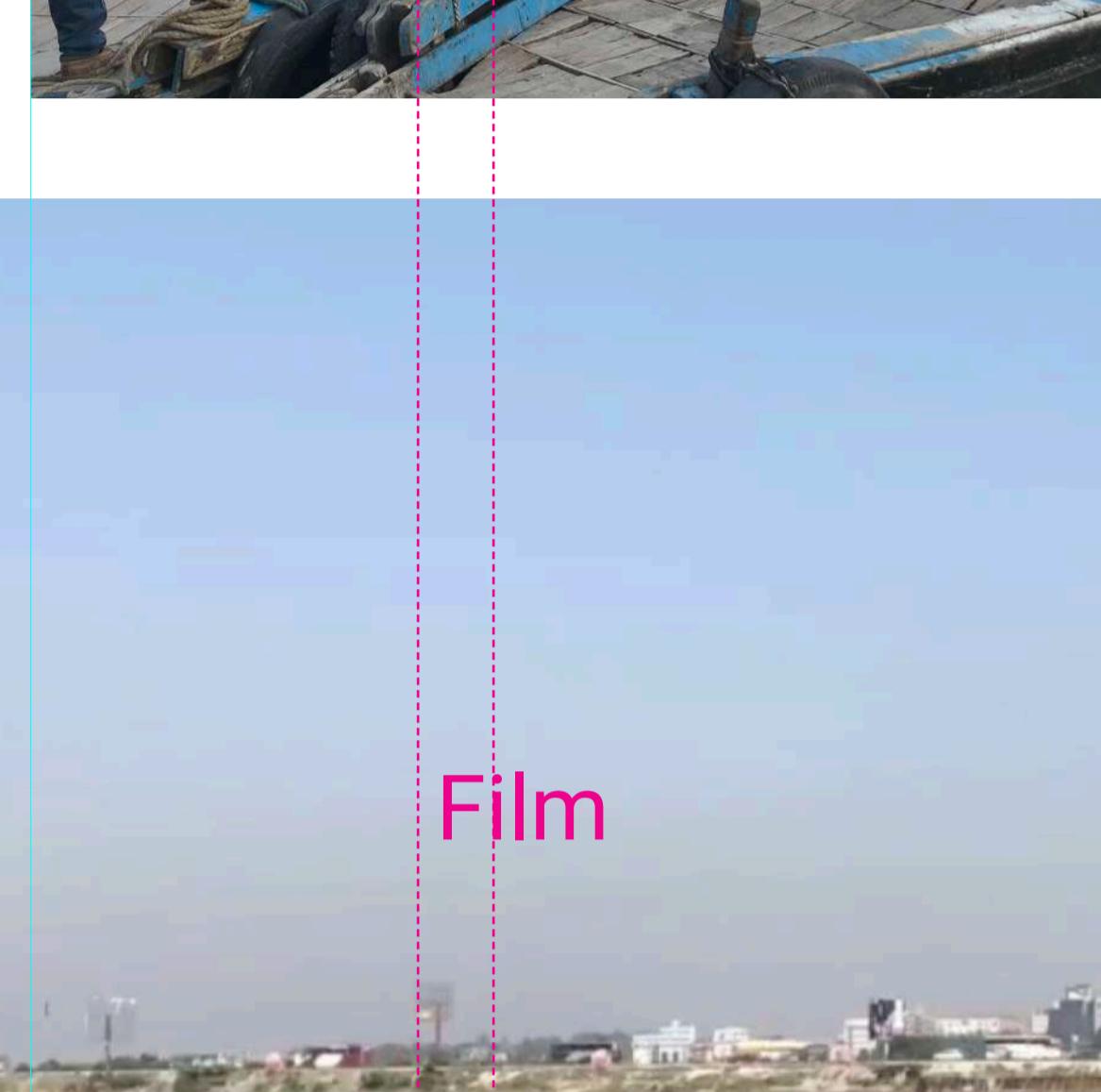


Grounding design pedagogy in the monsoon

GDF

Above: Digital constructions of rain-water droplets, Laura Nica.

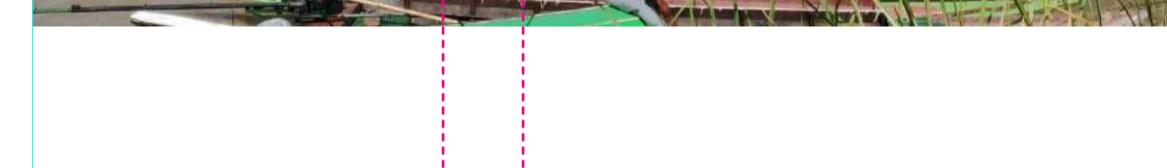
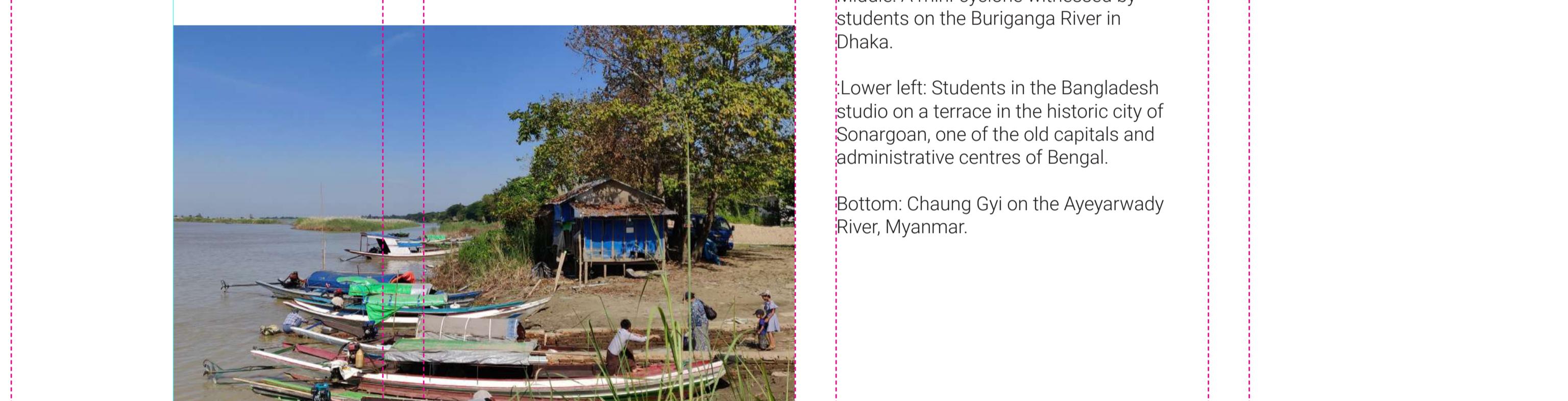
From 2016 to 2019 Monsoon Assemblages ran DS18, a design studio in the Master of Architecture programme at the University of Westminster. The studios were framed by the monsoon, meaning that atmospheric, ecological, material, socio-political and technological considerations were introduced into design processes and that scales normally considered too large or too small for architecture merited attention. Students investigated how design might be transformed if it was no longer an exclusive capacity of human designers acting on the world, but something shared with the material forcefulness of the earth itself.



Formulation

The Monsoon Assemblages studios were based in Chennai in 2016-17, in Dhaka in 2017-18, and in Yangon in 2018-19. Each approached the agency of the monsoon differently. The Chennai studio was animated by the agency of monsoon rain, a volatile and unreliable guide, oscillating between scarcity and excess. The Dhaka studio was formulated around relations between human agency and the material dynamics of the monsoonal delta. The Yangon studio approached the monsoon from a nonhuman perspective, asking students to reimagine a monsoonal world in common with a nonhuman entity threatened by the violence of extraction or development. The studios used three spatial research methods – cartography, simulation and fieldwork – to attune to monsoonal dynamics and to frame design briefs.

Film



Left top: Laura Nica at her final design review for the Chennai studio.
Lower left top: Students in the Bangladesh studio boarding boats in Khulna.

Middle: A mini-cyclone witnessed by students on the Buriganga River in Dhaka.

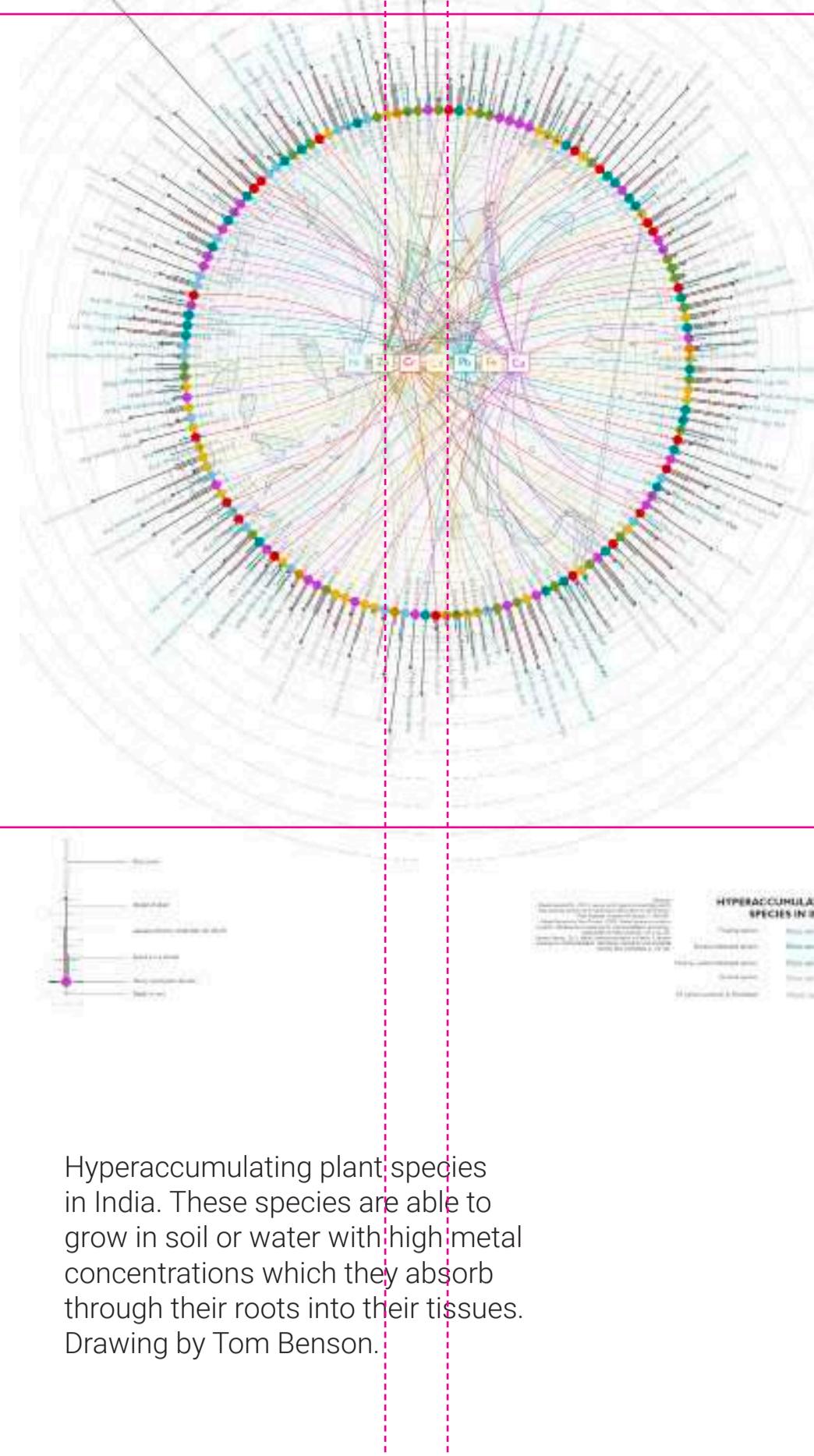
Lower left: Students in the Bangladesh studio on a terrace in the historic city of Sonargaon, one of the old capitals and administrative centres of Bengal.

Bottom: Chaung Gyi on the Ayeyarwady River, Myanmar.

Infrastructures

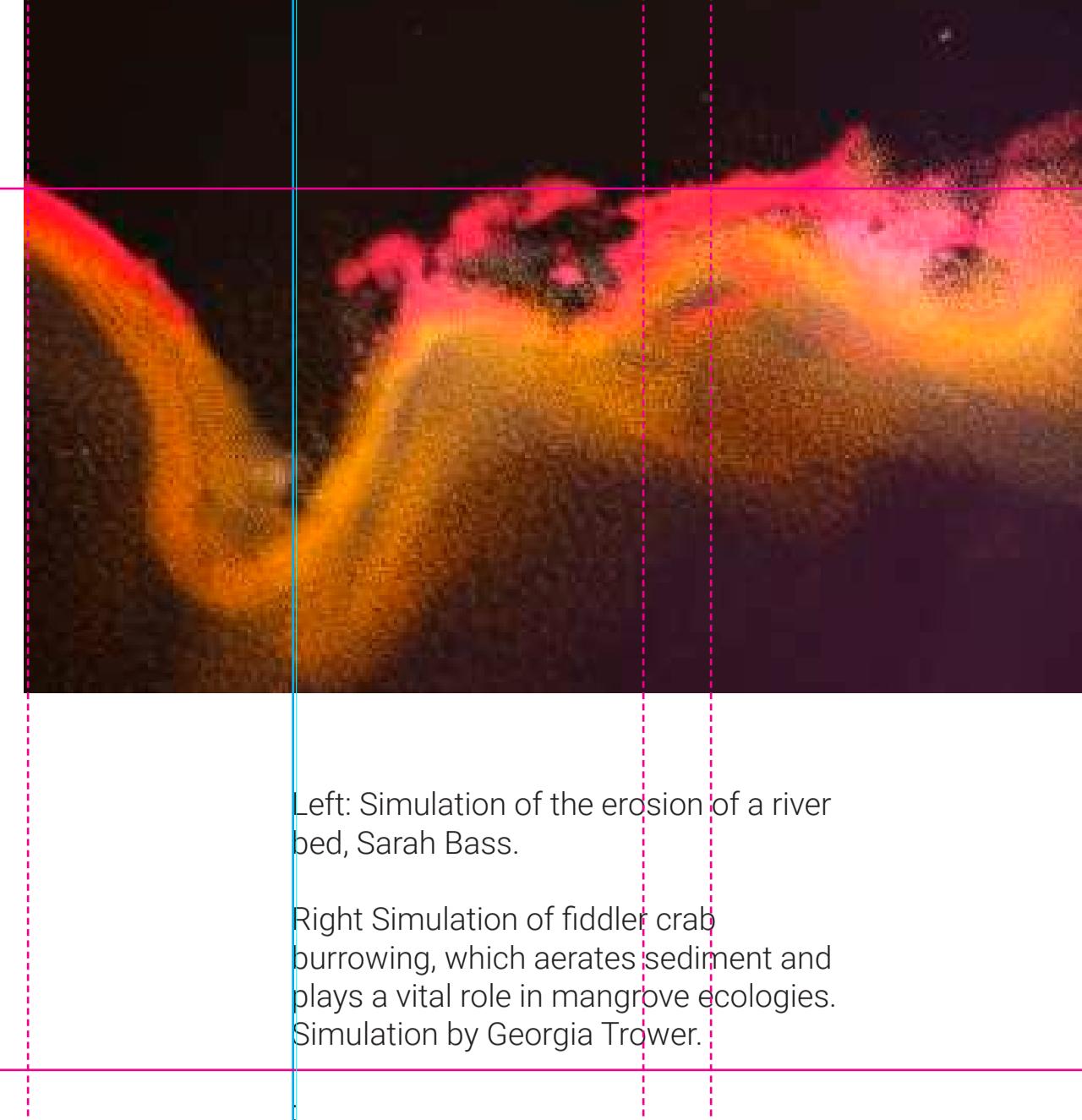
Cartography

Cartographic techniques were used in the studio to push understandings of monsoonal scale and difference. They produced spatial knowledge at scales usually considered too large to offer any valid questions for architecture – the scale of the earth, a subcontinent, a delta, a river, or of matters that were usually considered of no relevance to architecture – hyperaccumulating plant species, cyclone tracks, Instagram geotags. Mapping allowed students to develop an understanding of the wider monsoonal forces acting on a particular site or situation. It involved learning to access meteorological, satellite and other data and bringing them into architecture using the digital tools Rhino, Grasshopper, Realflow and the Adobe suite.



Hyperaccumulating plant species in India. These species are able to grow in soil or water with high-metal concentrations which they absorb through their roots into their tissues. Drawing by Tom Benson.

Infrastructures

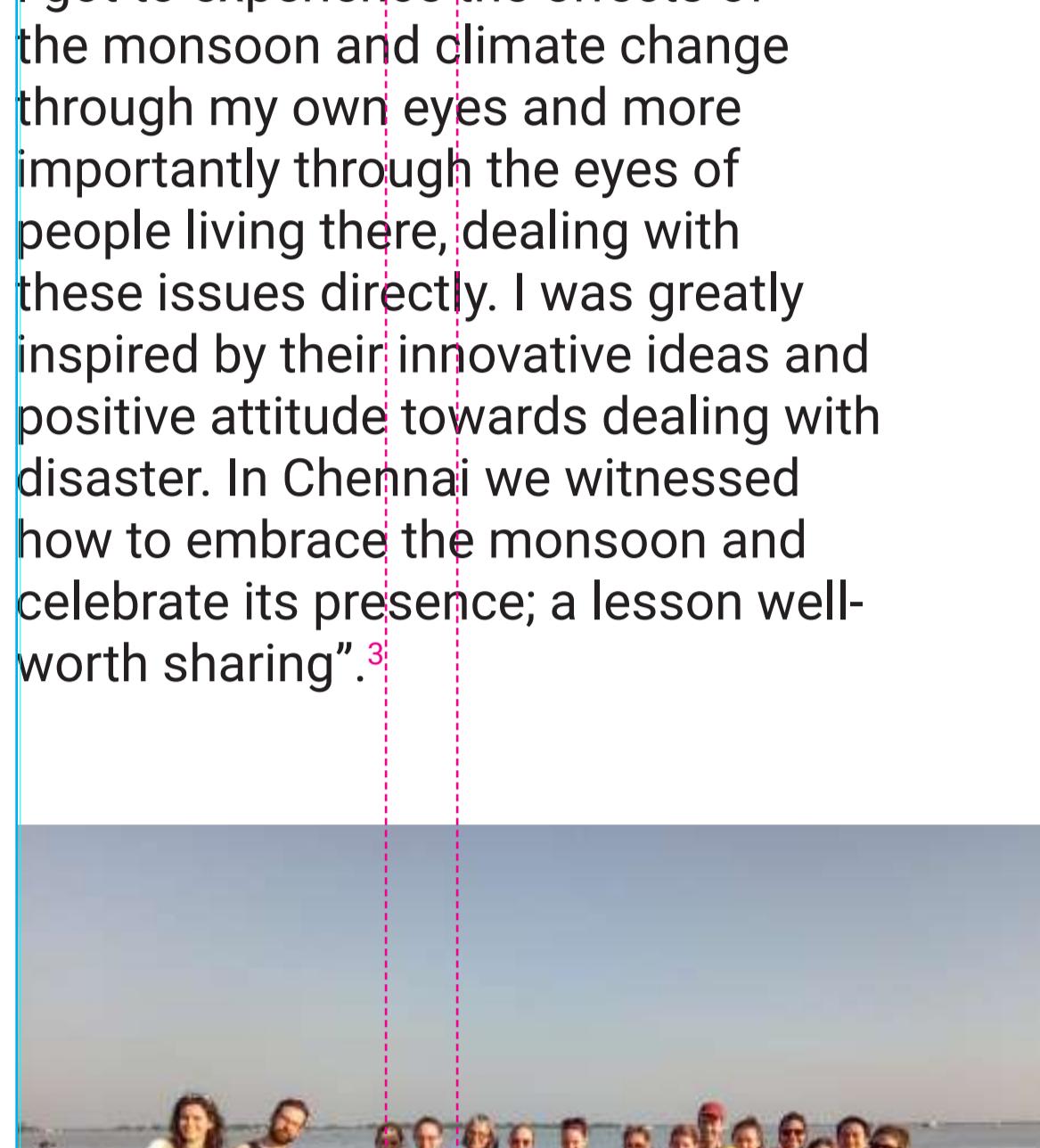
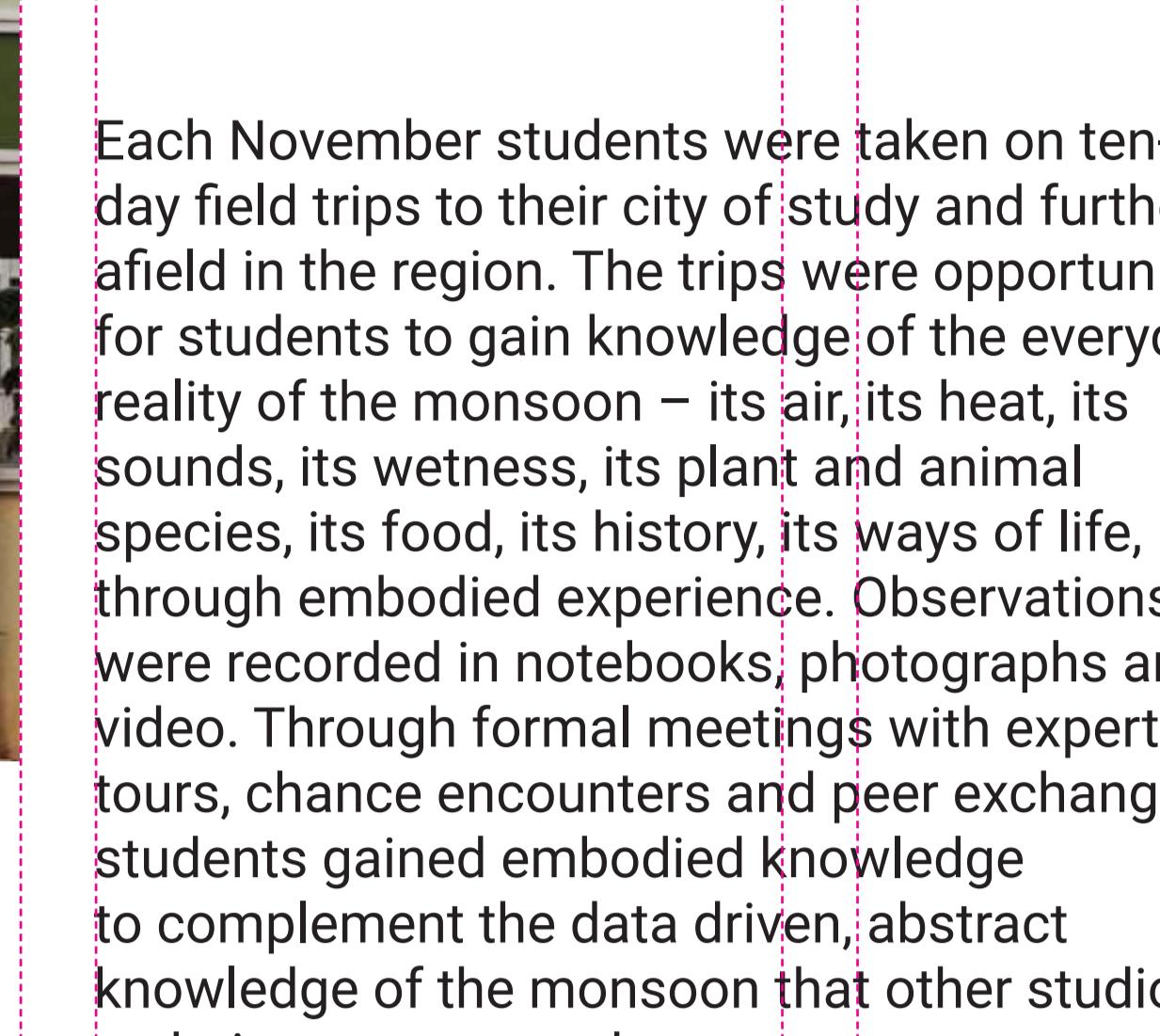


Left: Simulation of the erosion of a river bed, Sarah Bass.

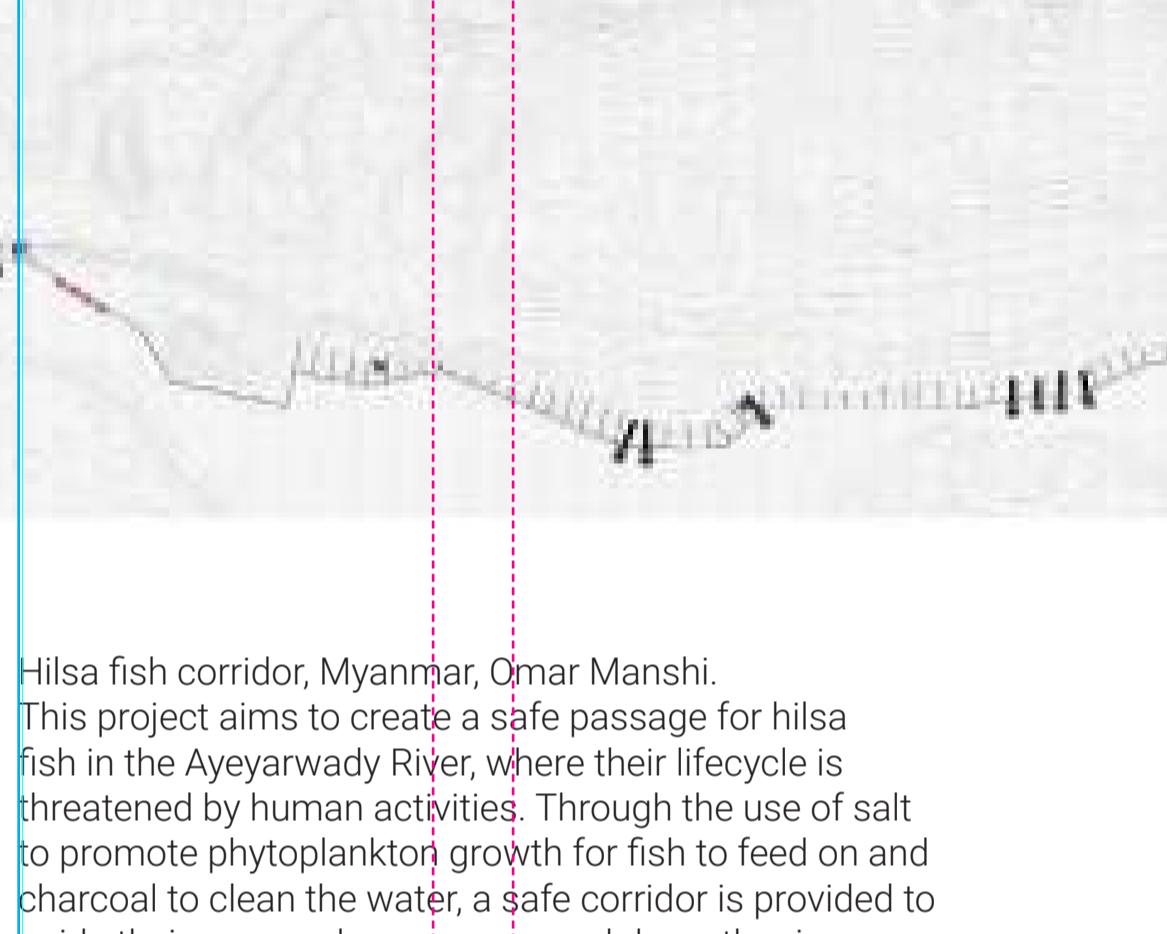
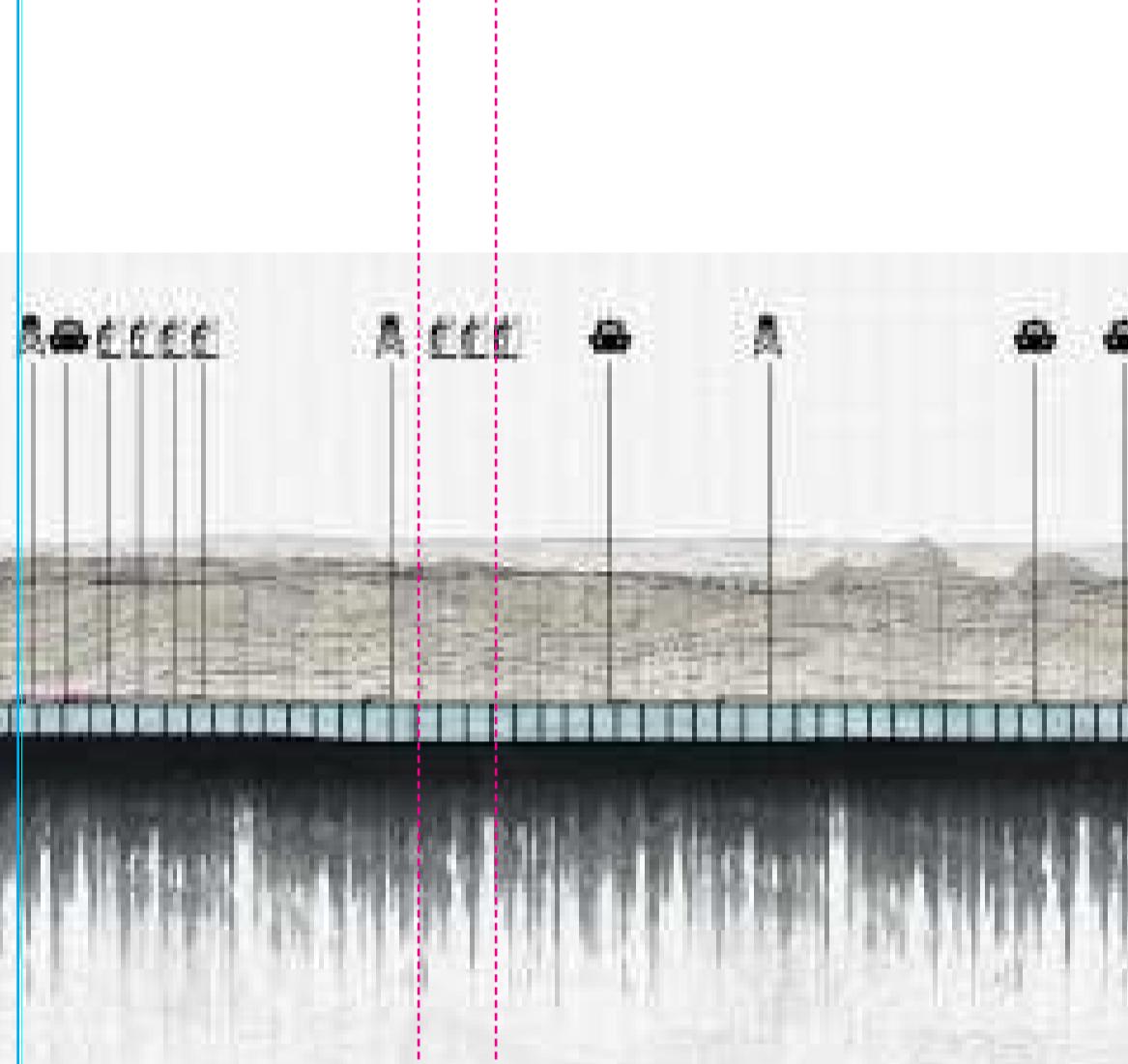
Right: Simulation of fiddler crab burrowing, which aerates sediment and plays a vital role in mangrove ecologies. Simulation by Georgia Frower.



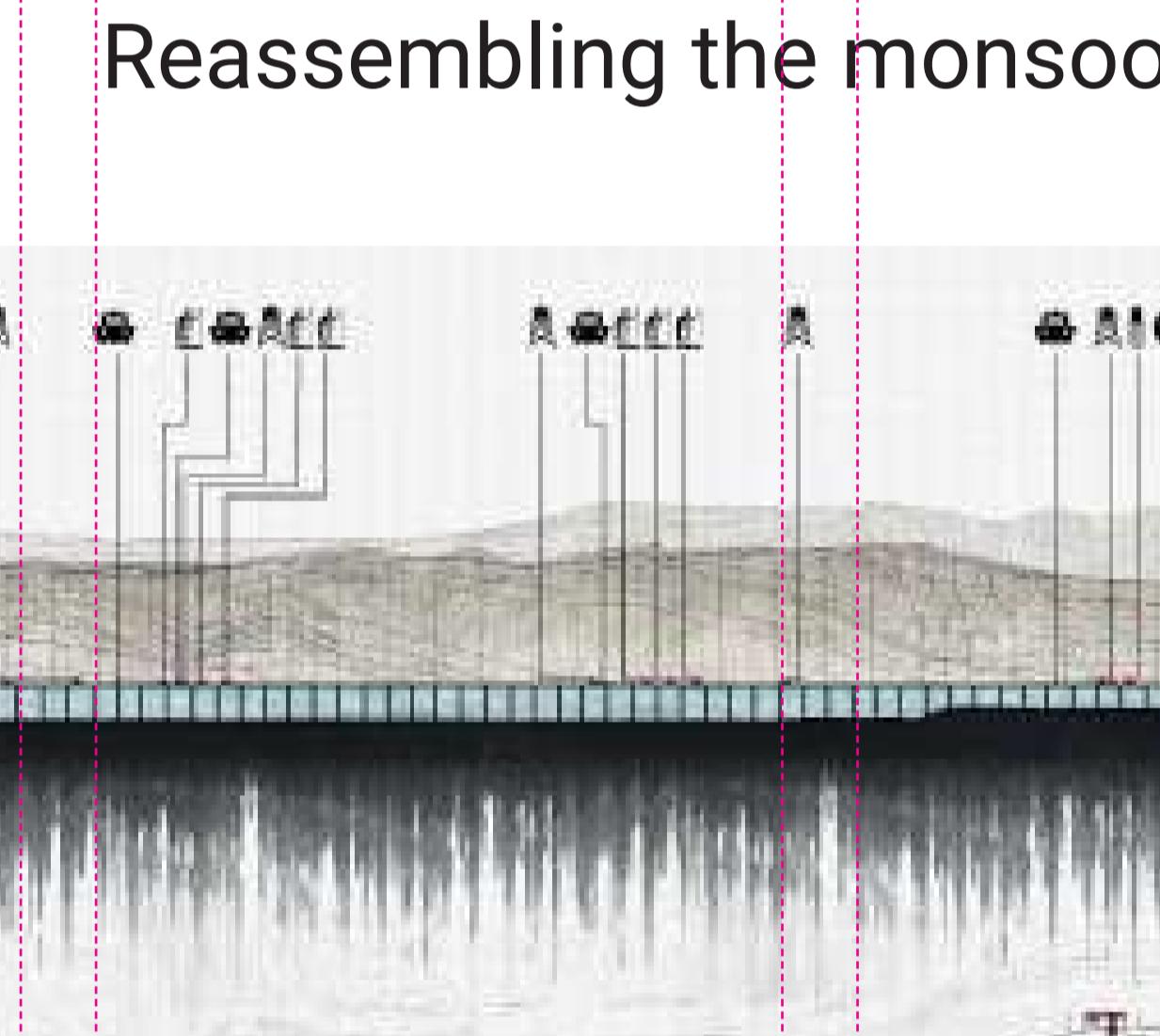
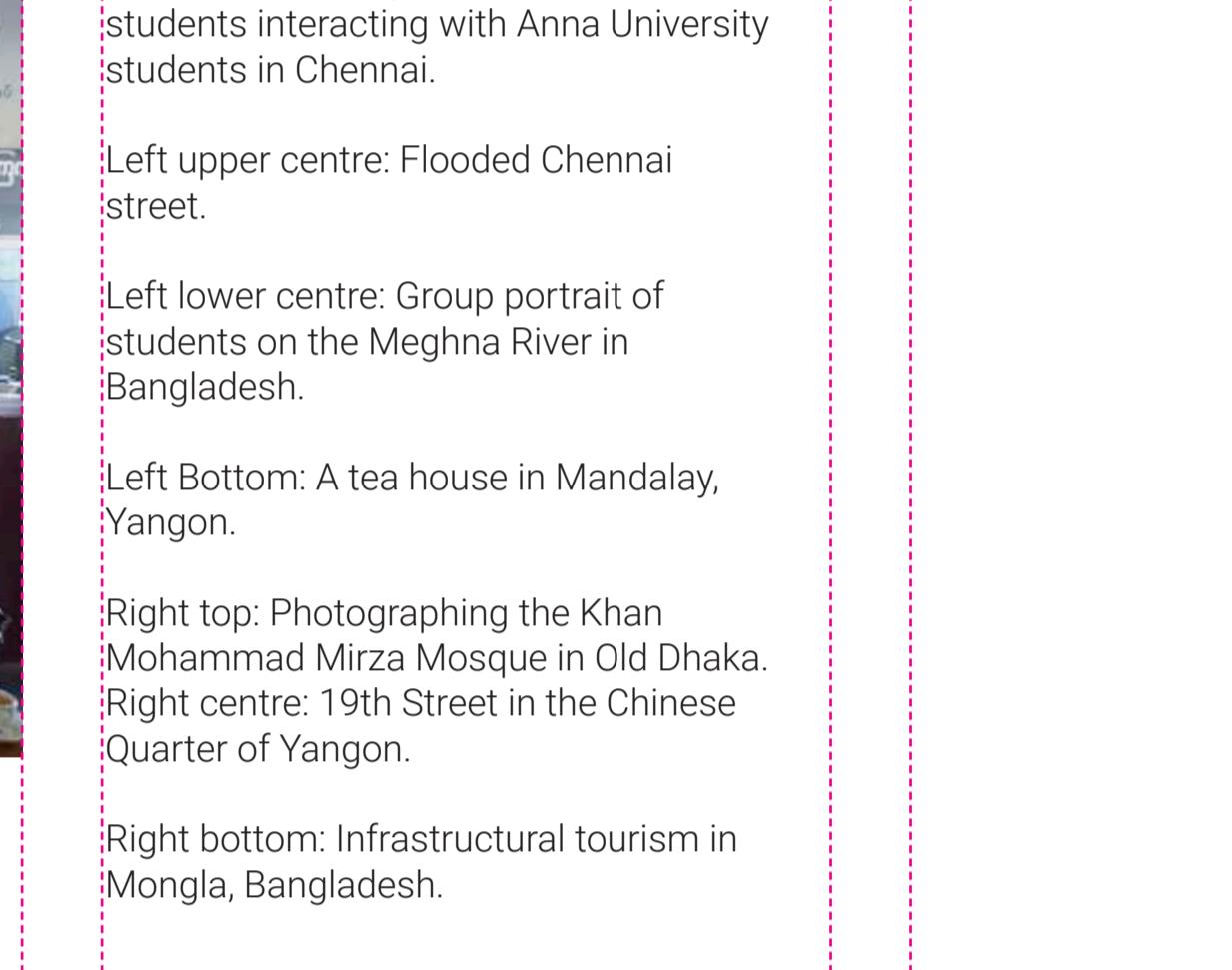
Embodied experience



"The field trip to Chennai, India was a key turning point. Empirical evidence makes one understand the issue beyond figures and statistics. I got to experience the effects of the monsoon and climate change through my own eyes and more importantly through the eyes of people living there, dealing with these issues directly. I was greatly inspired by their innovative ideas and positive attitude towards dealing with disaster. In Chennai we witnessed how to embrace the monsoon and celebrate its presence; a lesson well-worth sharing".³



Each November students were taken on ten-day field trips to their city of study and further afield in the region. The trips were opportunities for students to gain knowledge of the everyday reality of the monsoon – its air, its heat, its sounds, its wetness, its plant and animal species, its food, its history, its ways of life, through embodied experience. Observations were recorded in notebooks, photographs and video. Through formal meetings with experts, tours, chance encounters and peer exchange, students gained embodied knowledge to complement the data driven, abstract knowledge of the monsoon that other studio techniques generated.



Left top: University of Westminster students interacting with Anna University students in Chennai.

Left upper centre: Flooded Chennai street.

Left lower centre: Group portrait of students on the Meghna River in Bangladesh.

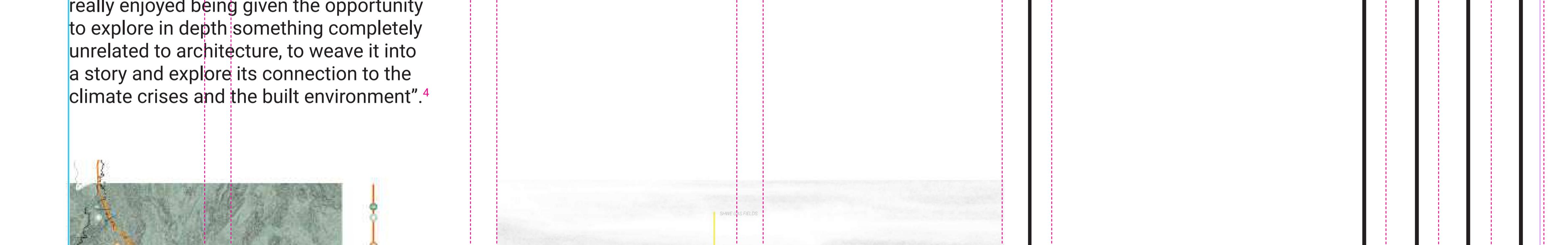
Left bottom: A tea house in Mandalay, Yangon.

Right top: Photographing the Khan Mohammad Mirza Mosque in Old Dhaka.

Right centre: 19th Street in the Chinese Quarter of Yangon.

Right bottom: Infrastructural tourism in Mongla, Bangladesh.

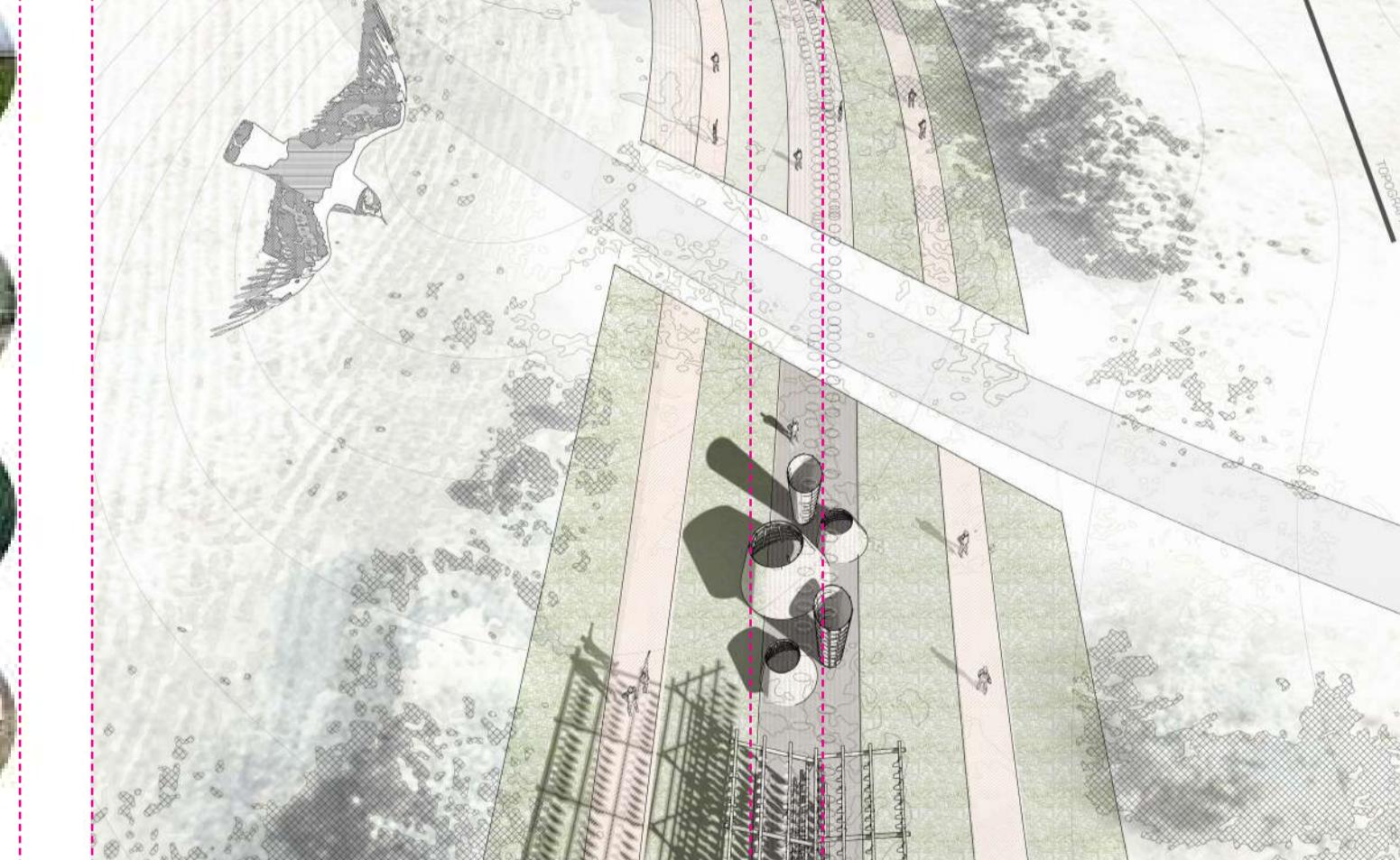
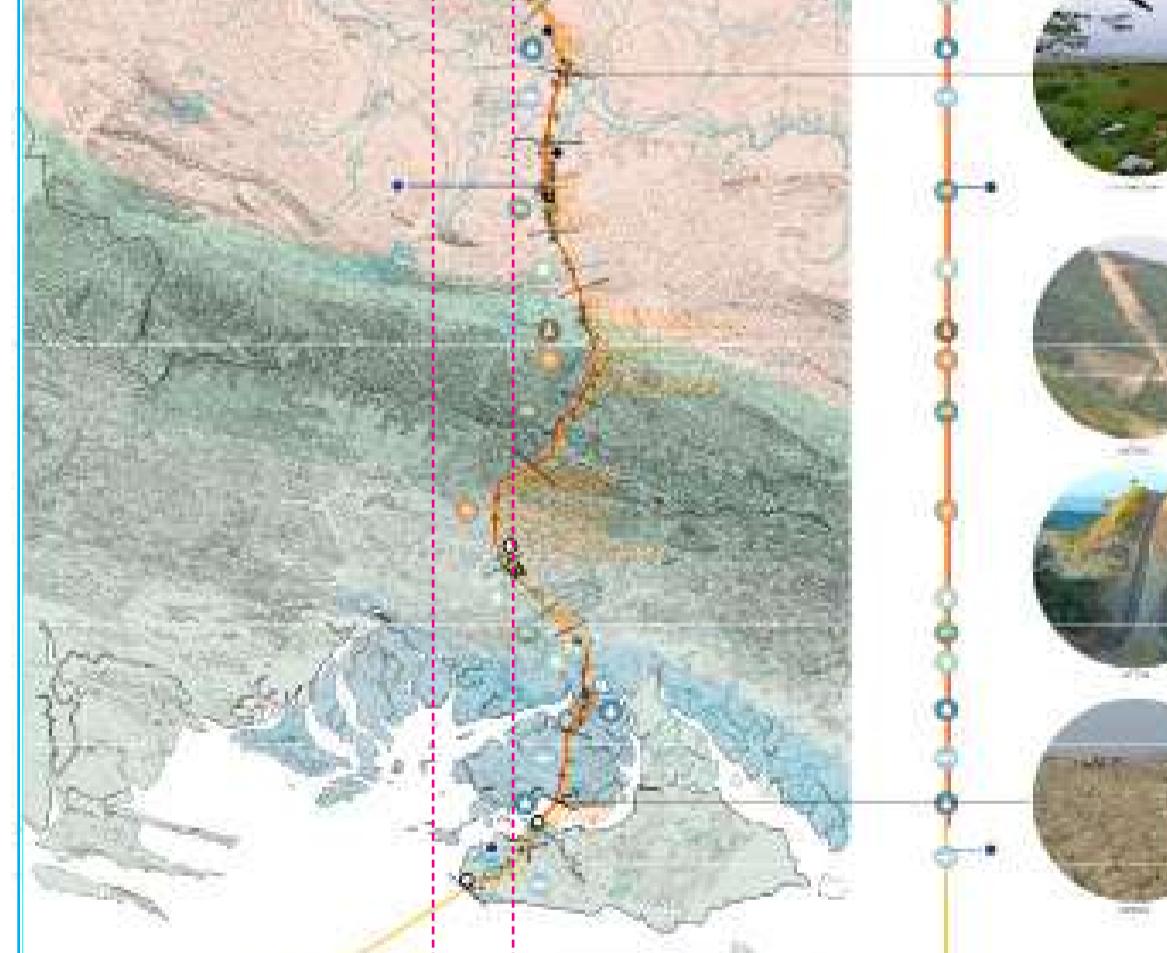
Reassembling the monsoon



Hilsa fish corridor, Myanmar, Gintar Manchi. This project aims to create a safe passage for hilsa fish in the Ayeyarwady River, where their lifecycle is threatened by human activities. Through the use of salt to promote phytoplankton growth for fish to feed on and charcoal to clean the water, a safe corridor is provided to guide their seasonal passage up and down the river.

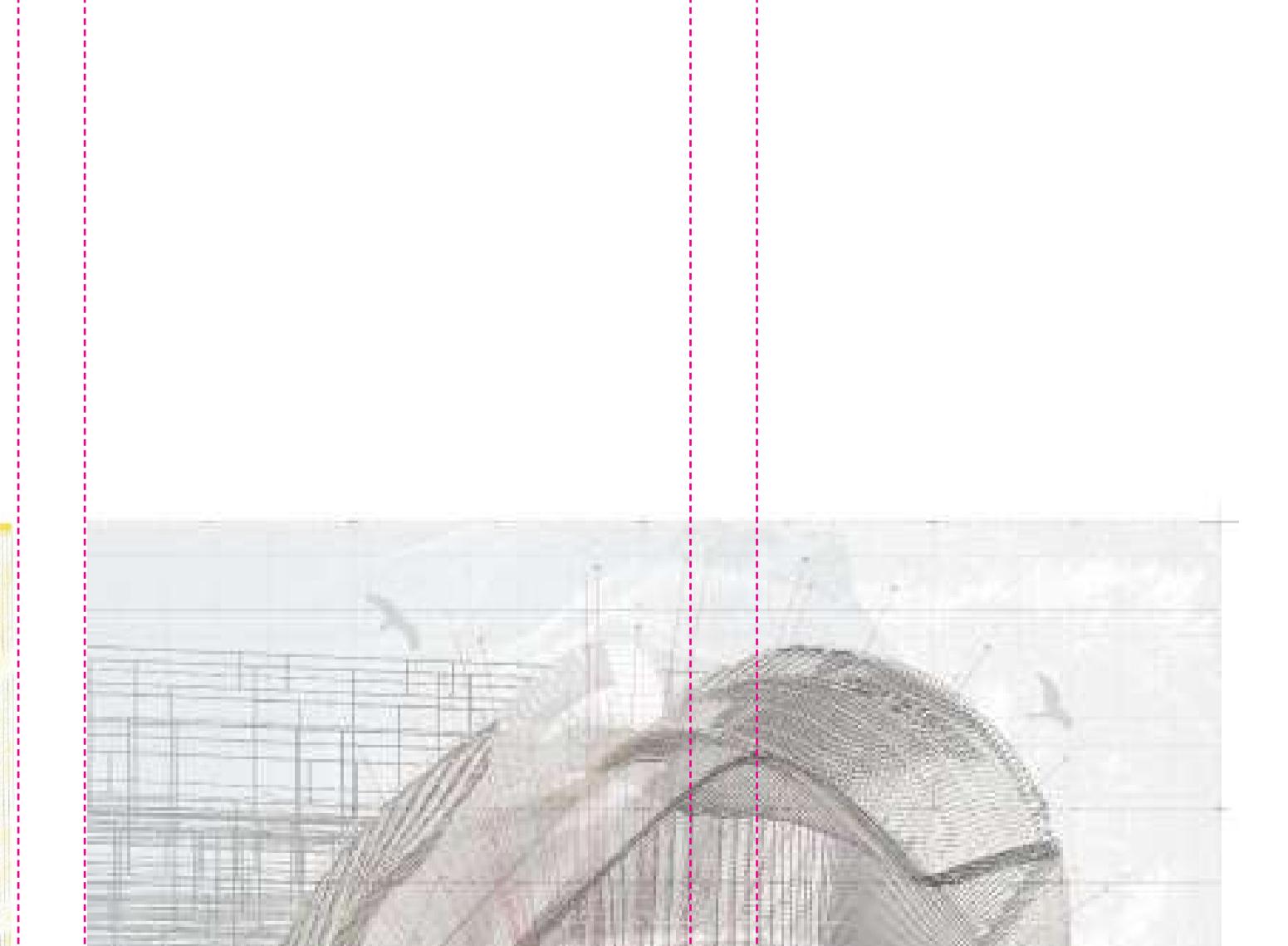
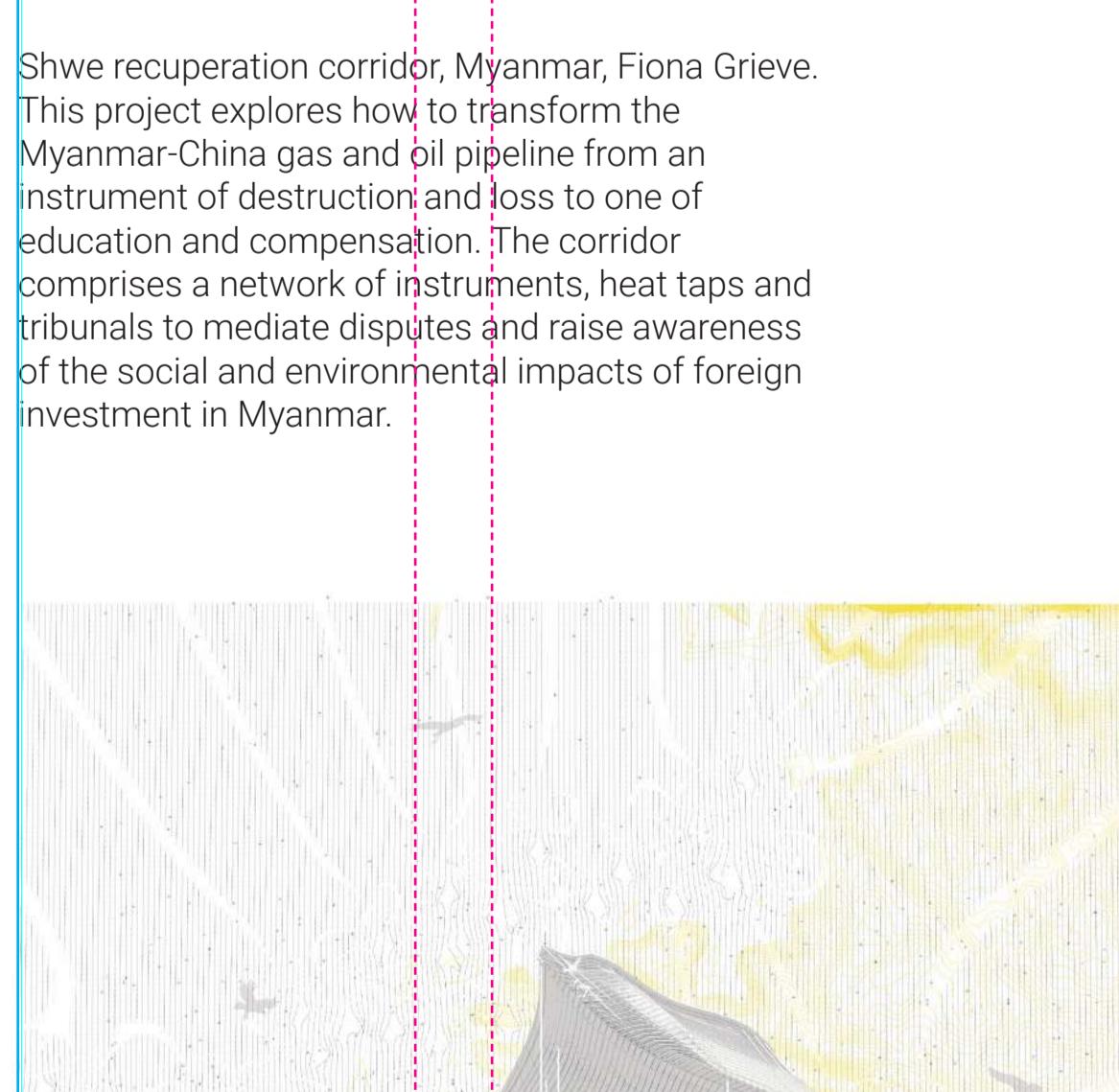
"The studio taught me that architecture is so much more than a reaction to its immediate site and needs of the user. The integration of science, research and policy that the studio pushed, from global to micro scales, made me aware of the numerous systems which are interwoven and can offer richness to a project. The seriousness with which the studio deals with the climate emergency and opens up wider discussions is something I think has to be recognised and celebrated. ... I really enjoyed being given the opportunity to explore in depth something completely unrelated to architecture, to weave it into a story and explore its connection to the climate crises and the built environment".⁴

Through mapping, simulation and fieldwork, students positioned themselves within a monsoonal life-world and identified a topic of enquiry for their design projects. Projects ranged in scale and complexity from a prototype to prevent the spread of water-borne disease in Dhaka to housing units shaped by wind in Chennai to a corridor for hilsa fish in the Ayeyarwady River in Myanmar. By starting with the monsoon, a far wider range of possibilities and strategies for design to reframe relations between humans, nonhumans and earth systems was opened up than would have been possible had one started with architecture.



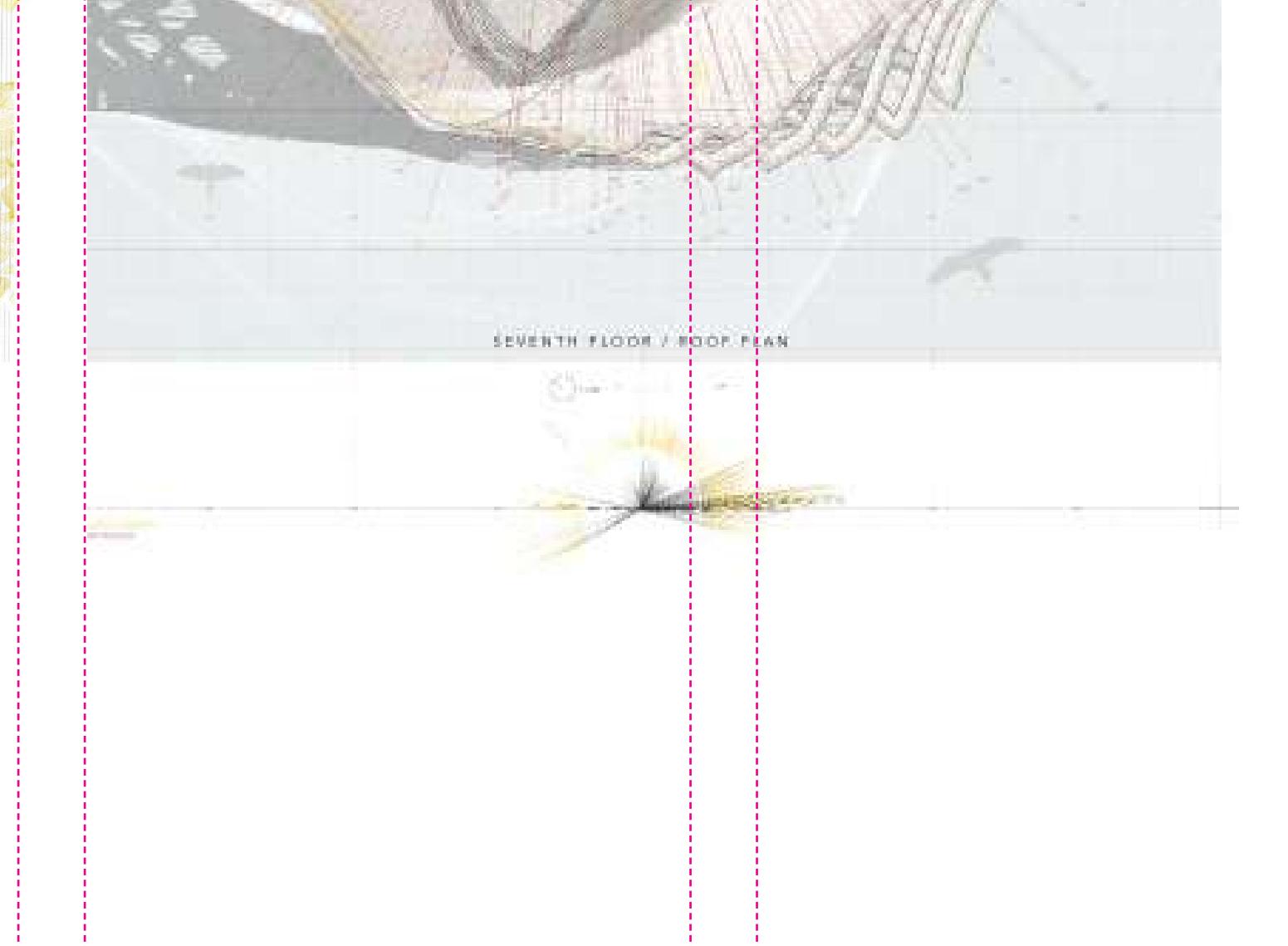
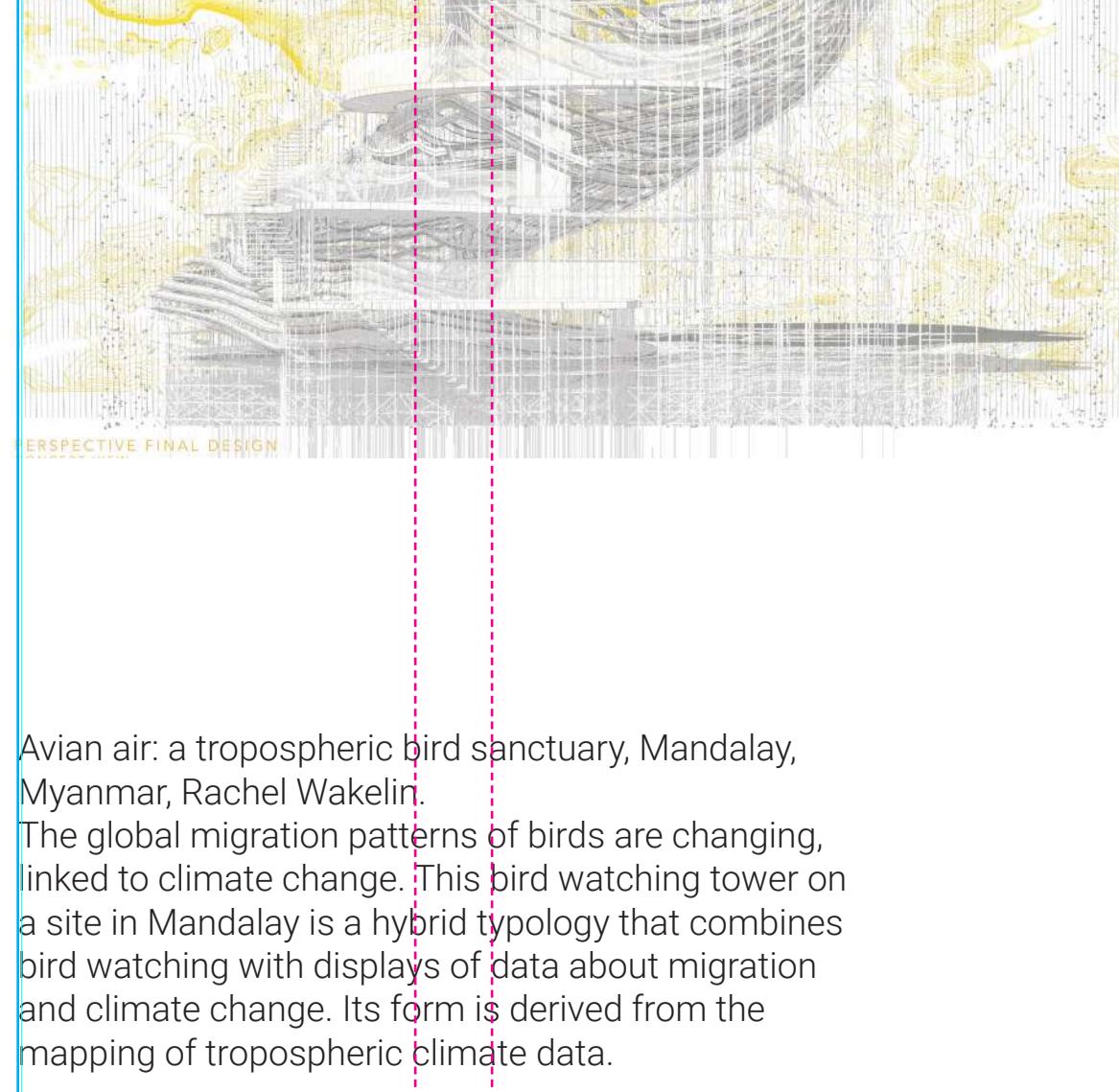
Shwe recuperation corridor, Myanmar, Fiona Grieve.

This project explores how to transform the Myanmar-China gas and oil pipeline from an instrument of destruction and loss to one of educational opportunity. The corridor comprises a network of infrastructures, heat tapes and tribunals to mediate disputes and raise awareness of the social and environmental impacts of foreign investment in Myanmar.

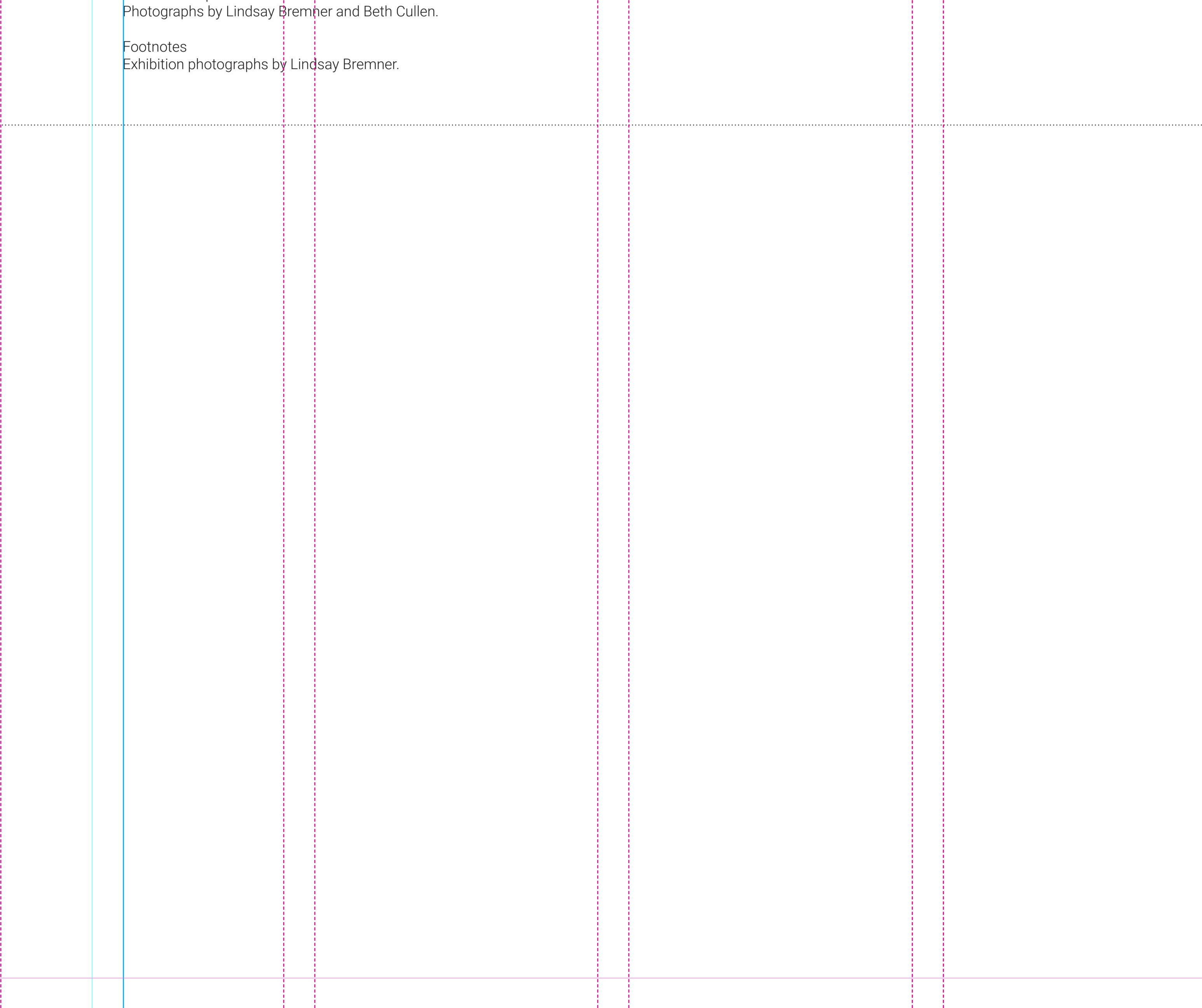
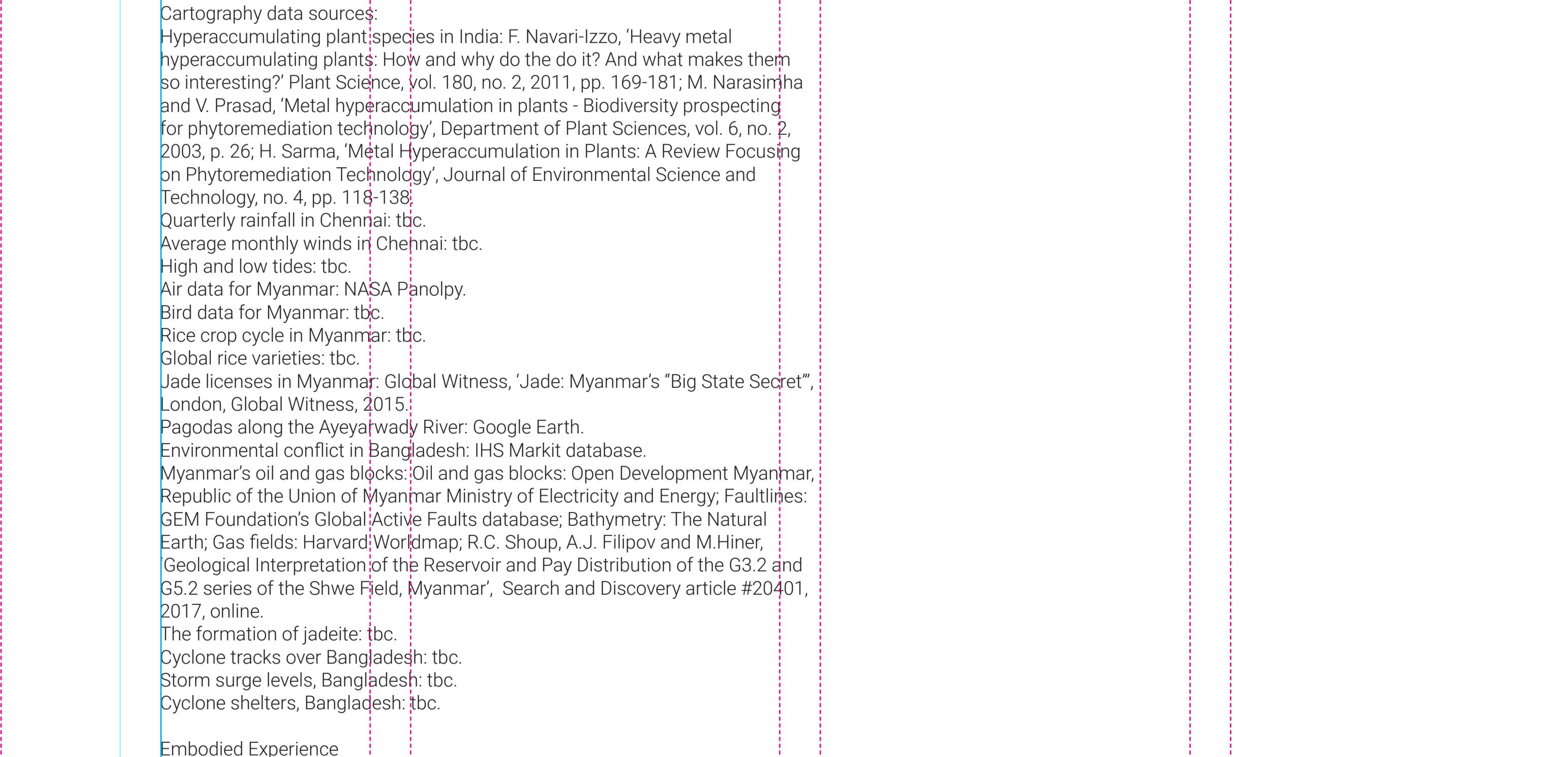
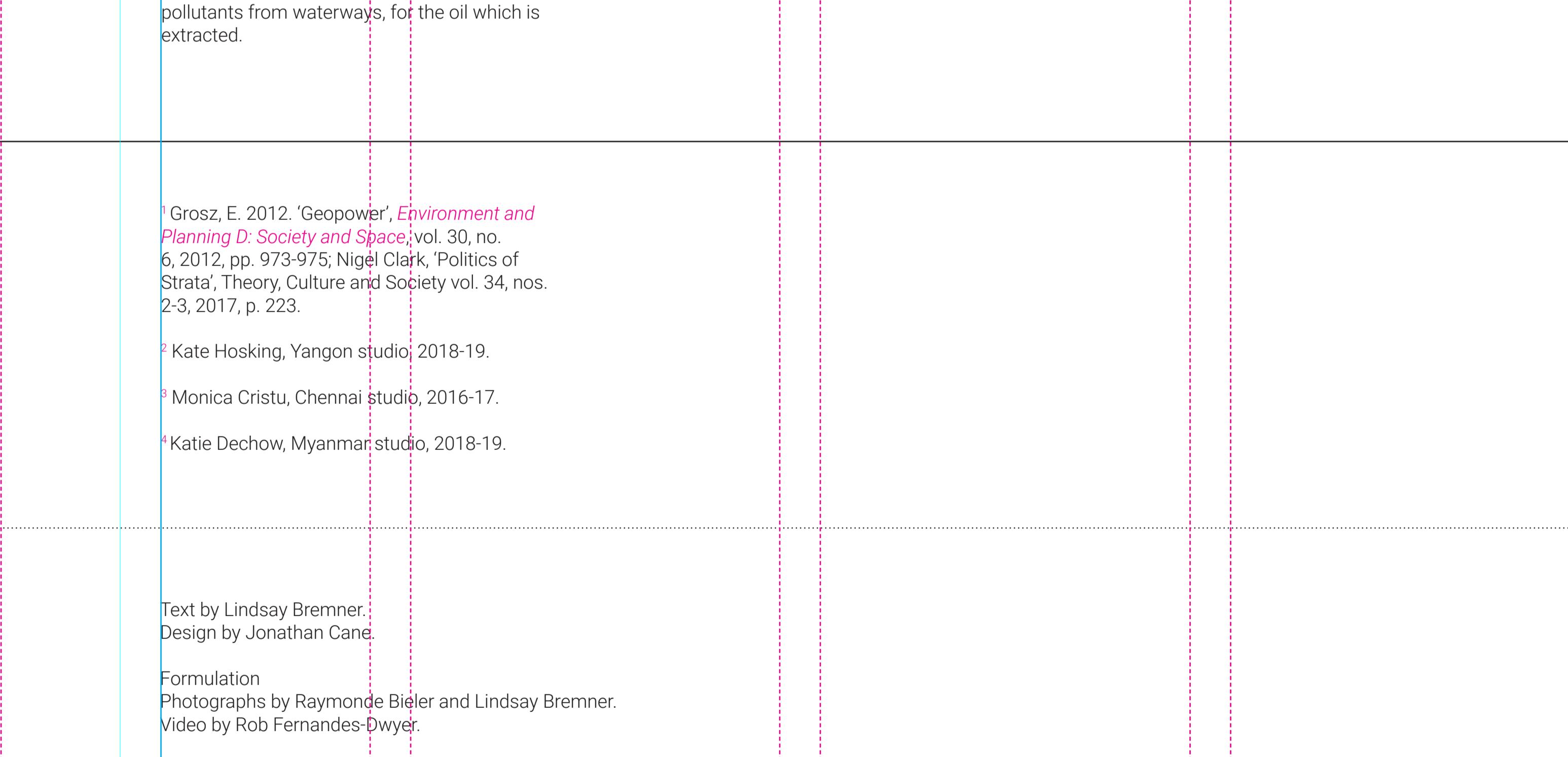
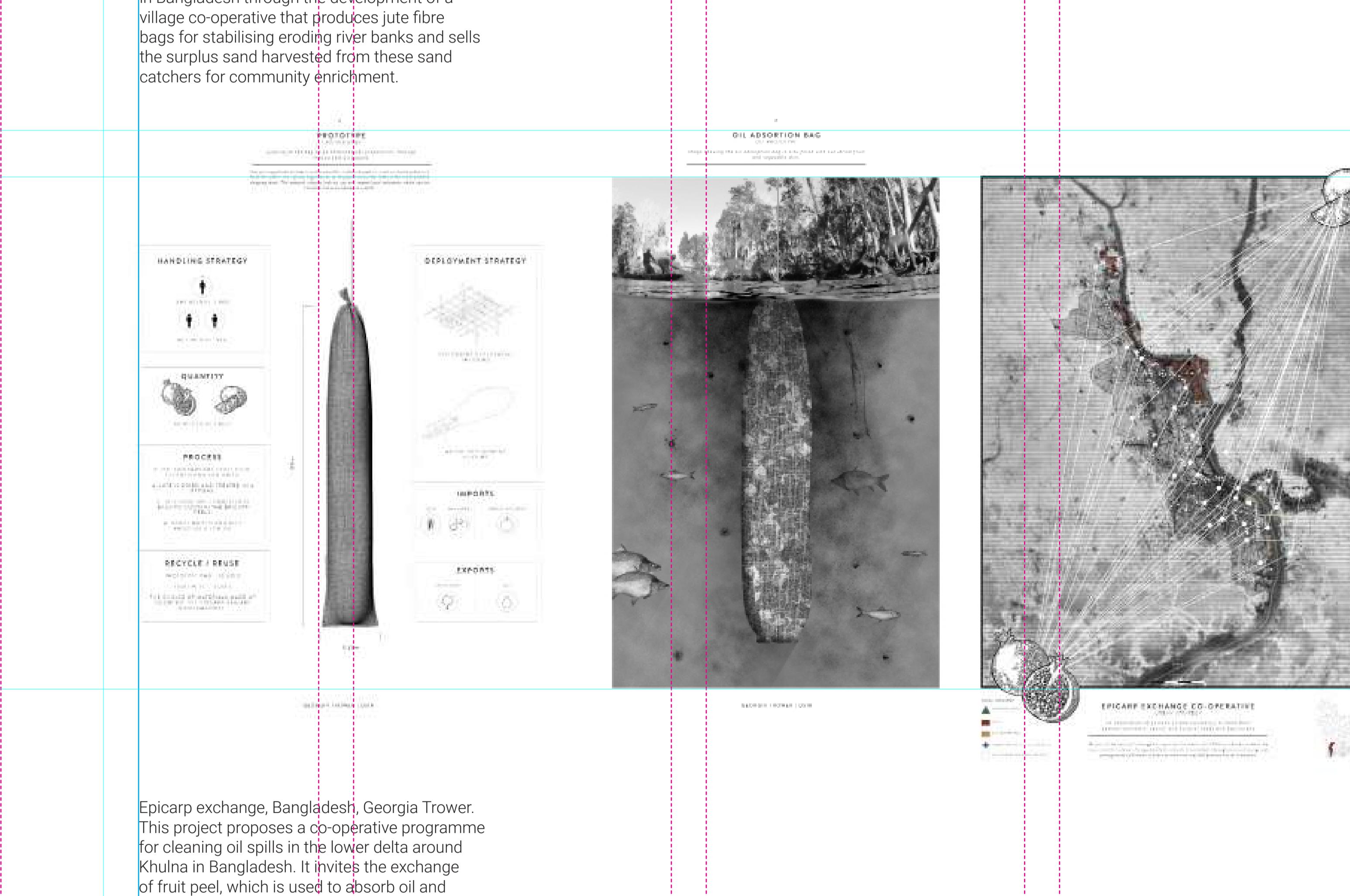
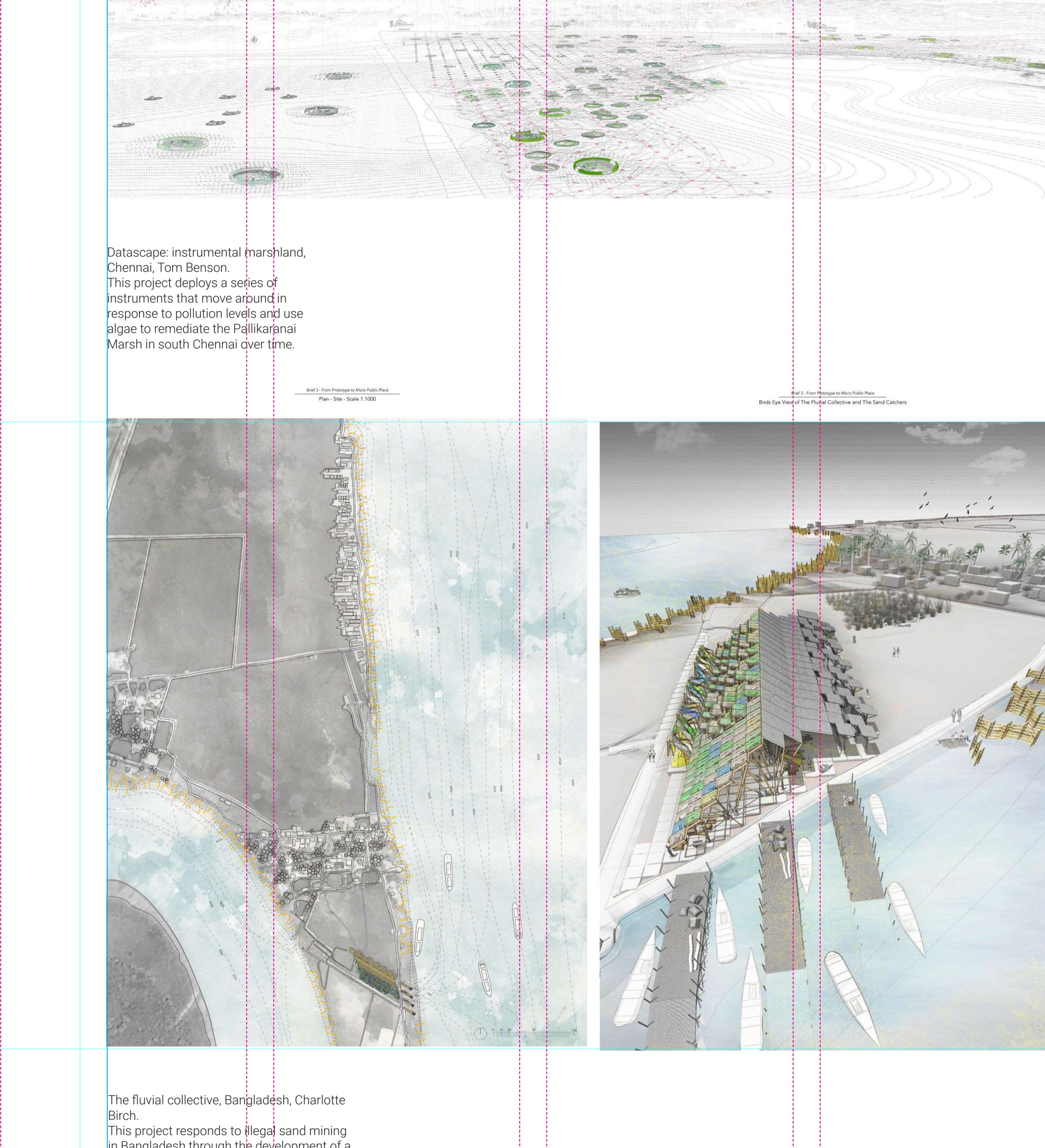
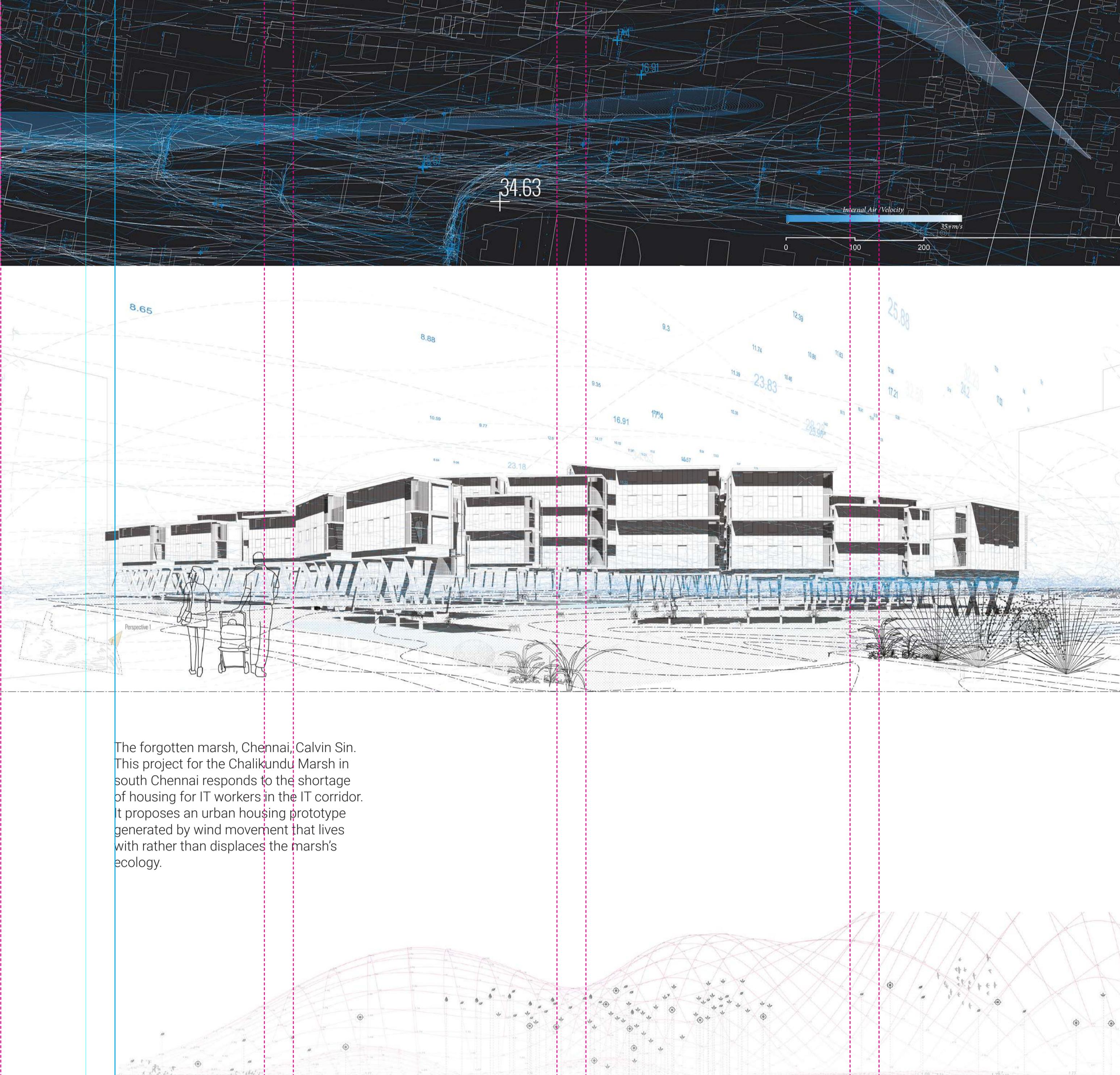
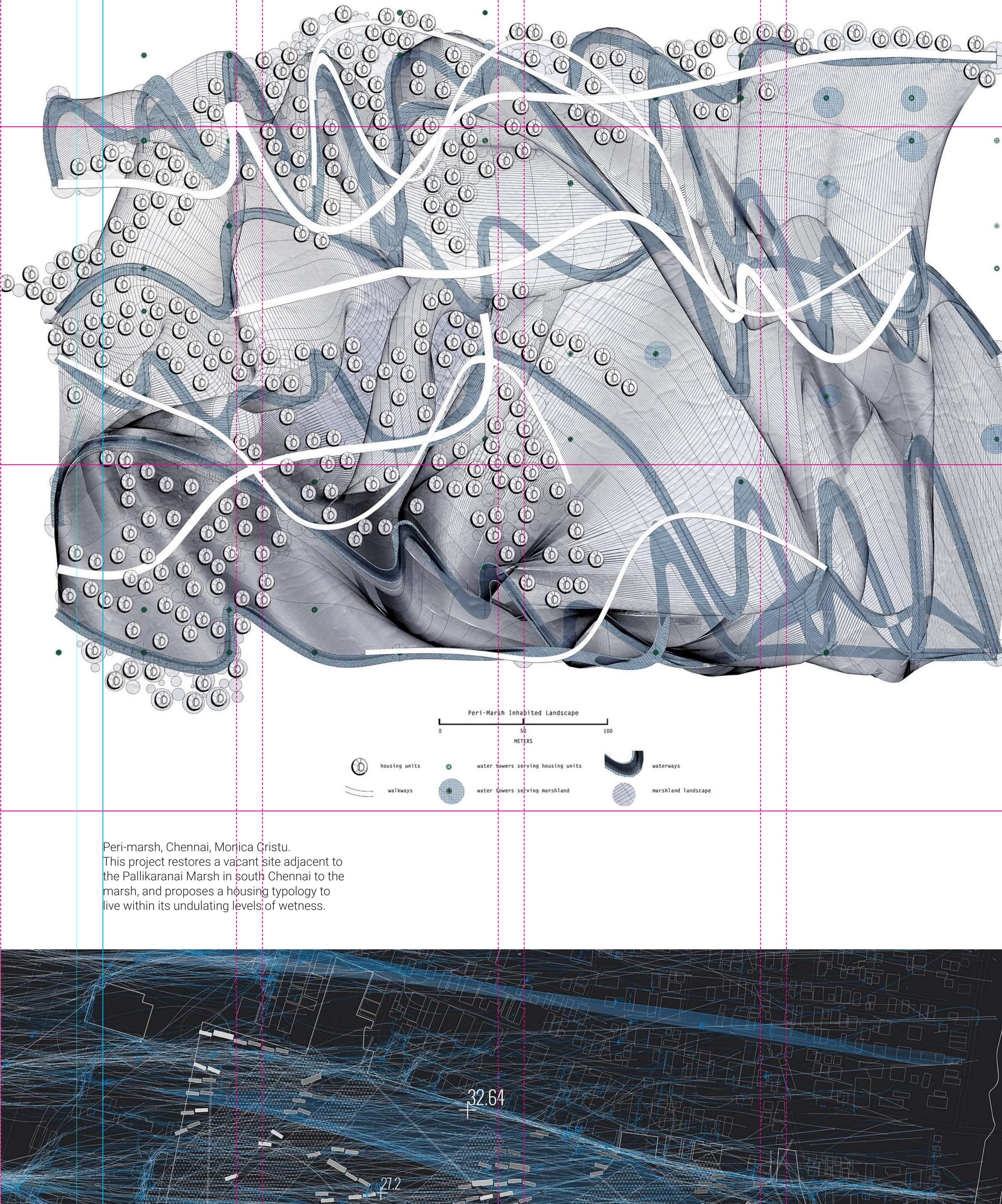


Avian air: a tropospheric bird sanctuary, Mandalay, Myanmar, Rachel Wakelin.

The global migration patterns of birds are changing, linked to climate change. This bird watch tower on a site in Mandalay is a hybrid typology that combines bird watching with a range of data about migration and climate change. Its form is derived from the mapping of tropospheric climate data.



Infrastructures



Matters	Chennai Dhaka Yangon London
Framings	Drawing Ethnography Space Time Pedagogy
Interspecies Interlocutors	Dragonflies Hilsa Fish Snakes Weeds

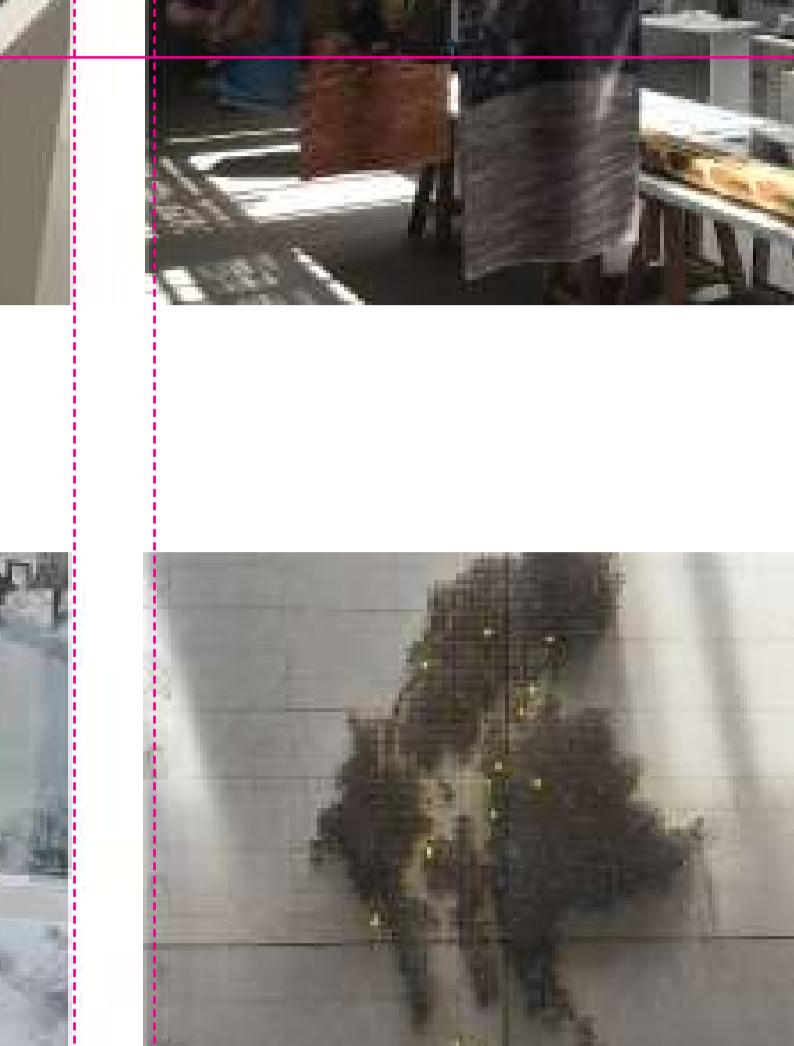
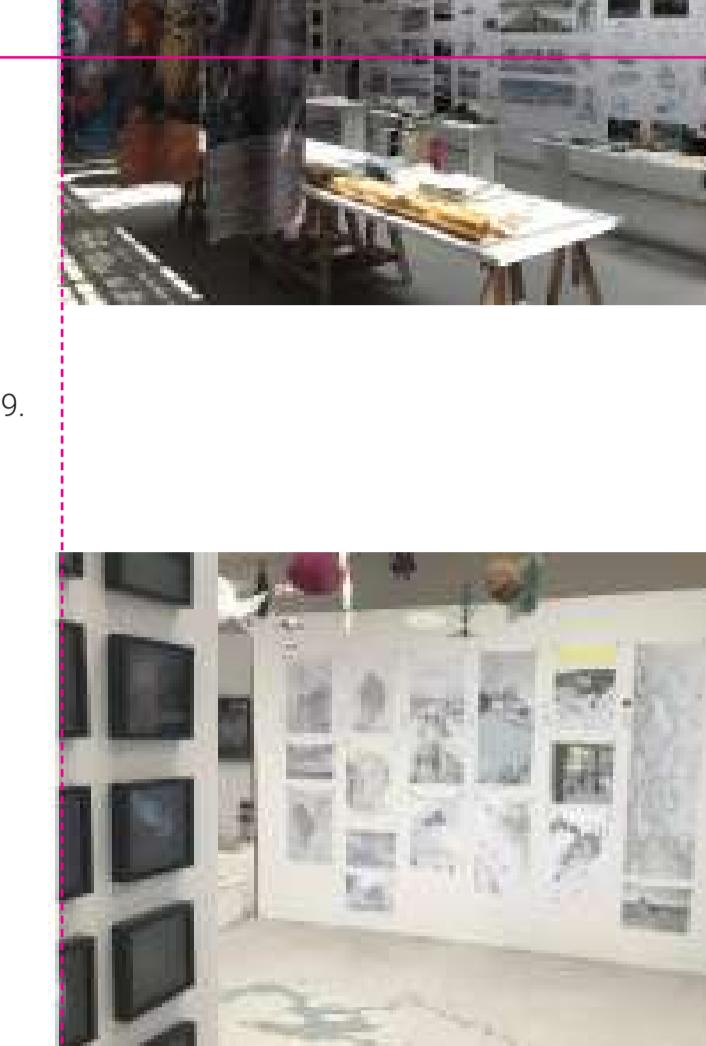
Infrastructures

Photographs of end of year exhibitions for each of the three Monsoon Resonances took place as part of the University of Westminster's School of Architecture and Cities OPEN exhibition, 2017-2019.

Below: Chennai exhibition, 2017.



Below: Bangladesh exhibition, 2018.



Below: Myanmar exhibition, 2019.

